



SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

Volume 17

Fall 1988

Number 3

1988 Fall Tour highlights Lehigh Valley industry



The celebrated Bethlehem Plant of Bethlehem Steel Corp. *Gregory Galer photo for SIAN.*

Touring Pennsylvania's Lehigh Valley, "Birthplace of the American Industrial Revolution," Sept. 15-18, the SIA's 1988 Fall Tour was co-sponsored by the Hugh Moore Historical Park & Museums, Inc., and the newly organized Josiah White & Erskine Hazard Chapter SIA, and HQ'd at the Hotel Easton.

Festivities began Thursday afternoon with an "early bird" tour of **Plane No. 9 West, on N.J.'s Morris Canal**, located near Phillipsburg. Designated an ASME Landmark, it was one of 23 inclined planes on the canal linking Pa. & New York Harbor. It has been excavated and interpreted by canal historian James Lee [SIA], who showed tourers the plane's original turbine and the canal history museum located in his own home, a former planetender's house.

The Thursday evening program included a slide lecture by Donald Sayenga on Josiah White and Erskine Hazard, founders of the Lehigh Coal & Navigation Co. He explained how the construction of their Lehigh Navigation System and their early use of anthracite coal and waterpower laid the foundation for the Lehigh Valley's industrial development. Craig L. Bartholomew explained how iron master David Thomas and others turned the valley into America's greatest iron region by 1875. Lance Metz introduced the historical accomplishments of Robert H. Sayre, John Fritz, and Charles Schwab in the establishment

of the modern Bethlehem Steel Corp., which, with predecessor Bethlehem Iron Co., pioneered in the efficient production of Bessemer steel, the development of heavy forging technology, and the development of the wide-flange, structural beam and column. All this had made possible modern warships and armor, as well as high-rise structures and long-span bridges.

Friday began with a tour of the **Bethlehem Plant of Bethlehem Steel Corp.**, thanks to plant manager Andrew Futchko. The itinerary included visits to the powerhouse with its massive furnace-gas-fueled internal combustion blowing engines, structural-steel production facilities with steam-powered blooming and shaping mills, the basic oxygen process (BOP) steel furnaces, and the great forge shop containing America's largest open-die hydraulic forging press.

Following lunch in the nearby Lehigh Canal town of Freemansburg, the tour moved to Lehigh Univ.'s Bethlehem campus and its Fritz Engineering Lab., Packard Electrical Engineering Lab, and Packer Memorial Chapel. The **Fritz Engineering Lab.** was founded by John Fritz in 1910 as a structural engineering research center. Its reputation became international and in 1955 it was greatly enlarged, with the addition of a massive universal testing machine, today the second largest of its type in the world. The **Packard Electrical Engineering Lab.** was