SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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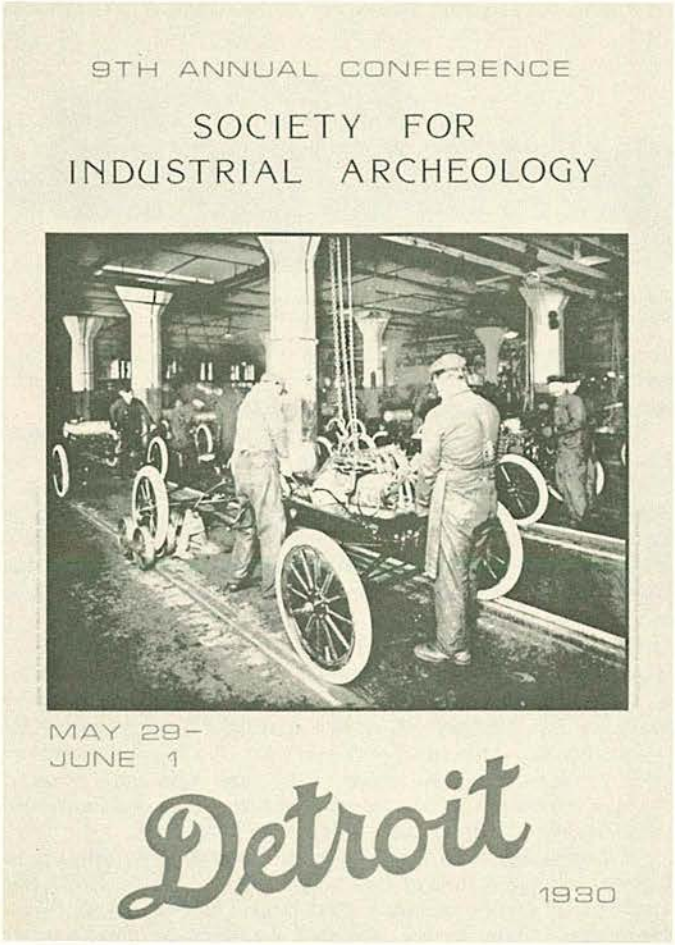
THE NINTH ANNUAL CONFERENCE: DETROIT



The following account of the 1980 annual conference was prepared by Craig Morrison. Photographs are by Robert M. Vogel.

If "Last night I went to sleep in DEEtroit city" went through the minds of some participants in the SIA's Ninth Annual Conference, held May 29-June 1, it most definitely was *not* followed by a chorus of "Lord, how I want to go home." The weekend came to an end all too soon for both hosts and guests as the Society's first conference to be held in the Midwest was more than a match for any that have preceded it. Although not a record, the attendance of 179 reflected the intense curiosity that is felt nationwide about this widely publicized but too rarely complimented city. Throughout the weekend, participants had an opportunity to see a fair sampling of the city itself as well as its industrial buildings and to gain at least an introduction to Detroit's complex social, ethnic, and architectural character. Some of the sites visited were legendary in the history of the American automobile industry, but there were enough surprises to show that there is much more to Detroit than "by day to make the cars and by night to make the bars."

Headquarters for the conference was the Dearborn Inn. During the late 1920s, Henry Ford built and operated an airport (it remains usable but is rarely used) near his headquarters and immediately adjacent to his growing Greenfield Village complex. To accommodate visitors arriving at the airport, he built the Dearborn Inn, a stately Colonial Revival building that remains a bastion of elegance amid the plastic of modern hotels. Among the unique features of the inn is a series of guest cottages behind the main building that replicates the homes of several famous Americans and speaks to Ford's intense interest in the artifacts of American history.

The gratitude of the Society must be extended to the officials of the Edison Institute, the parent organization of the Henry Ford Museum and Greenfield Village, for their hospitality throughout the meeting and for the time spent by several of their staff members in planning the event. Each conference participant was extended free admission to both the Museum and the Village for the duration of the weekend, several special events were held there, and the group was treated to a special nighttime opening of the Ford Museum—more of that later.

For those who may not be acquainted with it, the Edison Institute was dedicated to the honor of Henry Ford's most admired friend on Oct. 12, 1929, the Golden Jubilee of Light. For that occasion, Edison, working in his Menlo Park Laboratory which had been moved to Dearborn and restored, recreated the invention fifty years earlier of the incandescent light bulb. Visitors to Greenfield Village now can see the laboratory complex exactly as Edison left it that night, as well as nearly one hundred buildings assembled by Ford to illustrate, in his words, American life "as it was lived." Behind the Independence Hall facade of the adjoining Henry Ford Museum are an elegant decorative arts gallery nearly an eighth of a mile long and the fourteen-acre Hall of Technology, in which the artifacts of American industry are assembled in incredible quantity and quality. The objects range from washing machines to radio tubes, milk cans to articulated locomotives, and include a great automotive collection as well as a major collection of early steam engines, all maintained in operating condition.

OPENING EVENTS

Conference proceedings began on Thursday evening with the dedication by the American Society of Mechanical Engineers of two Natl. Historic Mechanical Engineering Landmarks located in Greenfield Village: the "Jumbo" Dynamo No. 9 (1882) from Edison's Pearl Street Station in N.Y.C.; and an 1891 triple-expansion engine-generator from Edison's Duane St. Station, also in N.Y. [see "ASME Landmarks," in a future issue]. Following this, participants gathered for cocktails in Lovett Hall, a grand ballroom in the Colonial style constructed on the Edison Institute grounds as a center for the study and performance of early

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American music and dance. Craig Morrison [SIA], an architect in Detroit, gave an illustrated introduction to the geography, history, and architectural development of Detroit, previewing some of the areas to be visited and providing a context for individual industrial sites included in the conference tours. Some

At the ASME landmarks ceremony Thurs. eve, John Bowditch starts up Armington & Sims engine. Engine is direct-connected to the Edison "Jumbo" Dynamo No. 9 in "Station A," a 2/3-scale replica of the Detroit Edison generating station where Henry Ford worked as night-shift engineer while building his first car.

guests were surprised to learn that Detroit, founded in 1701, is only about a dozen years younger than Philadelphia and that, not only does it have a distinguished history of architectural and industrial development, but at the height of its expansion in the 1920s it had every reason to believe that it would become the principal metropolis of the Nation. During these years it built several facilities unequalled in the world in size and scope—the world's largest Masonic Temple, movie palace, and Methodist Church, for example, all based upon the world's largest industrial plant, the automotive manufacturing center that was Detroit. Following this introduction was a show-and-tell slide session that concluded with Charles Hyde's illustration of several other of Detroit's "world's largest" landmarks—the world's largest tire, stove, and Presto Whip cans!

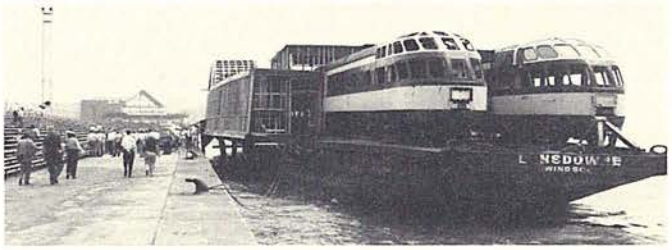
THE FRIDAY PROCESS TOURS

The first full day of the conference consisted of closely-scheduled tours through a variety of operating Detroit industries. First on the agenda was the **Cadillac Motor Car Co.'s Clark Street Assembly Plant.** This was built in 1921, consolidating Cadillac's operations at the Grand Junction, the location of several large industrial plants as early as the 1870s. The tour took visitors through the entire assembly process. Particularly impressive were the elaborate system of coordination that gets the right part to the right place at the right time, and the general level of professionalism among the workers. Often perceived as human machines, these people frequently meet problem situations to which they respond efficiently and with genuine concern for the quality of their product—as when, during our visit, the wrong engine came down the line for the particular vehicle being assembled.

On the opposite side of town, an elegant buffet lunch had been prepared at Detroit's **Waterworks Park.** This once was one of the genuine delights of Detroit. Its grounds were set with elaborate formal gardens, a water-powered floral clock (now at Greenfield Village), a bandstand, public library, and an extraordinary ornamental gateway. The filtration and pumping buildings were magnificant examples of the Victorian and Beaux-Arts periods, and included a tall, minaret-like standpipe that was a nationally known landmark. Much of this has disappeared in the last several decades, and the principal building now is the **High Lift Building,** designed in 1910 by Detroit architects Field, Hinchman & Smith. It is a great classical structure, ornamented with aquatic motifs, with a huge galleried interior space that once housed eight large steam pumping engines. The present machinery is of the much less spectacular electrically-powered variety, but the building remains a splendid example of a utilitarian structure treated as a major civic monument.

Fri.'s Process Tours included a stop at Detroit's Waterworks Park. Here, the gang enters the Beaux Arts-style High Lift Building (1910-13).

Docked at the Waterworks is the **S.S. *Lansdowne***, one of the treasures of Great Lakes history. This is a side-wheel railroad car ferry built in 1884 and originally equipped with two horizontal steam engines built in 1872 by E. Gilbert & Sons, of Montreal. The vessel, with its original engines, remained in constant service until 1970, when a paddle shaft broke and damaged the port engine beyond repair. The paddlewheels and pilot house were removed so that the vessel could be used as a barge, still transporting railroad cars from Detroit to Windsor, Ont., and still carrying her original engines. In 1976 the *Lansdowne* capsized at her dock, but intense historic preservation interest prompted the City of Detroit to purchase the ferry and arrange for her restoration as a floating restaurant. As part of this work, one of the engines is to be restored



The late *Lansdowne*, side-wheel railroad car ferry (1884), retired in 1976 and now in process of reincarnation as a city-owned restaurant.

as a moving exhibit feature. Dining rooms will be housed in two vintage railroad observation cars that have been permanently attached to rails on the *Lansdowne's* deck.

