

## Iron City IA



Landmark blast furnaces at U.S. Steel's former Duquesne Works (1889-1984), among the most significant sites in Steel Valley.

In view at *right*, the blast-air heating stoves are on the left and one of the furnaces is on the right. *R.M. Vogel photo.*

*Below:* Two additional views of the same complex, from the back and from the side. *E. Kutsch photos.*



Over 250 SIAers convened in Pittsburgh for the first time since 1974, in anticipation of a weekend filled with images and interpretations of the Iron City's industrial landscape. Headquarters was the opulent **Westin William Penn**, built as a world-class hotel in 1916 by coke magnate Henry Clay Frick. While guests arrived on Thursday, June 3, the Penn. Historical & Museum Commission hosted a day-long workshop on the identification and interpretation of industrial-heritage areas. The evening reception was held simultaneously with the opening of a major exhibit—"The Artist Looks at Industrial Pittsburgh"—at the Univ. of Pittsburgh's Frick Fine Arts Gallery. Curated by Rina Youngner, the exhibit brought together for the first time over 160 prints, paintings, lithographs, sketches and photographs depicting the evolution of Pittsburgh as an industrial center. Ranging from an 1838 salt works painting to the contemporary work of Robert Qualters, Jet Lowe, and Matthew Kierstead, the exhibit also focused attention on the different ways artistic movements shaped the portrayal of heavy industry and the "Smoky City." The reception drew a huge crowd including two congressmen and many members of the Pittsburgh community involved in preserving the city's industrial legacy.

On Friday, seven different tours were offered, covering the wide range of the region's industries. Two tours involved the most celebrated process: steel-making. The Steel Valley Tour visited the Monongahela Valley, home of Andrew Carnegie's (later USS, now USX) empire, which suffered massive layoffs

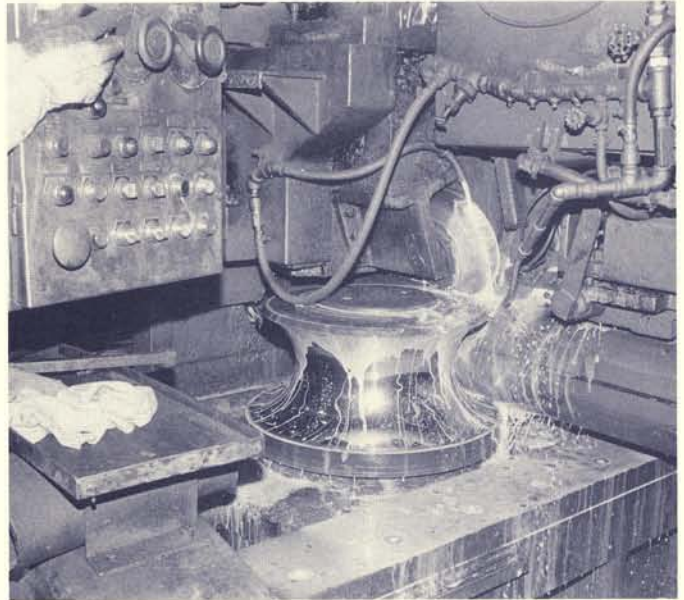




The manufacture of large-diameter steel pipe at the Camp Hill Corp. plant, McKeesport, Pa., formerly National Tube.

*Right:* Here the pipe—far right—has been completely formed, rolled into a cylinder from flat stock, and is passing through the butt welder to close the seam. The excess weld, inside and out, is trimmed off.

