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Historic American Engineering Record Catalog

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HAER Catalog 1976

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Historic American Engineering Record Catalog 1976

Compiled by Donald E. Sackheim

National Park Service U.S. Department of the Interior Washington, D.C.

Frontispiece: Starrucca Viaduct of the Erie Railway, Lanesboro, Pennsylvania. This catalog was compiled with the special assistance of R. Carole Huberman, who began it; Beverly N. Baynes, who helped organize it over two summers; Robert M. Vogel, who helped make it as accurate as possible; and Eric N. DeLony, who shared willingly his seemingly endless supply of information.

Unless otherwise noted, all photographs are by Jack E. Boucher except those for Colorado, Maryland, and West Virginia, which are by William Edmund Barrett.

Prepared by the National Park Service, Office of Archeology and Historic Preservation. Historic American Engineering Record, Douglas L. Griffin, Chief.

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Introduction

Historians have long recognized the impact of technology on the economic and social aspects of American society, but little attention traditionally has been paid to the physical sites which represent that technology. Nor have people involved in the field of historic preservation typically focused their attention upon structures having to do with engineering, industrial, or technological history.

Since the passage of the Historic Preservation Act of 1966, however, historians and preservationists have shown increasing interest in the engineering and industrial heritage of the United States, and in the surviving historic sites, structures, and objects which relate to it. The years since 1966 have witnessed a growing nationwide awareness of the importance not only of the elegant mansion, but also of the factory which paid for it; not only of the antique street lamp, but also of the commercial gasholder which supplied it; not only of the picturesque railroad station, but also of the bridge which led to it and the shop facilities which supplemented it.

Because of the rapid changes which occur in technology, important historic sites continually are being modernized, replaced, or destroyed. The nature of technological and economic progress often dictates that obsolete structures cannot function properly in a modern society. An iron truss bridge, for example, built during the days of carriages and early automobiles, simply cannot carry satisfactorily the loads of a modern highway. Fortunately, as the historic preservation movement in the United States becomes increasingly aware of the resources inherent in historic engineering and industrial structures, more and more of them are being adapted to modern functions: a trolley car barn has become a shopping center, a tanning factory has been converted to an apartment building, a railroad bridge has been turned into a restaurant. But such cases are still the exceptions. It is far more common to see a historic transportation canal become a trash dump, a historic railroad station-hotel give way to a chain motel, or a historic industrial district succumb to a fire of questionable origin.

To meet the problem of rapidly disappearing engineering and industrial sites, the National Park Service, in 1969, established the Historic American Engineering Record (HAER) to prepare archival documentation on important historic structures—both to encourage their preservation, and to make sure that if they 'are destroyed, at least permanent records will remain. Founded jointly by the Park Service, the Library of Congress, and the American Society of Civil Engineers, the Engineering Record prepares original measured drawings, photogrammetric stereopairs, professional photographs and photocopies, historical reports, technical analyses, and in some cases motion pictures, all of which are deposited permanently in the Library of Congress to provide research material for historians, engineers, architects, preservationists, and the general public.

This catalog presents the documentation in the HAER collection, both in the Library of Congress and awaiting transmittal from the HAER office, produced between January 1, 1969, and December 31, 1975. It is the first comprehensive review the Engineering Record has compiled, and includes 574 sheets of measured drawings, 46 stereopairs and stereotriplets, 567 photocopies, 2,315 photographs, 2 motion pictures, and 383 completed data pages of historical and technical information—as well as several hundred pending photographs not yet actually submitted by HAER photographers, and hundreds of pages of reference material still in unfinished form—all organized within 514 individual catalog entries. A subject index is included at the end. Illustrations have been selected both to present some of the excellent visual material in the HAER collection, and to indicate the variety of sites covered by the collection.