Near Waterworks Park are the plants of the **Stearns Pharmaceutical Co.** (1899, William B. Stratton, architect), the **Parke-Davis Pharmaceutical Co.** (founded in 1867 and now a National Historic Landmark), and the **Morgan & Wright Bicycle Tire Co.** The latter structure was built 1905-1925, after the designs of Detroit industrial architect Albert Kahn. Now owned by the **Uniroyal Co.,** this complex of twenty multi-storied buildings contains over three million sq. ft. of manufacturing space. In the Detroit River, extending from Uniroyal to the Waterworks, is **Belle Isle.** This large island was purchased by the City of Detroit for use as a public park in 1879, and preliminary plans were drawn by Frederick Law Olmsted. Much like Olmsted's Central Park, Belle Isle has become the premier park of the city. In addition to its many acres of picnic grounds, athletic fields, and wilderness areas, it contains the country's oldest public aquarium, a great glass-domed conservatory, and the Dossin Great Lakes Museum.

Next stop was the **Connor's Creek Generating Station** of the Detroit Edison Co. Built in 1914, with a major addition in 1951, this was one of Detroit Edison's first large-scale fossil fuel plants constructed within the city. The earliest equipment remains intact in the building but is no longer used. The two 1951 turbines remain in use. Conveniently, at the time of our visit one turbine was in the midst of a major overhaul so that we were able actually to step into its innards, from which the rotor had been removed.

Next, the tour buses again crossed the entirety of Detroit to their next stop, Dearborn. En route were seen the **Chrysler Jefferson Avenue Assembly Plant** (originally the **Chalmers Motor Car Co.,** built 1907-1917, Albert Kahn, architect), the **Budd Manufacturing Co. Headquarters and Plant** (1915-1940, the headquarters an

The SIA *Newsletter* is published six times a year (January, March, May, July, September, and November) 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 reuse of historic industrial and engineering sites, structures, and equipment. Annual membership: individual, $20; couple, $25; institutions, $25; contributing, $50; sustaining, $100; students, $12. Send check payable to SIA to Treasurer, Room 5020, National Museum of History and Technology, Smithsonian Institution, Washington, D.C. 20560; all business correspondence should be sent to that office. Editorial correspondence should be sent to CAROL POH MILLER, Editor, SIA *Newsletter*, Program for the History of Science and Technology, Mather House, Case Western Reserve University, Cleveland, Ohio 44106.

adaptation of Independence Hall), the sites of the **Hudson Motor Car Co., and the Briggs Manufacturing Co.,** several other **Chrysler** and **Fisher Body** facilities, and the **Packard Motor Car Co.** (1903-1911, Albert Kahn, architect). Our destination was the famed **Ford Motor Co. River Rouge Complex.** This plant was begun in 1917, when Henry Ford gained full ownership of the company he had founded. He decided to expand from his Highland Park headquarters to a new location on land his family had owned for many years. Ford's architect was Albert Kahn, who masterfully handled the planning and execution of this facility, which today covers 2,000 acres and employs up to 75,000 workers. The complex embraces literally every aspect of automobile manufacture, from the smelting of iron ore to final assembly. Production of component parts and materials is all done at the Rouge, and, for example, glass produced here is marketed for automotive and building use throughout the world. (We noticed later at the **Chrysler Glass Plant** that Ford Rouge glass was being used.) During our all too brief drive-through visit we saw the *William Clay Ford* (largest of the company's fleet of ore carriers) being unloaded and were given enough facts and figures by our well-

Blast furnaces and ore dock at Ford Motor Co.'s River Rouge plant.

informed guide to get a feel for the awesome scope of this factory that is as large as a medium-sized city.

The **Chrysler Corp. McGraw Avenue Glass Plant**, built in 1917 by the Saxon Motor Car Co. to replace an earlier plant that had been destroyed by fire, was our next stop. It was first used to produce Liberty Motors for airplanes, was bought by General Motors in 1926 to produce the La Salle automobile, and later by Chrysler to produce the De Soto. The facility now produces finished glass for several Chrysler products. Processes seen here included glass cutting, laminating, annealing, and polishing. Highlight of the visit was the building itself, a scarcely-altered example of the wide-bay, glass-enclosed factory originated by Albert Kahn.

From the glass plant, we again traveled to central Detroit for what was to many the highlight of the entire trip. It was unprecedented for the SIA to visit a major art museum, but the dignity (and air-conditioning) of the Detroit Institute of Arts proved an excellent counterpoint to the nitty-gritty of the process tours. Focus of the visit were the famous **Diego Rivera murals** depicting the history of Detroit [see SIAN Mar. 80:5]. In 1932, with the sponsorship of Edsel Ford, the institute commissioned the Mexican muralist to create an extensive cycle of frescoes in the

Fri. afternoon tour stop at the Detroit Institute of Arts, where the Diego Rivera murals held everyone's attention.

museum's Garden Court. The frescoes consist of numerous small panels filled with a variety of allegorical subjects executed in Rivera's robust and powerful style, as well as two immense panels illustrating contemporary automobile manufacture. In the latter

Rivera mural detail: the zoomorphism of IA.

are pictured the workers and the machines, the owners, the engineers—even a group of dour-faced visitors on a plant tour. The sight of the frescoes was thrilling to a group whose sensitivity to that particular industrial process had been heightened by the morning's visit to the Cadillac Assembly Plant. The artist had truly captured the essence of the assembly process. Apart from their artistic merit, the Rivera frescoes are important historical symbols as well; once, because of their controversial style and subject matter and the artist's advocacy of communism, there were public outcries to have the paintings destroyed. Institute officials were firm in their resolve that the frescoes would remain, however, and today they are recognized around the world as one of the monuments of 20th c. Western art.

Last stop on Friday's tour was the **Stroh Brewery.** Stroh's was established in 1850, remains family-owned, and is one of the largest breweries in America. The present complex was begun in 1912 and has been added to and modified continuously over the years. A feature of Stroh's is the original series of six copper fire-brewing kettles set in Pewabic art tiles. During the tour, a torrential thunderstorm sent everyone running for cover. The storm, accompanied by tornado warnings, provided some visitors with a fresh insight into summer living in the Great Lakes region. During a lull in the storm, the group adjourned to the "Strohaus" for a buffet-style dinner of cold cuts, salads, and limitless pitchers of Stroh's beer. After dinner, candidates for SIA office each made a short presentation. Pres. Ted Penn then presented former *Newsletter* editor Robert Vogel with an effusive "Letter of Commendation" from the N.Y.-based Newsletter Clearinghouse, which deemed Vogel's brand of photo-journalism worthy of special recognition. Everyone present heartily applauded their judgment. The day's activities concluded with a rare nighttime opening of the Henry Ford Museum, at which SIA vice-pres. John Bowditch demonstrated and described a selection of the museum's extensive collection of stationary steam engines.

THE SATURDAY PROCEEDINGS

Saturday dawned fair, clear, and beautiful. This, of course, was the day to remain indoors in darkened rooms listening to papers. The quality of the presentations held the interest of a large audience that might well have been tempted to spend its time elsewhere, out-of-doors. After lunch, the annual business meeting was opened by Pres. Penn, who acknowledged the outstanding contributions of members John Bowditch, Rosemary Papp, and Charles Hyde in planning all arrangements for the Detroit meeting. Penn then humorously donned his safety glasses (distributed gratis at the Chrysler Glass Plant tour) to better see his notes on the meeting's agenda. Election results were announced as follows:

Officers

President — John Bowditch, Ann Arbor, Mich. Curator, Power & Shop Machinery, Henry Ford Museum.

Vice President — Robert M. Vogel, Wash., D.C. Curator, Divn. of Mechanical & Civil Engineering, Natl. Museum of History & Technology, Smithsonian Institution.

Secretary — Michael B. Folsom, Cambridge, Mass. Research Assoc., Program in Science, Technology, & Society, M.I.T.

[Marlene Nicoll continues as SIA **Treasurer.]**

Directors

Charles Emmerich, Randolph Twp., N.J. Mechanical engineer, retired, part-time engineering consultant and farmer.

Paul J. McGinley, Ipswich, Mass. Vice-president, Anderson Notter Feingold, Inc., architects and preservation planners.

Matthew W. Roth, Portland, Conn. Director, HAER Conn. Inventory Project, Conn. Historical Commn.

[Standing Directors are **Jeffrey L. Brown**, Chattanooga, Tenn.; **Brent D. Glass**, Durham, N.C.; and **Larry D. Lankton**, Wash., D.C.]

Editors

(serving indefinite terms, at the Board's discretion)

IA — **Dianne Newell,** Vancouver, B.C. Asst. Prof. of History, Univ. of British Columbia.

Newsletter — **Carol Poh Miller,** Cleveland, O. Historic preservation consultant.

Editors Newell and Miller gave brief reports on the journal and newsletter respectively. Treas. Marlene Nicoll reported on the Society's fiscal health [see "Treasurer's Report" elsewhere in this issue]. Those attending the meeting unanimously agreed with Pres. Penn's motion that dues be raised (from $15 to $20 for an individual membership, $20 to $25 for couples, $10 to $12 for students) to cover rising costs of the Society's publications. This change takes effect Jan. 1, 1981. Matthew Roth reported on planning for next year's conference, and Brent Glass described his preparations for the SIA Fall Tour [see "SIA Affairs"].

The Sat. eve banquet was preceded by a walking tour of historic Fort Wayne. Shown here, the four-story stone barracks, designed by Montgomery C. Meigs.