*Photos by E. Kutsch, above; R.M. Vogel, right.*



and plant closings in the 1980s. **Camp Hill Corp.**, a small remnant of the vast National Tube Works in McKeesport, opened in 1987, producing large-diameter pipe by electric-resistance butt-welding technology. The **USS Duquesne Works**, built in 1890, was closed in 1984 and is the site of continuing demolition which will save only a handful of buildings for an industrial park. Nonetheless, tourers had a chance to walk in and around the crumbling Blast Furnace Plant, home of the first fully automated raw materials delivery system in blast furnace production. United States Steel's **Edgar Thomson Works**, founded by Carnegie in 1873, is the last fully integrated steel mill in the Valley. Here tourers got a glimpse of the Blast Furnace Plant (begun 1880) and a tour of the 1972 Basic Oxygen Process building, to see firsthand how steel is made. They also toured USX's "pride and joy," the year-old Continuous Caster, seen as the modern facility that will sustain steel production in the Valley for decades to come.

Another busload went to the Ohio River Valley, at **Wheeling-Pittsburgh Steel Corporation's Steubenville Plant** visiting the Koppers by-product coke batteries and the blast furnaces. After an informal lunch at the company headquarters, the tour continued to the 1965 basic oxygen furnace, which houses two 300-ton vessels with a capacity of

3 million tons a year. The 1983 Continuous Caster and the 80-inch hot strip mill (built by Blaw-Knox in 1965) rounded out the tour. The bus returned to Pittsburgh along the Ohio, passing the **Weirton-Steubenville Memorial Bridge**, an asymmetrical cable-stayed span opened in 1990.

Two other tours ventured further "up" the Monongahela Valley to the Mid-Mon Valley and the Connellsville Coal and Coke Region. The Coal & Coke Tour visited the **USS Clairton Works**, at one time the largest by-product coking operation in the world, whose construction in 1918 sounded the death knell for the beehive coking industry of the Connellsville Region. After the other bus stopped to see the collections of the **Monongahela River Buffs Museum**, the tours went on to Brownsville, site of three projects recorded by HAER's Homestead office in 1992. The oldest of these is the **Dunlap Creek Bridge**, the nation's first cast-iron bridge, completed in 1839 for the National Road. This old boat building center is also home to the shops of the **Monongahela Railway**, a coal-hauling line recently taken over by Conrail and **HBC Barge**, a leader in inland barge production. Here one of the tours witnessed a spectacular launch of one of HBC's jumbo hopper barges. Afterwards the buses ventured further south to the **W.A. Young & Sons Foundry and Machine Shop** in Rices Landing. Here a c1900 belt-driven



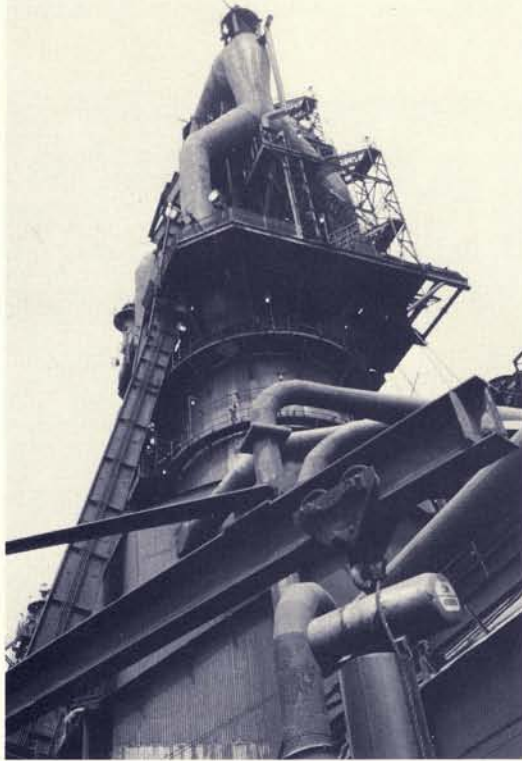
#### OHIO RIVER BRIDGES AT STEUBENVILLE.

*Left:* The Weirton-Steubenville Veteran's Memorial Bridge is an asymmetrical, 1,964-ft. cable-stayed bridge between Weirton, W.V., and Steubenville, Ohio, built 1979-83.