In many cases the descriptive information given for a particular catalog entry may seem incomplete, even inadequate, especially in regard to technical details and historical background. Inevitably there will be things one would like to know that are not supplied here. However, because the amount of information in the HAER collection varies greatly from site to site, an attempt to present complete and definitive entries would have resulted in either an extremely uneven book, or a publication delay of a year or more. Instead, the primary purpose of this first catalog has been to impose a basic organization on the collection, present an overview of what it contains, and make the information that *is* supplied as accurate and reliable as possible. Future HAER publications, focusing on a specific state, region, or theme, will include more comprehensive visual, historical, and technical material. †

Entries are organized alphabetically by state, then alphabetically by city, town, or vicinity, then alphabetically by name. (For the sake of clarity, a few exceptions are made in the arrangement of names—for example, the entry for the Great Falls/ S.U.M. Historic District in Paterson, New Jersey, is placed before those for each individual site within the district; the general entry for the Lowell Canal System in Massachusetts is placed before the separate canals within the system; the individual structures of the Tooele Smelter in Utah are arranged in the order in which they occur in the smelting process.)

Sites are organized by the names of cities and towns listed in either the Department of Health, Education, and Welfare book of Geographical Location Codes, or the Postal Service National Zip Code Directory. A small town listed in neither the HEW nor the zip code book is indicated within parentheses; for example: Clinton vicinity (Hamden)—Hunterdon County. A site located outside a city or town proper is indicated in a vicinity relationship to the nearest city or town (listed in the HEW or zip code book) in the same county as the site. A few exceptions are made for sites near, but not within, independent cities in Virginia; in such cases the city name is given with an indication of its independent status, followed by the name of the adjacent county in which the site itself is located. Example: Covington (independent city) vicinity—Alleghany County.

Individual entries may include any of the following information, abbreviations, and symbols, in order:

- * An asterisk before a site name indicates that the material listed in the entry has been transmitted to the Library of Congress.
- Name In general, the original or historic formal name is given. Common or later names are indicated

[†]The first such publication: Robert M. Vogel, ed., A Report of the Mohawk-Hudson Area Survey (Smithsonian Institution Press, 1973), is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock number 4700-00258.

within parentheses. When no distinctive historic or common name exists, a distinguishing name is assigned (this is particularly true in the case of anonymous railroad and highway bridges). If the name of an industrial company has changed over time, the first name given is the name used at the time a site was constructed; for example: Wiessner (American) Brewery. This is true except for sites along the Erie Railway in New York and Pennsylvania. The Erie has had several names through its history: New York and Erie Railroad; New York, Lake Erie, and Western Railroad; Erie Railway Company; Erie Railroad Company. Because the dates of many Erie sites in the HAER collection remain undetermined, all Erie structures are simply designated Erie Railway.

- Date(s) When construction occurred over a period of time, the inclusive dates are separated by a hyphen. Subsequent dates following a comma indicate the times of major additions or alterations. The absence of a date indicates it has not yet been determined.
- Location Whenever possible, a site is located in relation to streets, highways, and waterways which an average visitor is likely to find. If a site has a commonly used street address this is given first, and the longer description follows. For some isolated rural sites without identifiable roads nearby (as in Utah), the name of a mountain or canyon must suffice. If a site is described in a vicinity relationship to a city or town, its distance is given from the center (not the edge) of town.

USGS quad, UTM Immediately following the location are the name of the U.S. Geological Survey quadrangle map (7.5 minute series, scale 1:24,000, unless otherwise noted) on which the site is located, and the site's 15-digit Universal Transverse Mercator grid reference number. The UTM grid reference locates a site exactly, regardless of the degree of specificity of the descriptive location which precedes it. Unless otherwise indicated, it refers to the center point of a site. In cases where the exact location is uncertain, particularly in regard to rural sites or to demolished structures for which HAER has only old photographs, the UTM number is followed by (approx).