The Sat. evening banquet was held at **Fort Wayne,** designed by Montgomery C. Meigs, then a young Lieutenant, and built in 1849 out of concern over the possibility of attack from Canada; as this never materialized, the fort was never armed. It was used as a troop training center during the Civil War. After 1880, it was greatly enlarged by the addition of dozens of buildings immediately west of the old earthworks, but the original installation remained completely intact. The four-story stone barracks is especially notable both as a rare Midwestern example of the Federal style and for its extensive and early use of cast-iron construction components. The City of Detroit currently is restoring portions of the complex for museum use.

Visitors were given a tour of the fort before dinner. While standing on the ramparts overlooking the Detroit River, several Great Lakes ore freighters passed by. The passing maritime parade included an unexpected treat, the **Bob-Lo boat *Ste. Claire.*** By explanation, Detroit is the only place in the country where one still may take a steamboat excursion to an amusement park. The park is located on a Canadian island called Bob-Lo (originally Bois Blanc). Boat service is provided by the *Columbia* and the *Ste. Clarie,* vessels built in 1902 and 1910, respectively, and designed by the noted Great Lakes naval architect Frank E. Kirby. Both retain their original triple-expansion reciprocating steam engines, visible from the lower deck of the vessel.

Cocktails and dinner were served in the ballroom of the Fort's 1880s Headquarters Building. The buffet paid tribute to Detroit's large Polish community and included pierogi, kielbasa, and other ethnic delicacies. After dinner, the group was treated to a humorous slide-lecture on the sociological and erotic aspects of automotive history by a grease-haired Pat Malone, appropriately dressed in T-shirt-*cum*-cigarattes rolled in the sleeve.

THE SUNDAY TOURS

By Sunday, conferees had participated in visits and scholarly studies of Detroit's industries, but, except for some quick glimpses from the bus window, little had been seen of the city itself. The concluding day of the conference provided time to tie the whole package together with a wide-ranging tour of Detroit.

First point of interest, after a rapid bus trip, was the **Ford Highland Park Plant.** This facility was built after Henry Ford had

First stop on Sun.'s tour was the legendary Ford Highland Park plant, birthplace of the assembly line and the $5 day. This, the largest extant building, typifies the Kahn-designed factory.

acquired majority control of his company and had introduced the Model T (first produced at the earlier Piquette Avenue Plant). This was the Detroit area's largest industrial complex to date, and it continued to be enlarged through 1920 after designs by Albert Kahn. This great factory has long been famed for several reasons: it was here that the automobile as a mass-produced, mass-marketed phenomenon was first introduced; it contained the first assembly line; and it was the place where the "$5 day" was initiated. When the plant opened in 1909, the population of Highland Park jumped from 425 to 4,120.

Leaving the Highland Park Plant, we proceeded to Hamtramck, a small independent city completely enclosed within the City of Detroit. We passed the **World Headquarters of Chrysler Corp.** (originally a Maxwell manufacturing plant) and stopped at the **Chrysler Hamtramck Assembly Plant,** better known as **"Dodge Main."** At its peak, Dodge Main employed 40,000 workers. Many of these were Polish-born, and it was said that there were more Poles living in Hamtramck than in Warsaw. (Hamtramck, by the way, is not a Polish name. Col. John Francis Hamtramck was a Canadian-born soldier who became the first American military commander at Detroit following the Revolution.) Hamtramck's

The Sun. tour included a photo stop at Chrysler Corp.'s Dodge Main plant in Hamtramck, now abandoned. In the foreground, presumably, are the unsold Dodge automobiles that hastened the plant's closing.

Polish character is still visible in its shops, churches, and restaurants, although Dodge Main has declined in importance in recent years and finally closed this past January [see SIAN Jan. 80:1]. The factory itself is colossal. Comments like "It's a dinosaur, isn't it?" were heard when the bus rounded the corner and it was realized that what had seemed so large was only the short end of the quarter-mile long, four-story high assembly and powerhouse building.

From Dodge Main, we proceeded along Detroit's Grand Boulevard, conceived as a perimeter road in 1900 and now defining only the inner core of a vastly expanded city. The route took us through an area in which **Fisher Body Corp.** once had operated 45 plants within only a few blocks. Also visible was the great hulk of the **Wilson Body Co.,** which supplied Packard in its heyday. Our destination was the **Ford Piquette Avenue Plant,** startlingly small by comparison with the Highland Park complex, but the first real

factory that Henry Ford owned (he had been in business only two years when he built it) and the place where the Model T was conceived and first produced. Next to this early Ford plant is a large complex built in 1910 by the **Everett-Metzger-Flanders Co. (E-M-F),** and later occupied by the **Studebaker Automobile Co.** It was also used for a time by the little-known **Knute Rockne Motor Car Co.,** whose painted sign still is seen on the building. Across the street, on a thoroughly undistinguished building that may once have been a rooming house for plant workers, was another painted sign that fascinated several in the group. Its faded lettering advertised textile products, including "auto robes."

The Picquette Avenue plant was Ford's first. It was here that he conceived and built the first Model T car.

Our next destination was Detroit's "New Center," with a brief stop along the way to see the **Cadillac Motor Car Co.'s Amsterdam Street Plant.** (Designed in 1905 by Detroit architect George D. Mason, this was the first reinforced-concrete factory building in Detroit and was built concurrently with the much better-known Packard Building No. 10 by Albert Kahn, a former partner of Mason.) In 1919, General Motors broke ground in a thriving new neighborhood on the outskirts of Detroit for the construction of a headquarters building, to be known as the Durant Building. The building designed by Albert Kahn in the Italian Renaissance style was as masterful as it was colossal. Covering an entire city block, fifteen stories high, and with over a million sq. ft. of interior space, it was the second-largest office building in the world. By the time of its completion in 1922, William Durant had been ousted from the company and his name dropped from the building. The **General Motors Building** has since been a continuing source of pride to the corporation and is meticulously maintained with no hint of modernization in its gilded and frescoed corridors.

In 1928, a second unit was added to the New Center. Connected by an underground concourse to the General Motors Building is the 28-story **Fisher Building.** This golden tower is often called Detoit's largest art object. It was designed in a sedately modified Art Deco style by Albert Kahn, with sculptural and painted ornamentation by Corrado Parducci and Geza Maroti. A magnificent vaulted concourse runs through the building, which is lined with three stories of shops and galleries, finished in forty varieties of marble, and lit by great story-and-a-half chandeliers. The building contained a great movie palace (since converted to a legitimate theatre) and was equipped with, among many other features, the first indoor parking garage. Like the GM Building, it is lovingly maintained and its concourse is the site of exhibits, concerts, and other civic functions.

The neighborhood just north of the New Center grew with the automobile industry at a time when both enjoyed incredible prosperity. Much of the area is now undergoing restoration and rehabilitation in a major project sponsored by General Motors. At the **Boston-Edison Historic District,** we debarked for a brief walking tour. In these few blocks was one of early-20th-century Detroit's greatest concentrations of new wealth. We passed the home of Henry Ford during the Highland Park years; next door was the home of Horace Rackham, the last of Ford's original stockholders to sell his holdings to Ford. In the neighborhood are a great number of large houses, many built by the owners of minor companies that supplied the more famous larger ones, but there are a good number of big names, too, including several members of the Fisher family (Fisher Body Corp.).

The bus trip from Boston Boulevard to lunch in the Greektown area of central Detroit took us down Woodward Avenue, the main street of the city. The trip took us backwards through history, first past a magnificent series of churches built in the First World War era (including Metropolitan Methodist, once the largest Methodist church in the world). We then passed the Grand Boulevard and entered the Victorian city, proceeded past the Art Center, then past the Detroit Institute of Arts and its companion Detroit Public Library (the latter designed by Cass Gilbert, 1917). Another series of great churches, most in the Romanesque Revival style, marked the gateway to downtown Detroit, whose great theatres, stores, and office buildings proclaimed the pride and ambition of the burgeoning city of the 1920s. Greektown is an old German commercial district that became populated early in this century by immigrant Greeks. Now without permanent residents, it retains a Greek flavor in its numerous good restaurants.

Following lunch, there were optional tours through central Detroit's **riverfront warehouse district,** many of whose buildings are being adaptively reused as restaurants and bars, and through downtown Detroit. The downtown tour introduced visitors to the complex radial street plan of the early city and passed landmarks of several eras of Detroit's history. Across from the Monroe Avenue commercial district is the vast **J.L. Hudson Department Store,** long the second-largest but tallest department store in the world, with 26 floors (13 were selling floors). Incredibly, Hudson's is now an endangered building; its owners, along with the City of Detroit, seek to supplant it with a suburban-type shopping mall. Just

The elegant General Motors Building, designed by Albert Kahn and completed in 1922.

around the corner is **Cadillac Square**, once the traditional kick-off point for Democratic presidential candidates who began their campaigns with Labor Day addresses to the assembled masses of unionized auto workers in the square. **Renaissance Center,** the well-known conglomeration of hotel, offices, and shops, could not be missed, nor could Detroit's new **Hart Plaza,** with its Dodge Memorial Fountain designed by Isamu Noguchi, nor the new (old) **trolley line** with antique cars purchased from Lisbon operating through part of the downtown area. We stopped briefly in the spectacular Art Deco lobby of the **Guardian Building,** newly completed when its prime tenant, the Union Guardian Trust Co. became the first bank to close, signalling the start of the Great Depression. A quick walk brought us to the **Detroit Athletic Club,** an early Albert Kahn palazzo which has long been second home to the city's automobile magnates. This marked the end of the SIA's too-brief visit to Detroit.

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Thus concludes this summary of a superlative and stimulating weekend in the Motor City. Mass production, large-scale unionization, cheap personal transportation, the Great Depression, the energy crisis, suburbia, the world's largest corporation, urban blight, urban renaissance: so much, one

reflects, can be traced to this city for which adversity means only challenge and whose motto is "It shall rise from the ashes." For the Detroit-area members, it was a joy to host the SIA and to have the chance to show off just a little bit of this great, but all too secret, city of Detroit.