*Right:* Suspension bridge at Weirton-Steubenville. *R. Frame photos.*





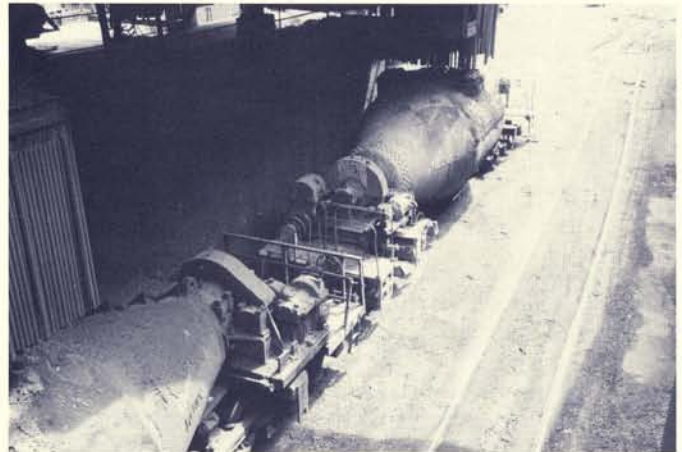
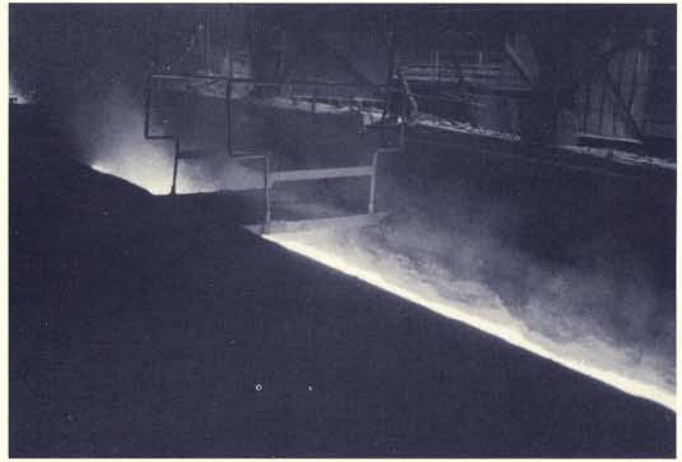


Views at South Works blast furnace, Mingo Junction, Ohio, of Wheeling-Pittsburgh Steel Corp. *R. Frame photos.*

machine shop is preserved by the Greene County Historical Society. After crossing the Monongahela into Fayette County, the Coal & Coke tour visited a “re-mining” operation, where the pillars from an old drift mine are recovered by strip mining. At **Shoaf**, the tour visited the region’s best-preserved beehive ovens, built by Frick in 1904. Here 300 ovens, Covington coke-drawing machines, and various ancillary structures are preserved by Max Noble, the site’s owner since 1959. On the return trip, the bus drove through Connellsville, Scottdale, and West Overton—the birthplace of Henry Clay Frick—for a long, but rewarding day.

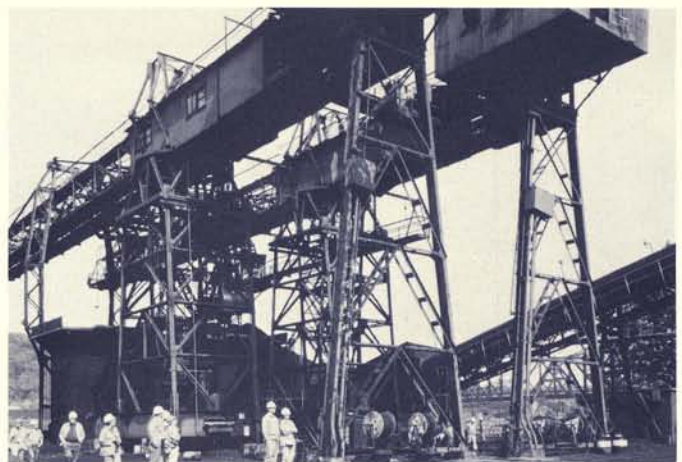
The Robotics & Glass Tour was not the run-of-the-mill SIA tour. Beginning at the futuristic robotics labs at **Carnegie-Mellon University’s Engineering Design Research Center**, tour participants were given an in-depth look at some of the new technologies under development that eventually will eliminate bottlenecks in product conceptualization and design. At this somewhat unlikely setting for an SIA process tour, participants asked numerous questions and even took photos of transparencies used in the presentation. The tour then proceeded to the float-glass plant of **Pittsburgh Plate Glass** at Meadville. The bus passed