- Statement In most cases, a descriptive or historical statement is given to indicate briefly the primary interest of a site. Some statements are more informative than others; their sufficiency is directly proportional to the amount of research the HAER staff has been able to complete. Some entries, mostly for sites photographed from the air along the Erie Railway, have no statement. Structures that have been abandoned or demolished are so indicated, and the date is given if it is known. Demolished means destruction was planned and deliberate; destroyed means it was sudden and unexpected (as by fire).
- HAER The two-letter state abbreviation followed by a number is the designation given by the HAER office to each site.
- Field notes Drawings and measurements of a structure which are made in the field are used later in the preparation of finished measured drawings. Although field notes are transmitted to the Library of Congress with other documentation, they are not archival, and are not normally photo-reproduced for the public.
- Sheets Measured drawings are drawn in acetate ink on polyester sheets (usually 24" × 36") for archival permanence.
- Stereopairs, Glass plate negatives, taken from two or three Stereotriplets slightly different station points, may be plotted photogrammetrically at a later time to produce measured drawings of structures too large or too complicated for recording by hand.

Photocopies	HAER historians are encouraged to look for old drawings, photographs, woodcuts, renderings, etc., to supplement and give historical depth to the new visual documentation produced.
Photos	Professional photographs of recorded sites are taken with large format $(4'' \times 5'' \text{ or } 5'' \times 7'')$ view camera equipment to correct for perspective distortion, and processed for archival perma- nence. Photos are a mixture of general and de- tailed exterior (ext.) or interior (int.) views un- less a more specific description is indicated. Photos from early dates (such as 1906)—mostly of sites along the Erie Railway—are indeed photos made from old nitrate negatives, ob- tained in the course of research; they are not photocopies. Photos "pending" means that the negatives, not yet received by the HAER office, are still with the photographer (from whom copies nevertheless may be ordered).
Data pages	Finished pages of historical and technical in- formation for the Library of Congress are typewritten, single spaced, on archival (low acid) paper $8'' \times 10\frac{1}{2}''$.
ref.	Historical and technical information still in unfinished or unedited form is kept in reference files within the HAER office. Such material varies greatly in amount, depth, and complete- ness.
NHL	The site has been designated a National His- toric Landmark by the Secretary of the Interior.
NR	The site is listed in the National Register of Historic Places.
HABS	The site has been recorded by the Historic American Buildings Survey.
NHCEL	The site has been designated a National His- toric Civil Engineering Landmark by the American Society of Civil Engineers.

NHMEL The site has been designated a National Historic Mechanical Engineering Landmark by the American Society of Mechanical Engineers.

All documentation produced by the Historic American Engineering Record is available to the public for reference and reproduction. To consult or order material on deposit in the Library of Congress, write:

> Prints and Photographs Division Library of Congress Washington, D.C. 20540

For material still in the HAER office, write:

Historic American Engineering Record National Park Service Washington, D.C. 20240

Since the process of documentation is never really complete, much of the information in this catalog represents only a beginning, not a definitive end. The Engineering Record welcomes additions, corrections, and supplementary information from readers and users of the book. The HAER collection is a public resource, and contributions from the public are valuable to its accuracy and completeness.

D.E.S.

March 1976

Union Station Train Shed: Original drawing, 1896.



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Alabama



Sloss Blast Furnaces from the south. Furnace # 2 and casting shed on the left, Furnace # 1 and casting shed on the right, stoves and boilers in the center.

Birmingham—Jefferson County

SLOSS BLAST FURNACES, 1927–29

SE side of First Ave., W. of 32nd St. Birmingham North, 16.519340.3708800. Furnace #1 is the oldest surviving blast furnace in the Birmingham area, and perhaps in the U.S. AL-3. Photos (1974) pending. NR.

Montgomery—Montgomery County

UNION STATION, 1897-98

NW side of Water St. opposite Lee St. Montgomery North, 16.564510.3582600. Romanesque style, built by the Louisville and Nashville Railroad. AL-2. 1 photocopy of architect's original drawing (1896); 1 photocopy of ext. photograph (date unknown); photos (1974) pending. NR.