THE AFTERMATH

In the few weeks since the conclusion of the SIA conference, news has been fast-breaking relative to many of the sites we visited. First, both the Parke-Davis and Uniroyal plants are scheduled to close within the next few months; the Parke-Davis buildings will be reused, but no decision has been made about the monolithic Uniroyal factory [see SIAN Mar. 80:5]. Astonishingly, both Ford Motor Co. and General Motors announced that they would no longer offer public tours through their facilities; tours wiil be discontinued immediately. (The Rouge plant had offered tours since 1923, which only recently—June 1—had been highlighted in the *N.Y. Times* Travel Section.)

There was some good news, though. General Motors announced that it would build a new plant in Detroit, its first in the city since the 1940s, to consolidate the operations of the Cadillac Assembly Plant and its neighboring Fleetwood Engine Plant. Present plans call for retention of the older plants for other uses. The new factory will be located on a 500-acre site partly in Detroit and partly in Hamtramck, and will include the site of the Dodge Main Plant. GM has not yet announced whether or not that magnificent building will be retained.

NOTE: Copies of the superb guidebook prepared by Charles K. Hyde for this year's conference (*Detroit: An Industrial History Guide*, published by the Detroit Historical Society, 60+ pp., profusely illustrated) are available from SIA hdqtrs. for $6., as is the attractive conference poster, for $4. Send checks payable to SIA to Rm. 5020, Natl. Museum of History & Technology, Smithsonian Institution, Wash., D.C. 20560.

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TREASURER'S REPORT

The Society finished the year 1979 with a fund balance of $8,362, a $5,077 increase over the balance at the close of 1978. Principal source of revenue was membership, which showed a $1,000 increase over 1978. The Society realized $676 from publication sales and $214 from contributions, including $107 as a share in the royalties of Robert Schuyler's book. (A $250 contribution from the Southern New England Chapter's Rhode Island Tour was received in 1980.)

The Society's principal expenses were the journal and the newsletter, $6750 and $5780 respectively. The annual conference showed a small profit. Other expenses were primarily administrative.

A number of people have been immensely helpful in maintaining the Society's financial records. I would like to thank Robert Vogel, David Shayt, and Paul Smith, who handle the records in Washington; Nan Sumner, who has managed the film "Working Places"; and Walter McKeever of Walter McKeever Associates, Greenwich, Conn. *Marlene Nicoll, Treasurer*

The Society For Industrial Archeology
STATEMENT OF REVENUE, EXPENSES, AND FUND BALANCE
For the Year Ended Dec. 31, 1979[1]

Revenue Collected		
Conferences		$ 1,388
Grant - Bellows Falls Arch Bridge Project[2]		2,000
Interest		210
Memberships		17,737
Publications		676
Royalties		140
"Working Places" sales and rentals		239
Contributions		214
Total Revenue		22,604
Expenses		
Accounting	$ 500	
Bellows Falls Arch Bridge Project	250	
Board of Directors travel and expenses	1,537	
Conferences	1,334	
Gifts and donations	73	
Insurance and legal expenses	194	
Journal	6,750	
Membership drive	108	
Miscellaneous	83	
Newsletter	5,782	
Office and administrative expenses	416	
Printing	221	
Postage	259	
"Working Places"	20	
Total Expenses		17,527
Excess Revenue Collected Over Expenses Paid		5,077
Fund Balance, January 1, 1979		3,285
Fund Balance, December 31, 1979		$ 8,362
Fund Balance Comprised:		
Cash		$ 13,674
Advances		500
Prepaid expenses		797
Accounts payable		(6,609)
Total		$ 8,362

[1]. Assets, liabilities, revenue, and expenses are recognized on a modified basis of cash and accrual accounting. Assets and revenues are recognized as received, whereas liabilities and expenses are recognized as incurred.
[2] Bellows Falls Arch Bridge Project — A $4,000 grant ($2,000 in 1978 and another $2,000 in 1979) was received to underwrite this project, whereas the majority of the costs were incurred in 1978.

Conference Addendum: Flint Faience Tiles

On his return trip from Detroit, Gerald T. Bloomfield noted the following site in Flint, Mich.:

A small plaque and some decorative work on the northwest wall of the AC Spark Plug Divn. plant in Flint are probably the sole remains of the production facilities of Flint Faience Tiles. Architectural tile making in the 1920s was one of the smaller non-automobile activities of General Motors. Other diversified products of the period included aircraft, radios, refrigerators, and early diesel railroad motive power.

The Flint Faience and Tile Co. was launched as an AC subsidiary with a plant adjacent to the AC factory on the Dort Highway on the east side of the city. The common link between the two enterprises was ceramics, since the bulk of the spark plug unit consisted of a ceramic insulator. According to a paper by McDougal in the *American Ceramic Society Bulletin* (Vol. 28, No. 11, 1949), tile making began in 1925 as a result of a brief meeting in Flint of Carl Bergmans, a Belgian ceramic artist, and Albert Champion, the French-born founder of AC spark plugs. The casual manner in which the new business activity was established was somewhat similar to the origins of the AC company itself, which was induced to locate in Flint by the energetic promotion of William Crapo Durant. The Champion Ignition Co. (later AC Spark Plug Co.) was one of the early constituents of General Motors.

The tile body was made from a plastic clay shipped from near

Gerald T. Bloomfield photograph.

Zanesville, O., together with grog crushed from spent refactories of the spark plug manufacture. Tiles from Flint were installed in the showrooms and cafeteria of the General Motors Building in Detroit. The swimming pools of the United States Lines vessels *Manhattan* and *Washington* were lined with the Flint products. Although tile-making became a profitable business, it always was a sideline of the dominant automotive components production of AC. When demand for manufacturing space increased, the tile operation was discontinued, in Nov. 1933, so that the factory could be incorporated into the production facilities of AC Spark Plug.

CHESSIE PLANS STEAM-POWERED EXCURSIONS

Chessie System Railroads will operate a series of steam-powered passenger excursion train trips this fall as a major effort to combat the growing problem of rail-highway grade crossing accidents. "Chessie's Safety Express" will take passengers on 20 trips through Md., Pa., Va., W. Va., Ky., and O. Sept. 13-Nov. 2. The train's message will be portrayed in displays promoting "Operation Lifesaver." The train will be powered by former C&O Ry. 4-8-4 passenger locomotive No. 614, built in 1948. The 614 was retired in the mid-1950s to Chessie's B&O RR Museum in Baltimore. Last year, railfan Ross E. Rowland, Jr. bought the engine and moved it to Chessie's Western Maryland Ry. roundhouse in Hagerstown for extensive rebuilding.

The 19-car, 750-passenger-capacity train will include both open-windowed and closed, air-conditioned coaches, parlor and observation cars, and a special "safety center" to house Chessie's "Operation Lifesaver" displays. During 1979, 755 grade crossing accidents occurred on Chessie System RRs; there were more than 12,000 accidents nationally. "These shocking statistics are exactly why we're running this train," according to Wm. F. Howes, Jr., Chessie v.p. for casualty-prevention.

Here is the train schedule:

Sat. Sept. 13 — Baltimore — Harpers Ferry — Martinsburg (Via Old Main Line) Round Trip
Sun. Sept. 14 — Baltimore — Harpers Ferry — Martinsburg (via Silver Springs) Round Trip
Fri. Sept. 19 — Baltimore to Cumberland — One Way
Sat. Sept. 20 — Cumberland to Terra Alta — Round Trip
Sun. Sept. 21 — Cumberland to Pittsburgh — One Way
Sat. Sept. 27 — Pittsburgh to Rockwood — Round Trip
Sun. Sept. 28 — Pittsburgh to New Martinsville — Round Trip
Mon. Sept. 29 — Pittsburgh to Brunswick — One Way
Tues. Sept. 30 — Brunswick to Richmond — One Way
Sun. Oct. 5 — Richmond to Balcony Falls — Round Trip
Sat. Oct. 11 — Richmond to Balcony Falls — Round Trip
Sun. Oct. 12 — Richmond to Clifton Forge — One Way
Mon. Oct. 13 (Columbus Day) — Clifton Forge to Huntington — One Way
Sat. Oct. 18 — Huntington to Hinton — Round Trip
Sun. Oct. 19 — Huntington to Hinton — Round Trip
Sat. Oct. 25 — Huntington to Hinton — Round Trip
Sun. Oct. 26 — Huntington to Hinton — Round Trip
Mon. Oct. 27 — Huntington to Cincinnati — One Way
Sat. Nov. 1 — Cincinnati to Ashland — Round Trip
Sun. Nov. 2 — Cincinnati to Ashland — Round Trip

Ticket information is available from: Chessie System, Box CJ, 2 N. Charles St., Baltimore, Md. 21201.

NEW CHIEF AT NAER

In April, Robert J. Kapsch joined the Interior Dept.'s Heritage Conservation & Recreation Service as Chief of the National Architectural and Engineering Record (NAER). Kapsch formerly was with the Dept. of Housing and Urban Development, where he served as manager of the HUD Rehabilitation Guidelines Research Program, aimed at changing the several thousand building codes in the U.S. to reduce the adverse impact they have on rehabilitation projects. Kapsch has served as staff professional on rehabilitation to Sen. William Proxmire on the Senate Subcommittee on Housing and Urban Affairs. Prior to this, he served for seven years in several management capacities at the Center for Building Technology of the National Bureau of Standards.

Kapsch holds a B.S. in Civil Engineering from Rutgers Univ., an M.S. in Management of Research and Development from George Washington Univ., and an M.A. in Historic Preservation, also from George Washington. He is presently completing the requirements for a Ph.D. in Engineering and Architecture (Architectural History) from Catholic Univ. He has written numerous reports and articles on building planning and design, building codes and preservation, and related subjects. Kapsch, an SIA member, attended the annual conference in Detroit, where he spoke briefly on NAER and expressed his hope that NAER will continue to have a close working relationship with the SIA.