Coal is delivered by barge to the By-Product Coking Operations at the East Works in Follansbee, W.V., of Wheeling-Pittsburgh Steel Corp. Below (*left & right*) are views of the barge-unloading operation. *R. Frame photos.*



through western Pennsylvania’s rolling hills and some of its best agricultural land, stopping for lunch at **McConnell’s Mill**, a mid-19th century grist mill. The PPG tour was fascinating in many respects, but one of the most striking features was the near-complete automation of the process and the near absence of glass workers. On the return trip to Pittsburgh, tourers viewed early-20th-cen. movies of window glass production. In general, participants found the long bus trip a relaxing break from the usual jam-packed SIA tour.

Another group spent the day sampling the art and artifacts of one of Pittsburgh’s oldest industries: brewing. Although only two breweries remain active, Pittsburgh nonetheless boasts a rich heritage of extant brewery architecture. These include the former **Duquesne Brewing Co.**, **Christian Moerlein Beer Warehouse**, and the **Wilhelm Brewery** on the Southside. The feature process tour was through the **Pittsburgh Brewing Co.**, home of Iron City, including a look







**COKING.**

*Left:* Beehive coke ovens at Shoaf Coke Works (1904-72).

*Right:* Coke ovens at USS Clairton Works (1916). Note the oven without a door, undergoing maintenance.

*A. Eisenpress photos.*



at several 19th-cen. copper kettles. Lunch and further sampling occurred at the **Allegheny Brewery and Pub** in the city's old "Deushtown" section. Here Tom Pastorius has renovated an abandoned brewery and used German brewing techniques and equipment to establish his own line of "Penn Pilsener" to standards of the German "reinheitsgebot."

The industry of the Allegheny River was the focus of yet another tour. After passing many notable bridges constructed in the 1920s, the bus stopped at the **Aspinwall Pumping Station** and filtration plant, built in 1905. It also stopped by **Allegheny River Lock & Dam No. 2**, visited by SIA in 1974. The **Tour-Ed Mine** was next, a restored operating coal mine in Tarentum. Finally the tour explored the problem of industrialization vs. environmental concerns by stopping by the **Rachel Carson Homestead** and the nearby **Cheswick Power Station**, a coal-fired generating plant with a 750-foot stack.

After a full day of tours, participants were treated to a walking tour through the lenticular trusses of the **Smithfield**

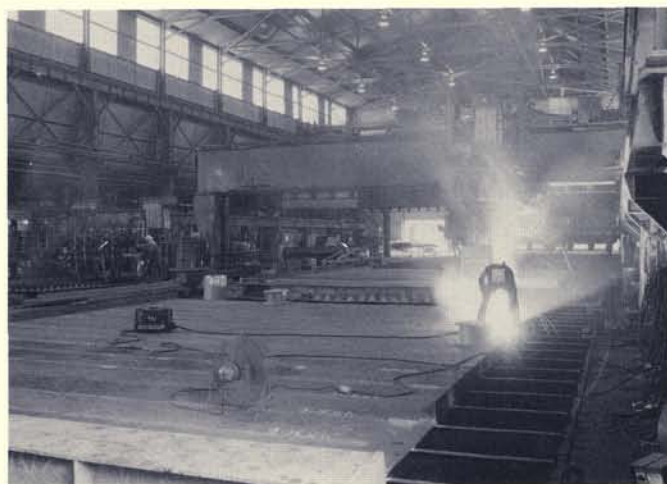
**Street Bridge** (Gustave Lindenthal, 1883), enroute to a reception hosted by the Pittsburgh History & Landmarks Foundation. The setting was Station Square's **Bessemer Court**, whose centerpiece is an A.M. Byers Co. Bessemer converter, one of many industrial artifacts that will be part of an industrial riverwalk [SIAN Summer 1991:1].