UNION STATION TRAIN SHED, 1897–98

NW side of Water St. opposite Lee St., along Alabama River. Montgomery North, 16.564480.3582620. One of eleven known long-span, trussed-roof train sheds surviving in the U.S. AL-1. Field notes (1974); 2 photocopies of architect's original drawings (1896, 1897); 2 photocopies of ext. photographs (dates unknown); photos (1974) pending. NR.



Union Station, with the train shed to the rear. Early post card photograph.

Prattville—Autauga County

CONTINENTAL GIN COMPANY FACTORY

W. bank of Autauga Creek opposite spillway. Montgomery (15 min.), 16.549150.3591300. Outgrowth of the factory founded by Daniel Pratt to produce cotton gins. AL-5. Photos (1974) pending.

Sylacauga vicinity—Talladega County

GANTTS QUARRY, c.1890

Quarry Rd., 2.5 mi. SW of Sylacauga. Gantts Quarry (15 min.), 16.566320.3668950. One of the principal marble quarries in Alabama. AL-6. Photos (1974) pending.

Woodward-Jefferson County

WOODWARD IRON WORKS, 1883+

W. of County Rt. 57, E. of Opossum Creek. Bessemer, 16.503250.3699540. Largest independent manufacturer of pig iron in the U.S. Demolished 1974-75. AL-4. Photos (1974) pending.

California

San Francisco—San Francisco County

SAN FRANCISCO FIRE DEPARTMENT: PUMPING STATION 2, 1912 Black Pt., Ft. Mason Military Reservation, N. end of Van Ness Ave. San Francisco North, 10.550550.4184460. Part of

California

the auxiliary fire fighting system, completely separate from the domestic water supply system, which was designed and installed after the 1906 earthquake and fire. CA-1. 28 photocopies of original architectural and engineering drawings (1912); photos (1975) pending; ref.



Pumping Station 2: Original drawings, 1912, showing north elevation and transverse section at the condenser pit.

Colorado

Denver—Denver County

MILWAUKEE (TIVOLI-UNION) BREWERY, 1890–91 1320–48 Tenth St.; W. side of Tenth St., N. of Larimer St. Fort Logan, 13.499580.4399290. Pioneer industry in Denver; operated until 1969. Brewing equipment survives. CO-1. 6 ext. photos (1970); 19 int. photos (1970); ref. NR.



Ophir vicinity—San Miguel County

TELLURIDE POWER COMPANY: AMES HYDROELECTRIC PLANT, 1890–91

S. bank of Howard Fork, 0.3 mi. N. of State Rt. 145, 3 mi. W. of Ophir. Mount Wilson, 13.246600.4194550 (approx). Site of the first long-distance commercial transmission of high voltage alternating current in the U.S. Demolished. CO-2. 1 photocopy of map (c.1920); 1 photocopy of plan and sections (1907); 5 photocopies of ext. photographs (2-1913, 3-c.1920?); 2 photocopies of int. photographs (c.1920?).

Tivoli-Union Brewery: Front elevation of the tower (left), and interior (right) showing a mixing vat and iron stairway.



Colorado



Ames Hydroelectric Plant: Plan and sections from 1907.

Connecticut

Eastford vicinity (Phoenixville)—Windham County

PHOENIX MILL, 1823

N. bank of Still River, 500 ft. SW of intersection of U.S. 44 and State Rt. 198, 2 mi. S. of Eastford. Eastford, 18.741920.4639860. Stone cotton mill, adapted for twine production in the 1860s. To be moved to Old Sturbridge Village, Mass. CT-3. Field notes (1974); 7 sheets showing site plan, plans, sections, elevations (1974); 4 ext. photos (1974); 17 int. photos (1974); ref.

Hamden-New Haven County

*ELI WHITNEY ARMORY SITE, 1798+

W. side of Whitney Ave. to E. side of Mill River, near Armory St. The location of Eli Whitney's musket factory; important in the history of the American System of Manufactures. CT-2. 1 sheet showing site plan (1974); 21 photocopies of various maps, woodcuts, plans, and photographs (1826-1931); 5 photos (1974); 116 data pages (1974-75). NR.