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HCRS CULTURAL PROGRAMS TO REGIONALIZE

Effective Oct. 1, 1980, the Cultural Programs of the Department of the Interior's Heritage Conservation and Recreation Service (HCRS), including the HAER and HABS (now NAER) documentation programs, will be regionalized to seven offices. The new regional offices of HCRS are:

Region 1: Northwest, Rm. 990, 915 Second Ave., Seattle, Wash. 98174 (206-442-4706) — services states of Idaho, Oregon, Washington

Region 2: Pacific Southwest, 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-0182) — services states of Arizona, California, Nevada

Region 3: Mid-Continent, Denver Federal Center, P.O. Box 25387, Denver, Colo. 80225 (303-234-6462) — services states of Colorado, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota, Utah, Wyoming.

Region 4: Lake Central, Federal Bldg., Ann Arbor, Mich. 48107 (313-668-2023) — services states of Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Region 5: Southeast, Richard B. Russell Federal Bldg., 75 Spring St., Atlanta, Ga. 30303 (404-221-3445) — services states of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Puerto Rico, Virgin Islands

Region 6. Northeast, William J. Green Federal Bldg., 600 Arch St., Philadelphia, Pa. 19106 (215-597-7989) — services states of Connecticut, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia

Region 7: South Central, 5000 Marble, NE, Rm. 211, Albuquerque, N.M. 87110 (505-766-3515) — services states of Arkansas, Louisiana, New Mexico, Oklahoma, Texas

In addition, the state of Alaska will be served by an Area Office located at 1011 E. Tudor, Suite 297, Anchorage 99503 (907-277-1666).

Because the recording and documentation of historic industrial and engineering sites and structures is of vital concern to the SIA, SIAN plans to request a statement from each Assistant Regional Director (in charge of cultural programs) on their plans for implementation of the HAER component of NAER. Their responses will be reported in a future issue. Ed.

MISC. NOTES

NEW YORK CITY will be the site of this year's annual meeting of the National Trust for Historic Preservation, to be held Oct. 8-12. Theme is "Preservation Builds the Nation: An Ethic in the Eighties." Tours will include several of IA interest, including one titled "Engineering Preserved: The Heritage That Makes the City Work," which will focus on N.Y.C.'s transit facilities, its waterfront, and nearby Paterson, N.J. Seminars will focus on urban archeology and maritime preservation, among other topics. Information: NTHP, 1785 Massachusetts Ave., N.W., Wash., D.C. 20036.

"THE WAY WE WORKED: Baltimore's People, Port and Industries" is the title of a major new exhibit prepared by the Baltimore Industrial Museum. The exhibit includes photographs, machines, tools, products, and other artifacts. Located on the mezzanine level of the city's Convention Center, 1 W. Pratt St., it is open daily free of charge through 1980. Phone the museum office, (301) 396-1936, for exact hours and group tour information.

IRON-MEN ALBUM and **GAS ENGINE MAGAZINE** seek articles on rural technology. Details: Gerald S. Lestz, Editor-Publisher, Stemgas Publishing Co., Box 328, Lancaster, Pa. 17604.

COLLECTOR seeks the following SIA publns. (original editions only): original issue (blue copy), SIA *Newsletter;* Vol. 1, No. 1 SIAN; guide book, Walking Tour of Paterson, N.J. (Apr. 73); any publns. from 1973 Fall Tour (Bethlehem, Pa.) & 1974 Fall Tour (Rideau Canal); tour guide for Troy, N.Y., conference; 1976 Fall Tour book, "Guide to the Passaic Valley." Contact: David M. Sherman, 4815 Reservoir Rd., N.W., Wash., D.C. 20007.

THE REGIONAL ECONOMIC HISTORY RESEARCH CENTER of the Eleutherian Mills-Hagley Foundation has announced the continuation of its interdisciplinary research program in the economic history of the Mid-Atlantic states, 1750-1850. The project focuses on the transition form the rural, agrarian, settlement era to the early phase of an industrial, urban society, paying particular attention to the social context and consequences of that transition. The Center invites the participation of economic, social, and intellectual historians, as well as historians of science and technology, agriculture, labor, and others. Researchers will be in residence at the Eleutherian Mills Historical Library. Stipends are awarded by the Center's Academic Advisory Board in the spring and fall of each year. Additional information: Glenn Porter, Director, REHRC, Eleutherian Mills-Hagley Foundation, Greenville, Wilmington, Del. 19807.

HAGLEY GRADUATE PROGRAM. Applications are now being accepted for the 1981-82 program of graduate study for students interested in American business and economic history, history of technology, and related museum studies. Program is jointly sponsored by the Eleutherian Mills-Hagley Foundation and the Univ. of Delaware History Dept. Financial aid is available. Deadline for the '81-'82 academic year is Feb. 7. Information: Coordinator, Hagley Graduate Program, EM-HF, P.O. Box 3630, Greenville, Wilmington, Del. 19807.

A MARINE RESTORATION TRAINING COURSE will be held Sept. 29-Oct. 1 in conjunction with the APT annual meeting in Quebec City. The course, focusing on the preservation of vintage wooden boats, will be coordinated by Alex Barbour, Senior Engineer, Machines & Vessels, Parks Canada. Training will include surveying and as-found records; problems associated with wooden boats; masts, spars, and hulls; preservative treatments; and interior joinery and surface finishes. Information and registration forms: APT-1980 Training Courses, Box 2487, Station D, Ottawa, Ontario K1P 5W6 Canada.

THE WESTERN COMPANY MUSEUM, in Fort Worth, Tex., opened last year. According to Francis J. Munch, director, the museum presents the history of the petroleum industry within the contexts of American history and geological time. The museum, located at 6100 Western Pl., is open Mon. through Fri., from 8-5.

STEAMBOAT 1981, a calendar of historic steamboat photographs edited by Allen Hess, is available for $5. from Mr. Hess, 19 University Pl., Apt. 2, Princeton, N.J. 08540.

COUNCIL FOR NORTHEAST HISTORICAL ARCHAEOLOGY 1980 Conference will be held in Albany, N.Y., Oct. 17-19, at the Best Western Inn Towne, 300 Broadway. Papers will cover the entire Northeast and all time periods. Information: Robert L. Schuyler [SIA], Chairman, CNEHA, University Museum, 33rd & Spruce sts., Philadelphia, Pa. 19104, (215) 243-6965.

"INDUSTRIALIZATION AND THE FOREST OF THE NORTHEAST: An Industrial Archeological Perspective" is the title of a symposium to be held on Sat., Oct. 11, at the Roberson Center for the Arts and Sciences in Binghamton, N.Y. Presentations by eight scholars and researchers representing a variety of perspectives in industrial archeology, cultural geography, and social history will be given during morning and afternoon sessions. Papers have been coordinated by Edward S. Rutsch [SIA], and the symposium is co-sponsored by the SIA. Keynote speaker following a dinner on Sat. evening will be Brooke Hindle [SIA], Senior Historian at the Natl. Museum of History and Technology, Smithsonian Institution, who will talk on "New Continuities in Wood Technology." Other events planned for the weekend include a look at recent industrial archeology films on Fri. evening, Oct. 10, and a trip to the Old Mill Museum, East Meredith, N.Y., on Sun., Oct. 12. Of special interest to those attending the symposium will be a new exhibition, "Forest to Factory: The Woodworking Industries of Nineteenth Century New York," which opens Sept. 28 in the Roberson Mansion Galleries. Also on display at the Roberson Center, through Oct. 26, is a new exhibition of photographs titled "Working Lives: Broome County, New York, 1800-1930." There will be no registration fee for the symposium, but a block of rooms will be reserved at a nearby hotel. For further information, contact Larry Bothwell, Director of Special Projects, History Dept., Roberson Center for the Arts and Sciences, 30 Front St., Binghamton, N.Y. 13905, (607) 772-0660.

POSITIONS AVAILABLE

The Tennessee Valley Authority has openings for the following positions: historian/office administrator, historic archeologist, prehistoric archeologist. Positions deal with federal agency compliance and the survey of TVA's extensive holdings throughout seven-state region. M.A. required. Resume to Maxwell D. Ramsey, Manager, Cultural Resources Program, Divn. of Land and Forest Resources, TVA, Norris, Tenn. 37828.

Director is sought for small industrial museum (water- and steam-powered mill with machinery) near Cooperstown, N.Y. Two years' experience or M.A. in Museum Studies, American Studies, Architectural History, or related field required. Strong administrative and fund-raising skills; familiarity with history of technology and machine and building restoration. Salary range, $12,000-$15,000. Send resume to Search Committee, Hanford Mills Museum, East Meredith, N.Y. 13757.

Immediate opening for industrial or historical archeologist. One-year, full-time position involves half-time teaching, half-time contract archeology. Salary negotiable. Resume to Dr. Edward E. Cahill, Head, Dept. of Sociology & Anthropology, U. of Tenn. at Chattanooga, 37402, (615) 755-4411.

Architectural historian with strong interest in railroading sought for one-year intensive survey of 115 stations in N.J. beginning early fall. Must be able to discern alterations, write clear descriptions, perform historical research. Work will culminate in National Register nomination(s). Salary negotiable. Call or send resume and writing sample to: Constance M. Greiff or Charles H. Ashton, Heritage Studies, RD 4 Box 864, Mapleton Rd., Princeton, N.J. 08540. (609) 452-1754.

Assoc. curator is sought for the Howard Dittrick Museum of Historical Medicine, Cleveland, O. Requires background in the history of science, technology, or medicine, with Ph.D. desirable. Responsible for processing, care, use, and exhibition of collections and for education program. Must be willing to assist with variety of operational tasks necessary in small museum, should be able to do research and teach in history of medical technology and supervise student practica in museum studies. Resume and references to: Chief Curator, Howard Dittrick Museum, 11000 Euclid Ave., Cleveland 44106.