Saturday featured the traditional SIA paper session, including the first all-day IA video session. At the Annual Business Meeting, Three Rivers Chapter member Emory Kemp received the inaugural "SIA General Tool Award for Distinguished Service to Industrial Archeology." Saturday

*Below Left:* Welder at work, standing on unfinished barge at Hillman Barge & Construction Co., Brownsville, Pa.

*Right-upper:* SIA tourers strain for view of the almost-hidden Dunlap Creek Bridge (1836-39), Brownsville, first cast-iron arch built in the U.S.

*Right-lower:* General view inside W.A. Young & Sons Foundry & Machine Shop (1900), Rices Landing. *A. Eisenpress photos.*







Right: Banqueting beneath the roof trusses of the 1898 Lake Chautauqua Ice Co. Warehouse, future home of the Pittsburgh History Center. R. Harris photo.

Left: Viewing the unique lenticular trusses of Lindenthal's Smithfield Street Bridge (1883). R. Frame photo.



Views from the Monongahela River boat tour. Photos by R. Frame, left; R. Harris, below.



Below: Conf. registrants standing in the shadow of the Bessemer converter preserved at Station Square, originally the Pittsburgh & Lake Erie RR Terminal. R. Harris photo.

night's banquet was hosted by the Historical Society of Western Pennsylvania in the 1898 **Lake Chautauqua Ice Co. Warehouse**, future home of the Pittsburgh History Center.

Sunday morning offered a brunch and cruise up the Monongahela from Station Square to Elizabeth. This three-hour trip passed the sites of several steel mills and "The Pumphouse," a survivor of the bloody 1892 Homestead Strike. Also surveyed were many of the region's bridges, from the county's historic highway bridges to hot-metal bridges built by the steel companies. At the tour's end, architectural historian Walter Kidney led a walking tour of downtown Pittsburgh's **Golden Triangle**, passing H.H. Richardson's **Allegheny County Courthouse** and the headquarters of many present and former industrial concerns including Frick, Mellon, Jones & Laughlin, PPG, Alcoa, Gulf, Koppers, and USX.

The post-conference tour on Monday featured the historic sites of America's Industrial Heritage Project (AIHP). After a three-hour bus ride on the 54-year-old **Pennsylvania Turnpike**, SIAers reached Orbisonia, Pa., to ride and tour the shops of the **East Broad Top Railroad**, a narrow-gauge coal-hauling line begun in 1874. On the drive back the tour stopped at world-famous **Horseshoe Curve**, part of the Pennsylvania RR Mainline since 1854.

Many people and organizations contributed to the success of this conference. The conference co-chairs were Richard O'Connor and Christopher Marston, president and vice-president of the Three Rivers Chapter, respectively. Steering Committee members included Jim Alexander, Mark Brown, George Danko, Christine Davis, J.K. Folmar, Matthew Kierstead, Billy Joe Peyton, Fred Quivik, and Joel Sabadasz. The Conference host was the SIA Three Rivers Chapter along with the Historical Society of Western Penn., Pittsburgh History & Landmarks Foundation, the Institute for the History of Technology & Industrial Archaeology, the Steel Industry Heritage Corp., America's Industrial Heritage Project, and the Penn. Historical & Museum Commission. Contributors to the *Guidebook to the Pittsburgh Region*, edited by Christopher Marston, included (in addition to those named above): Ted Muller, Richard Dochter and Richard Wagner, Fred Quivik, Walter Kidney, and Christine Jones. The guidebook is available for \$10 from the Institute for the History of Technology & Industrial Archaeology, c/o Communications Coordinator, 1535 Mileground, Morgantown, WV 26505 (314-293-2513).  
C.H.M.