Woodcut from 1880 of the Eli Whitney Armory, showing Lake Whitney Dam, the main armory building (with cupola), and East Rock in the background.

Connecticut

*ELI WHITNEY ARMORY: BARN, 1816

W. side of Whitney Ave., 200 ft. S. of Armory St. New Haven, 18.674710.4577940. Largest surviving structure built by Eli Whitney. CT-2A. Field notes (1974); 7 sheets showing plans, sections, elevations, isometric (1974); 2 photocopies of drawings (c. 1817); 5 ext. photos (1974); 9 int. photos (1974); 7 data pages (1974–75). NR.

*ELI WHITNEY ARMORY: BOARDING HOUSE, c.1816

SW corner of Whitney Ave. and Armory St. New Haven, 18.674700.4577980. Part of Eli Whitney's factory village; residence for single men. CT–2D. Field notes (1974); 1 sheet showing plans, elevations (1974); 2 ext. photos (1974); 1 data page (1975). NR.

*ELI WHITNEY ARMORY: FORGE BUILDING, c.1804+

E. side of Mill River, 250 ft. S. of Lake Whitney Dam. New Haven, 18.674850.4577950. An important element in Eli Whitney's early manufacturing process. Demolished 1950. CT–2B. Field notes (1974); 1 sheet showing archeological excavation (1974); 3 photocopies of drawings (early 19th century); 2 photocopies of ext. photographs (c.1870, c.1930); 3 photos of archeological excavation (1974); 1 data page (1975). NR.

*ELI WHITNEY ARMORY: FUEL STORAGE SHED, c.1804

200 ft. E. of Mill River, 250 ft. S. of Lake Whitney Dam. New Haven, 18.674880.4577950. As a surviving structure, helps verify early 19th-century descriptions of the armory site. CT-2C. Field notes (1974); 2 sheets showing plans, sections, elevations, details (1974); 1 photocopy of ext. photograph (c.1930); 1 ext. photo (1974); 1 data page (1975). NR.

New London—New London County

THAMES TOW BOAT COMPANY (THAMES SHIPYARD), 1900–03

W. bank of Thames River at E. end of Farnsworth St. Established as a towing company primarily for coal barges; site



Eli Whitney Armory Barn: East elevation. David Sharpe, photographer.



Eli Whitney Armory Forge Building: Plan of archeological excavation, 1974. Adrienne Kols and Toni Ristau, delineators.

Connecticut

later used as a shipyard for the repair and maintenance of naval, commercial, and pleasure boats. CT-1. 1 sheet showing site plan (1975); 1 photocopy of artist's rendering (c.1905); 10 aerial photos (1975); ref. NR.

THAMES SHIPYARD: HEADHOUSE, 1900–03

Uncasville, 18.742650.4584650. Contains the hauling machinery for one of three known steam-powered marine railways in the U.S. CT-1A. Field notes (1975); 3 sheets showing plan, sections, elevations (1975); ref. NR.

THAMES SHIPYARD: MARINE RAILWAY 3, 1919

Uncasville, 18.742710.4584630. Only marine railway at the shipyard which is still operational (electrically powered). CT–1B. Field notes (1975); 1 sheet showing plan, section, elevation (1975); ref. NR.



THE THAMES TOW BOAT COMPANY'S MARINE RAILWAY PLANT THAMES RIVER - NEW LONDON, CONN.

View of the Thames Shipyard drawn c.1905.

Delaware

Dover-Kent County

RICHARDSON AND ROBBINS CANNERY, 1881

E. side of King St. opposite Reed St. Dover, 18.454-750.4334440. Part of the first and oldest canning company in Delaware. DE-3. 13 photocopies of various drawings and photographs; 6 ext. photos (1975); 8 int. photos (1975); ref.

Lewes—Sussex County

H. W. HOCKER MANUFACTURING COMPANY FACTORY, 1910–11, 1952–53

S. side of Front St., W. of Savannah Rd. Lewes, 18.487-710.4291760. Produces three standard paste brushes on special-purpose machines designed or adapted by the owner. DE-7. Field notes (1975); 1 sheet showing site plan, plan (1975); 2 ext. photos (1975); 7 int. photos (1975); ref.