RESEARCH QUERIES

For an M.A. thesis in architectural history, information is sought on lighthouses as a building type with emphasis on building technology and, secondarily, architecture motifs. Nora Pat Small, 1100 L St., Wash., D.C. 20240, (202) 523-5444.

A water wheel or turbine, called a "Blake Wheel," was at one time installed on the Neuse River near Hillsborough, N.C., for powering papermaking machinery. Information on the wheel or its builder is sought by Charles H. Blake, Box 10, Hillsborough 27278.

Information on the Grueby Faience Co. of Boston, particularly designs and designers in Grueby's architectural faience dept. c. 1902-05, is sought by Philip Copp, 17 Oakland Rd., Maplewood, N.J. 07040.

The Detroit (Mich.) Dry Dock Engine Works Machine Shop, built by the Berlin Iron Bridge Co. of East Berlin, Conn. in 1892, has an exposed steel frame. Information is sought on other, earlier steel-framed structures designed for industrial use. Deborah Goldstein, Historic Designation Advisory Board, City of Detroit, 1320 City County Bldg., Detroit, Mich. 48226.

For an exhibit on the history of electric power development and use in Charlotte, N.C., information is sought on Ball steam engines and the Ball Engine Co. generally. R. W. Bostian, Duke Power Co., Steam Production Dept., 422 S. Church St., Charlotte 28242.

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SIA AFFAIRS

FALL TOUR—NORTH CAROLINA

SIA 1980 Fall Tour will be held in North Carolina Sept. 26-28. Tour headquarters will be Winston-Salem. Highlights will include the North Carolina Granite Corp. in Mt. Airy, largest open-face granite quarry in the world; Southern Railway Shops [HAER] in Spencer, site of a developing state-owned transportation history museum [SIAN May 80: 1-2]; R.J. Reynolds Tobacco Co. complex in Winston-Salem; and much, much more. Evening programs will feature lectures and films on industrial archeology in N.C., and a Sat. night reception and banquet (Southern-style) is planned at Brookstown Mill, a textile mill recently converted to offices and stores. Old Salem, Inc., has made special arrangements for visitors to see craft exhibits and demonstrations at the restored Moravian village located near the conference center. Tour will be limited to the first 140 registrants. Details on room reservations and registration will be mailed in August. *B.G.*

1981 ANNUAL CONFERENCE — Hartford, Conn. — May 7-10. Mark your calendar *now.*

NOTICE FROM HQTRS: One of you reading this will not have received your May 1980 issue of the *Newsletter.* We do not know who you are because, returned by the U.S. Postal Service, neatly encapsulated in a plastic baggie, was the partially shredded newsletter, with most of the left half of its envelope. Contained thereon was enough of *our* address to send the invalid back home, but not a jot of *your* address. Let us know who you are and we will restore your property.

NEWS OF MEMBERS

MARGOT GAYLE, Chairman of the Friends of Cast Iron Architecture, has received an award from the N.Y.C. Landmarks Preservation Commn., on the occasion of its 15th anniversary, for her years of effort to protect the city's landmarks.

DIANNE NEWELL, Editor of *IA*, will be teaching Canadian history at the Univ. of British Columbia beginning in Sept. Journal correspondence and manuscripts should be sent to Ms. Newell, Asst. Prof. of History, U.B.C., Vancouver, B.C. V6T 1W5. (604) 228-6477.

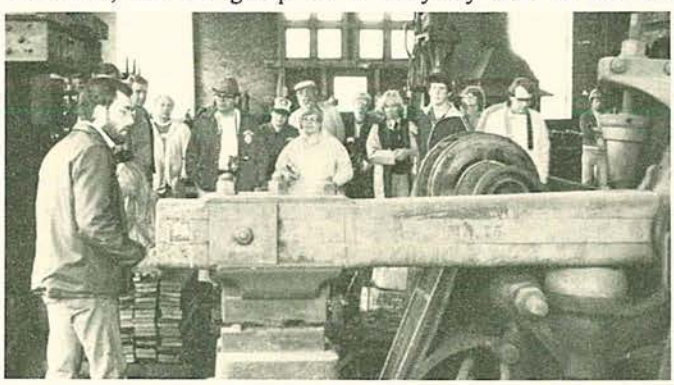
CHAPTER NEWS

LATROBE CHAPTER. At the annual business meeting, held Feb. 23 at the Baltimore Industrial Museum, Pres. Mark Edwards briefly reviewed the chapter activities during the past year and a half. These have included tours of the Wiessner (American) Brewery [HAER], Pratt St. Power House, and Eastern Ave. Pumping Station in Baltimore, truss bridges in Frederick Co., Md., and an informal social meeting at which the film "Last of the Tough Welshmen" was shown. Following this review, John Pearce, of George Washington Univ., gave a slide talk on the Amelung Glass Works of Frederick Co. Dennis Zembala, of the Baltimore Industrial Museum, presented a film made by HAER on the Seneca Glass Works.

Officers for 1980 were elected, as follows: Mark Edwards, pres.; Charles Kluth, vice pres.; Robert Casey, treas.; Phillip Lord, recording secy.; and Randolph Chalfant, corresponding secy. An amendment to the Latrobe Chapter constitution, allowing two classes of membership (individual: $4. annual dues; family: $6.). was read and passed. After the meeting adjourned, Roger White led a small group on a tour of Baltimore City Hall's spectacular cast-iron dome (1871), renovated in 1976.

Other events this year have included a tour of selected IA sites in the Fells Point area of Baltimore, including the Brown's Wharf Museum and the B&O Coffee Warehouse, and a walking and auto tour of Industrial Canton [NR] led by Dennis Zembala. This 5,000-structure historic district was one of the earliest shipping and manufacturing centers in Baltimore.

MONTGOMERY C. MEIGS ORIGINAL CHAPTER. Under the patronage of the Smithsonian Associates Program, a small contingent of MCMOC members boarded the 10 A.M. Amtrak train out of Washington on Apr. 26 to inspect the B&O's principal maintenance of way repair shops [HAER] at Martinsburg, W. Va. John Hankey [SIA], Historian at the B&O Railroad Museum in Baltimore, led the group on a rainy-day tour of the two



John Hankey introduces MCMOC members to the fundamentals of trip hammer operation, B&O Blacksmith Shop, Martinsburg, W. Va. *David H. Shayt photographs.*

roundhouses (1866 and 1872, adapted respectively for car weighing and track reclamation); the frog shop, set up to produce, *en masse,* switch points and frogs; and the bridge shop, capable of turning out any and all steel components for B&O's standing spans. Special attention was paid to the 1906 Chicago Pneumatic Co. twin-cylinder compressor, still providing the facility with air for a vast array of stationary and portable pneumatic machine tools, although most regretfully silent during the visit.

Scrutinizing frog and switch points outside the B&O's 1866 roundhouse.

Conspicuous was the lack of any major structural alteration to the shops, most of which date from 1866. Except for some cosmetic modernization, a new roof truss, and a missing turntable, both roundhouses retain their original cast-iron and timber framing with exterior brickwork. Coupled with the moody, lowering skies outside, the dripping of the shops' downspouts and eaves, and the faint aromatic mixture of grease, old masonry, timber, and dirt, the scene carried the day's visitors most vividly back into the last century. *D.H.S.*

SIA-NC. The North Carolina Chapter was formally organized on May 17 at a meeting and tour held in Eden, N.C. Dr. Lindley Butler, historian-in-residence at Rockingham Community College, led a group of 25 on a tour of Eden's Spray Textile District. Highlights included the Mercantile Building (c. 1890), a reconverted hydroelectric power station (c. 1910), the dam and power canal, and the remains of the Leaksville Factory complex (1840-1910). Following the tour, the Rockingham Historical Society served a buffet lunch. During a short business meeting the group ratified the chapter by-laws and approved nominal dues for individuals ($2.), couples ($3.), and students ($1.). Dave Parham was elected chapter pres. and Mac Whatley sec.-treas. Chapter member Brent Glass will handle all planning for the SIA annual Fall Tour, to be held in Winston-Salem Sept. 26-28. Those interested in joining SIA-NC should contact Mac Whatley, 306½ Macauley St., Chapel Hill, N.C. 27514. *B.G.*

PUBLICATIONS OF INTEREST

Compiled by Robert M. Frame III, Minnesota Historical Society, and Robert M. Vogel, Smithsonian Institution

David P. Billington, **Robert Maillart's Bridges.** Princeton: Princeton U. Press, 1979. 117 illus. $17.50. Analysis of Maillart's concrete bridges as a link between engineering and art. (Review by Carl Condit [SIA] in *Technology & Culture,* Spring 1980.)

James Burke, **Connections.** Boston: Little, Brown & Co., 1979. $17.95.

John L. Cotter [SIA], **Archaeologists of the Future: High Schools Discover Archaeology.** In *Archaeology,* Jan./Feb. 1979, pp. 29-35. Students excavate IA near Philadelphia.

Brian J. Cudahy, **Rails Under the Mighty Hudson.** Brattleboro, Vt.: Stephen Greene Press (P.O. Box 1000, 05301). 1975. 78 pp., 51 photos, maps. $6.95.

Julia Elton, **Technology and the Trust.** In *National Trust* (42 Queen Anne's Gate, London SW1H 9AS), Autumn 1978, pp. 10-11. Industrial & engineering historic preservation.

A. R. Griffin, **The British Coalmining Industry: Retrospect & Prospect.** Buxton, England: Moorland Publ. Co., 1977. 224 pp., £6. Rev.: *Bus. Hist. Rev.,* Spring 1979.