Milford—Kent County

J. H. WILKERSON AND SON BRICK WORKS, 1912

N. side of Mispillion River, 1000 ft. E. of State Rt. 14. Milford, 18.464130.4307660. Operated until the late 1950s; all original equipment survives. DE-5. Field notes (1975); 3 sheets showing site plan, plan, section, diagram of brick making process (1975); 6 photocopies of brick making equipment (1-1884, 2-1907, other dates unknown); 13 ext. photos (1975); 16 int. photos (1975); ref.

Milford—Sussex County

MILFORD ICE AND COAL PLANT, c.1893

N. side of State Rt. 36, 500 ft. E. of Silver Lake. Milford, 18.462600.4306890. One of the first mechanical ice plants

Delaware

in Delaware. DE-4. 1 photocopy of drawing (date unknown); 3 photocopies of equipment (dates unknown); 4 ext. photos (1975); 21 int. photos (1975); ref.

Millsboro-Sussex County

HOUSTON-WHITE COMPANY MILL AND BASKET FACTORY, 1905

W. corner of Washington St. and State Rt. 24. Millsboro, 18.474570.4270780. Largest element in a factory complex which grew along with the produce industry of Sussex County. DE-6. Field notes (1975); 5 sheets showing site plan, plans, elevations (1975); 21 photocopies of various machines, baskets, and photographs; 11 ext. photos (1975); 16 int. photos (1975); ref.

Newark—New Castle County

CURTIS PAPER MILL, 1887

W. side of State Rt. 72, 0.6 mi. N. of State Rt. 2/273. Newark East, 18.435660.4393490. Continues to manufacture the same lines of quality rag-content papers it produced in the 19th century. DE-1. 10 photocopies of various machines, drawings, and photographs; 3 ext. photos (1975); 6 int. photos (1975); ref.

Newark vicinity (Pleasant Hill)—New Castle County

EASTBURN-JEANES LIMEKILNS, 1820-50

E. side of State Rt. 72 between Polly Drummond Hill Rd. and Pike Creek Rd., 4.4 mi. NE of Newark. Remains of a family operation supplying lime for agriculture and building materials. DE-2. Field notes (1975); 2 sheets showing site plan, section, elevations (1975); photos (1975) pending; ref. Wilmington—New Castle County

HARLAN AND HOLLINGSWORTH COMPANY FACTORY, c.1880

SW side of Lancaster Ave. opposite West St. Wilmington South, 18.452250.4398650. Manufactured railroad cars, iron ships, steam engines, and boilers. DE-8. 27 photocopies of various drawings, machinery, railroad cars, and ships; photos (1975) pending; ref.

District of Columbia

Washington

GODEY LIMEKILNS, 1864

E. side of Rock Creek and Potomac Pkwy., 350 ft. N. of K St., NW. Washington West, 18.321640.4307850. Used for the manufacture of lime until 1907. Partially demolished c.1964. DC-3. 2 photocopies of photographs (c.1900?, c.1963?). NR.

UNITED CLAY PRODUCTS COMPANY BRICK WORKS, 1923

2801 New York Ave., NE.; S. side of New York Ave., 0.3 mi. E. of Bladensburg Rd. Washington East, 18.329390. 4309140. Beehive ovens, brick kilns, and machinery operated until 1972. DC-2. Photos (1973) pending.

WASHINGTON TERMINAL COMPANY POWER PLANT, c.1907

E. side of First St. opposite I St., NE. Washington West, 18.326040.4307540. Provided heat and electric power for Union Station, and compressed air for track switches. Demolished 1974. DC-1. 1 ext. photo (1973); 4 int. photos of machinery (1973).

Washington Terminal Company Power Plant: East elevation.



District of Columbia / Georgia



Washington Terminal Company Power Plant: Nordberg compressor engine.