Charles Harris, **In Louisiana, There is Still Steam in the Sugar Mills.** In *Live Steam,* Oct. 1979, pp. 34+.

James Hearst, **Farm Life When the Power Changed.** In *Palimpsest* (Iowa State Hist. Soc.), Sept./Oct. 1979, pp. 156-61. Rural electrification in Iowa.

Jack Hunter & John Vacha, **The Interurban: Was It On The Right Track After All?** In *Western Reserve Historical Society News,* Jan./Feb. 1980, pp. 4-9.

Charles S. Jackson, **The Singack and Mead's Basin Brickyards in Wayne Township** [N.J.]. Wayne Township Hist. Commn. (Van Riper-Hopper House Museum, 533 Berdan Ave., Wayne, N.J. 07470), 1978., 58 pp., illus., paper. $3.

John F. Kasson, **Civilizing the Machine: Technology and Republican Values in America 1776-1900.** N.Y.: Grossman Publishers, 1976. 274 pp. $15.00. Rev.: *Business Hist. Rev.,* Autumn 1979.

Maury Klein, **In Search of Jay Gould.** In *Business History Rev.,* Summer 1978.

Louis H. Klotz, **Water Power: Its Promises & Problems.** Center for Industrial & Institutional Development (Univ. of New Hampshire, Durham 03824), Oct. 1979. 83+ pp., illus. $2.50. Traces water power development 200 B.C. to 1979. Other titles in series (same price): Coal, Gas, Nuclear, Oil, Solar, Tidal, Wind, and Wood Power.

David McCullough [SIA], **The Path Between the Seas: The Creation of the Panama Canal 1870-1914.** N.Y.: Simon & Schuster, paper edn. $6.95.

Francisco Mujica, **History of the Skyscraper.** Paris, 1929; N.Y., 1930; reprint, Da Capo Press, N.Y., 1977. 72 pp., 134 plates,. $75. "Pictures, plans, and perspectives of nearly every tall building built from 1880 to the 1930s."

Charles M. Noble, **Highway History: Modern Turnpike Era Recounted.** In *Civil Engineering* (ASCE), Feb. 1979, pp. 73-76. Considers design of curves, interchanges, toll-collection systems, telephone and radio systems, signage, etc.

Thomas Probert, **Lost Mines & Buried Treasures of the West: Bibliography & Place Names—From Kans. west to Calif., Oreg., Wash., & Mexico.** Berkeley: U. of Calif. Press. 1977. 593 pp. $27.50. By state, names of mines and other mineral workings, giving location and references.

Alfred Pugsley (Ed.), **The Works of Isambard Kingdom Brunel: An Engineering Appreciation.** Forest Grove, Oreg.: International Scholarly Book Services, 1976. 222 pp., $19.50. Rev.: *Bus. Hist. Rev.,* Winter 1978.

Leland M. Roth, **Three Industrial Towns by McKim, Mead & White.** In *J. of the Society of Architectural Historians,* Dec. 1979, pp. 317-47. Generating station and workers' housing at Niagara Falls; mills and housing at Roanoke Rapids, N.C., and Naugatuck, Conn.—all late-19th c.

E. C. Ruddock, **Arch Bridges and Their Builders, 1735-1835.** N.Y.: Cambridge U. Press, 1979. 256 pp., 195 photos, illus., tables. $67.50. A truly definitive work.

Darwin H. Stapleton [SIA], **The Origin of American Railroad Technology, 1825-1840.** In *Railroad History,* Autumn 1978, pp. 65-77. American civil engineers in Britain; includes tables of visitors to Britain and RR mileage attributable to them.

John H. Stephens, **Towers, Bridges, & Other Structures.** (One of the Guiness Family of Books.) N.Y.: Sterling Publ. Co., 1976. 288 pp., heavily illus. By no means a gee-whizzer; a splendid, serious, knowledgable, informative compilation, with full historical data, on the great structures of all types, of all time, in all places. Yes, it will resolve bets, but it's hundreds of times more valuable than just that.

Sigvard Strandh, **The History of the Machine,** N.Y.: A&W Publs., 1979. 240 pp., heavily illus. $35. Excellent illus. historical account of machines of all types, then to now.

Alan Trachtenberg, **Machines Come to America.** A review of Dunwell, *The Run of the Mill*; Hareven & Langenbach, *Amoskeag*; and Wallace, *Rockdale.* In *The New York Times Book Review,* Jan. 21, 1979, pp. 1+.

Reynolds M. Wik, **Benjamin Holt & The Invention of the Track-Type Tractor.** In *Technology & Culture,* Jan. 1979, pp. 90-107. Definitive look at the origins of a vital but obscure invention.

William Zuk, Howard Newlon, Jr. [SIA], Wallace T. McKeel, Jr., **Methods of Modifying HIstoric Bridges for Contemporary Use.** Charlottesville: Va. Highway & Transportation Research Council, June 1980. 105 pp. Case studies of 29 bridges that have been or are to be modified for park use, architectural use, exhibition, &c. Excellent study.

Lewis W. Hine, **Child Labor Photographs.** Catalog No. 8, Lunn Gallery Graphics International Ltd. (3243 P St., N.W., Wash., D.C. 20007). 30 pp.; illus. Catalog of exhibit of the always-moving Hine photos of children at work in various occupations, incl. textiles, mining, glass, packing, &c. Excellent graphic reproduction. $5.

The Next Station Will Be . . . An Album of Photographs of Railroad Depots in 1910. Vol. VI. Erie Main Line (New York-Port Jervis). Railroadians of America (270 W. Colfax Ave., Roselle Park, N.J. 07204). 1979. 52 pp. $4.50.

IA IN THE NATIONAL REGISTER

Compiled by Carol Dubie

National Register listings, Apr. 15-June 15, 1980:

ALABAMA. Water Tower, Florence. 1889 282,000-gal. steel tank on 70-ft. buttressed stone tower.

CALIFORNIA. Union Iron Works Turbine Machine Shop, Alameda. 1918 steel-frame industrial building. Associated with the active use of the shipyard in WW I & II; largest such building on the West Coast at the time of construction.

COLORADO. Hanging Flume, Uravan vic. Six miles of c. 1890 wooden flume anchored to canyon wall by iron pins; served Lone Tree Placer Mine. **Havemeyer-Willcox Pumphouse & Forebay,** Rifle. Concrete, machinery removed; remains of early efforts to bring water from the Colorado R. **Whiskey Creek Trestle,** Rangely. 1905 trestle constructed of 12-in.-diameter wood pilings. Used by Uintah narrow-gauge railroad to haul gilsonite from mines at Dragon, Utah, to Mach, Colo.

KENTUCKY. National Foundry & Machine Co., Louisville. 1895-1900s brick factory complex used to manufacture cast-iron pumps, fire hydrants, and valves.

LOUISIANA. Shreveport Water Works Co. Pump Station (proper name: McNeil St. Pump Station). Includes Worthington vertical triple-expansion steam pumping engines (1898 and 1911); Worthington triple-expansion duplex pumping engine (1900), still used to help maintain pressure in downtown mains; two Corliss-type pumping engines (1921); four 1908 filters; 1921 Heine gas-fired boilers. Assessed to be of national significance [1980 HAER recording project].

MAINE. Monhegan Island Lighthouse and Quarters. 1824 granite lighthouse, 47 ft. high, with wood-frame keeper's dwelling; one of the most important navigational aids on the coast.

MASSACHUSETTS. Berger Factory, Boston. 1912 vernacular brick factory building, home until 1976 of one of the first American firms (founded 1871) to build precision engineering and surveying instruments. Their products were used in the construction of the Panama Canal, Boulder Dam, and TVA projects.

MICHIGAN. Flint Brewing Co. 1896-1944 brick complex, used as regional brewery 1896-1915 and 1933-1953 and as Methodist church during prohibition. Prepared by Janet Kreger [SIA]. **Upper Peninsula Brewing Co. Building,** Marquette. 1893-94 Romanesque Revival sandstone office building. **Vermont House & Fenton Grain Elevator,** Fenton. 1865 wood frame elevator. Prepared by Janet Kreger [SIA].

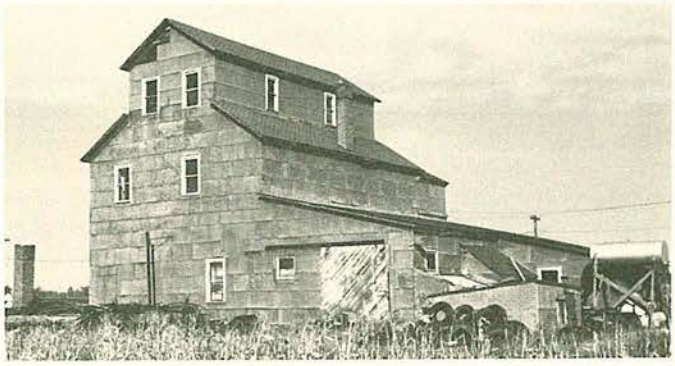
MISSISSIPPI. Cotton Row Historic District, Greenwood. 1890-1930 district of brick warehouse and commercial buildings associated with the rebirth of Miss. cotton industry after the Civil War; the largest cotton market in the state.

MONTANA. Polson Feed Mill. 1910 wood frame feed mill with original machinery; associated with the settlement and agricultural development of Flathead Co.

NEW JERSEY. Fort Hancock and the Sandy Hook Proving Ground Historic District. 1874-1919 Army ordnance proving ground; served as chief defense of New York Harbor from the Spanish-American War to the 1950s. A wide variety of innovative weaponry was tested here, including rifled cannon, breech loading guns, and machine guns.

NEW YORK. Double Span Whipple Bowstring Truss Bridge, Claverack. Two cast- and wrought-iron pony trusses with center pier of cut limestone blocks; "J.D. Hutchinson, Builder, Troy, N.Y., 1870" cast in top chord. **Interborough Rapid Transit Subway Control Houses Thematic Resources,** Bronx, King, & N.Y. cos. Four remaining ornamental entrances (1904-08) to IRT underground subway stations: 72nd St., Battery Park, Mott Ave., and Atlantic Ave. **Kingston-Port Ewen Suspension Bridge.** This 1921 structure was the final link in N.Y.'s first north-south auto highway. 153-ft. towers of riveted steel carry cables 1,145 ft. between anchorages. **Municipal Asphalt Plant,** New York. 1941 reinforced concrete parabolic arch "mixing" building. An exceptionally significant structure in the history of modern architecture in America.

NORTH CAROLINA. Clifton House & Mill Site, Royal. Includes 20-ft.-high stone dam, mill foundations, sluice pipe, water wheel, gears, and oak shaft. **Lake Mattamuskeet Pumping Station,** Swanquarter vic. 1913 station associated with large-scale engineering project to drain 12,000 acres of lake bottom for agricultural use; interior features removed in 1930s. **Tarboro Multiple Resource Area, Tarboro Historic District.** Town center includes tobacco warehouses and other industrial buildings. **Taylor's Mill,** Middlesex vic. Mid-19th c. gristmill with surviving turbine, some equipment; two intact mill dams, one stone and one timber.

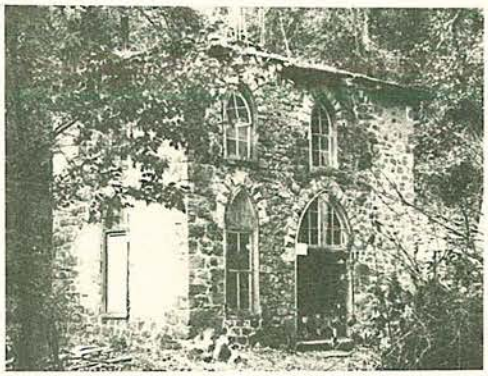


Carson Roller Mill. *State Historical Society of N.D. photograph by Kurt Schweigert.*

NORTH DAKOTA. Carson Roller Mill. 1913 flour mill, one of the few in state known to be unaltered. Original 1913-19 equipment includes line-shaft drive system, single cylinder Fairbanks-Morse oil engine.

OKLAHOMA. Morrison Suspension Bridge. 150-ft. wire-cable suspension bridge, c. 1917, based on design patented by Nelson Sturgis of Guthrie, Okla., in 1913.

PENNSYLVANIA. Joanna Furnace Complex, Morgantown. Site in use 1792-c. 1900, includes original furnace, sandstone blowing-engine house with Gothic detail, store/office building, large percentage of raceway and waterwheel structure; foundation walls of charcoal storage building, casting house, and blacksmith shop; remains of hydraulic elevator used to lift ore. **McGee's Mill Covered Bridge,** Mahaffey vic. 1873 Burr arch on west branch of Susquehanna R., last remaining covered bridge in Clearfield Co.



Ruins of Joanna Furnace Blowing-Engine House, main entrance. *W. Jacob photograph.*

TENNESSEE. East Tennessee Iron Manufacturing Co. Blast Furnace, Chattanooga. Antebellum blast furnace site, first in the South to use coke as fuel and to draw on the region's coal reserves in a significant way. [Jeffrey L. Brown presented a work-in-progress paper on this site at the 1979 SIA annual conference in Columbus, Ga.]

UTAH, Ute Mountain Fire Tower, Manila vic. 1937 CCC-constructed timber fire tower with 15 x 15-ft. observation deck; last remaining fire tower in the state.

VERMONT, Estey Organ Co. Factory, Brattleboro. 1870s complex of eleven clapboard and slate-sheathed factory buildings; this family organ buisness dominated the local economy and was one of the largest industries in the state. **Hoag Gristmill and Knight House Complex,** Starksboro vic. Fieldstone gristmill, c. 1800; machinery removed in 1940s, but a good example of substantial stone construction of the era.

Main buildings of Esty Organ Co. *Hugh H. Henry photograph.*

VIRGINIA. Crystal Spring Steam Pumping Station, Roanoke. One-story brick pump house with 1905 Corliss steam pump manufactured by Snow Steam Pump (later Worthington) Co. of Buffalo, N.Y. **Jones Point Lighthouse and District of Columbia South Cornerstone,** Alexandria. 1791 boundary stone marks the beginning point of the survey that created the District of Columbia; 1855 wood frame lighthouse illustrates federal concern for improvement of inland navigation in the 19th c.

WEST VIRGINIA. Reckart Mill, Cranesville vic. 2½-story wood frame mill, built 1865, with 20-ft. Fitz overshot waterwheel, four buhr mill stones, grain elevators, corn sheller, and chutes; flume, mill race, and dam also present.

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LETTERS

Editor: The book review by M. W. Browne reprinted in SIAN under the heading "Loose Connections" [Jan. 80:4] is somewhat unfair. The fundamental criticism of the reviewer was that both the book and the television series "Connections" by James Burke portrayed modern technology as the essentially undirected result of randomly occurring scientific discoveries. The reviewer expesses a preference for the view that technological advance is the result of the purposeful assembly of established scientific knowledge. Basically, Burke's thesis is that technology "just happens," whereas Browne's is that it is a planned result of fundamental scientific research.

My own view is that both elements are important factors, and that Burke's more unconventional views do not deserve the negative reception implied by the reprinting of a strongly negative review in SIAN. I offer the following observations to redress the balance.

It should be noted that the television program was not titled "Connections" but rather "Connections: An Alternative View of Change." Presumably, Burke therefore specifically intended to propose an alternative viewpoint.

Such being the case, it should not seem entirely unreasonable that the program's production team did not include formally trained scientists. An alternative view of technological change might well consider the impacts of politics, commerce, and many other factors, even to the exclusion of considering the impact of science. Scientific training is not a particularly appropriate preparation for political or commercial matters, and its lack need not disqualify the validity of an "alternative view."

The potential validity of Burke's thesis is inadvertently reinforced by at least one part of the review which purports to disprove it by emphasizing the connection between quantum physics, via transistors, to computers. The discovery of transistors, like so many technological advances, was somewhat accidental. Quantum physics provided the theoretical basis to explain transistor action in retrospect only. The reviewer's belief that transistors played a vital role in the invention of the electronic computer is similarly flawed. Programmable electromechanical computing machinery was used during World War II and was succeeded by vacuum tube devices prior to the invention of transistors. In short, Burke has ample justification for ignoring quantum physics in a discussion of computers.

The review contains several other questionable implications about cause-and-effect relationships, leaving the distinct impression that technological development exclusively follows theoretical and scientific advances. History shows that, to a great extent, the reverse is true, and that technology *does* "just happen" as a response to economic, political, social, and other non-scientific influences. *J. Carr, Waterloo, Ont.*

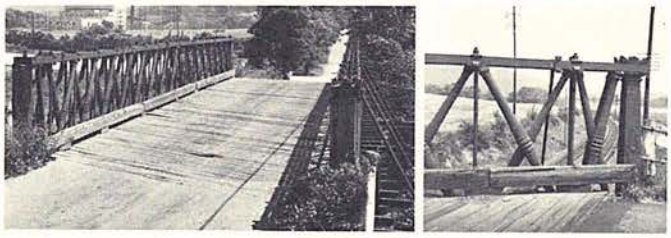
Mr. Carr, of Amicus Engineering Corp., currently is planning a technical museum to be housed in an abandoned generating station at Niagara Falls. The museum will have as its focus the relationship between motive power and the industrial revolution. "The non-technical factors that both caused and resulted from technological advances will receive prominent attention," he writes. Ed.

Editor: The recent article on the Reading-Halls Station Bridge [SIAN Mar. 80:2-3] mentioned a similar bridge that once stood near Reading, Pa.

The bridge to which the author refers stood south of Reading. Back in the 1950s and early 60s, it carried Pa. Rte. 83 over the Reading Co. tracks. Enclosed you will find a few photos that I took of this bridge and a copy of a newspaper article on the bridge that appeared in the *Reading Eagle* at about the time of its removal.... The bridge was removed in 1963 with the completion of the Reading by-pass interchange. At the time I took these photos, I also took some of the principle dimensions of this bridge:

Truss length, 68'-7"
Truss depth, 6'-10"
Top and bottom chords, 4 - 1¼" x 4" iron bars
Truss-to-truss centerline, 16'-6½"

I hope this will be of interest to your readers. *Edward M. Kutsch, Douglassville, Pa.*



Reading Co. cast-iron bridge near Reading, Pa., July 1962. *Edward M. Kutsch photographs.*

Editor: [Re the article "IA For Sale" in the May 1980 issue of SIAN:] The practice of selling bricks, stones, etc., from buildings or sites is not a new undertaking. Many "historical societies" have done this to raise money. In most cases, no documentation or recording of the structure was performed. As long as our "colleagues" support such activities, others will also. *Vincent C. D'Ambrosio, Dept. of Industrial Arts & Technology, S.U.N.Y. at Oswego.*

Editor: In light of the rising criticism of the new role of HAER and the resulting void that is being created [SIAN Nov. 79:2-3, Mar. 80:7], might I offer a suggestion? Perhaps it is time for us to "put our money where our mouth is." That is to say, is there any reason that the Society cannot assume some of the neglected recording functions of HAER? Individuals and chapters have shown great interest in short-term inventory projects. Perhaps now is the time to turn to more serious efforts in the preparation and perservation of measured drawings. I, for one, would be more than happy to contribute to a fund to enable recording of threatened structures and am sure that funds could be obtained from a variety of private and governmental sources. *Jonathan Black, King of Prussia, Pa.*

CONTRIBUTORS TO THIS ISSUE

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