Columbus Iron Works: Electric generator and motor.

Georgia

Columbus—Muscogee County

COLUMBUS IRON WORKS, 1865+

W. side of Front Ave. between Eighth and Ninth Sts. Columbus, 16.688390.3593220. Established in 1853, the company was a primary arsenal for the Confederacy. Destroyed during the Civil War and rebuilt. GA-5. Photos (1974) pending. NR.

Georgia

EAGLE AND PHENIX MILLS, 1866+

W. side of Front Ave. between 12th and 13th Sts. Columbus, 16.688370.3594140. Pioneer textile mill complex in Columbus. GA-6. Photos (1974) pending.

Savannah—Chatham County

CENTRAL OF GEORGIA RAILROAD: SAVANNAH AND OGEECHEE CANAL VIADUCT, 1853

Spanning Savannah and Ogeechee Canal just N. of Louisville Rd. Savannah, 17.490200.3548800. Four brick masonry elliptical arches built to carry the main line across the canal. GA-3. Field notes (1975); 1 sheet showing plan, elevation (1975); ref.

CENTRAL OF GEORGIA RAILROAD: SAVANNAH AND OGEECHEE CANAL VIADUCT, 1860

Spanning Savannah and Ogeechee Canal 400 ft. N. of Louisville Rd. Savannah, 17 490220.3548910. Four brick masonry segmental arches built to carry tracks across the canal to the Dooley yards. GA-4. Field notes (1975); 1 sheet showing plan, elevation (1975); ref.

CENTRAL OF GEORGIA RAILROAD: SAVANNAH REPAIR SHOPS, 1853–1926

N. side of Jones St. between Boundary and Broad Sts. Savannah, 17.490380.3548560. Oldest surviving buildings of any railroad shop site in the U.S. Complex contains a machine shop, blacksmith shop, carpenter shop, boiler and engine house, offices, and a unique combination smokestack/water tank/privies, all dating from the 1850s; as well as a roundhouse, storehouse, and paint and coach shop dating from the 1920s. GA-1. Field notes (1975); 17 sheets showing site plan, plans, sections, elevations (1975); ref. NR.

CENTRAL OF GEORGIA RAILROAD: SAVANNAH STATION AND TRAIN SHED, 1860–66, 1878

NW corner of Railroad Ave. and Broad St. Savannah, 17.490580.3548670. Shed is one of eleven known long-span, trussed-roof train sheds surviving in the U.S. GA-2. Field notes (1975); 5 sheets showing plan, sections, elevations (1975); ref. Georgia / Illinois



Savannah Repair Shops: West elevation, showing the roundhouse, combination smokestack/water tank/privies, machine shop, and blacksmith shop. Peter Dubin, delineator.

Wilson Avenue Interlocking Tower: Mechanical interlocking levers.

Illinois

Chicago-Cook County

LAKE STREET ELEVATED RAILWAY: PULASKI ROAD INTERLOCKING TOWER, c.1896

Above N. side of Lake St., just E. of Pulaski Rd. Chicago Loop, 16.439850.4637120. Design is similar to the original towers around the Union Loop. Abandoned. IL-3. 3 ext. photos (1971); 1 int. photo (1971).

NORTHWESTERN ELEVATED RAILROAD: WILSON AVENUE INTERLOCKING TOWER, c.1900 Just S. of Wilson Ave., 100 ft. W. of Broadway. Chicago Loop, 16.445480.4645860. Design is similar to the original towers around the Union Loop; equipment survives. IL-2. 2 ext. photos (1971); 2 int. photos (1971).

UNION ELEVATED RAILROAD (UNION LOOP), 1897

Above Lake, Wabash, Van Buren, and Wells Sts. Originally joined the systems of four elevated railroad companies, giving downtown Chicago its nickname. IL-1. 3 aerial photos (1971); 21 photos (1971).

UNION LOOP: ADAMS STREET STATION

Above Wabash St. at Adams St. Chicago Loop, 16.448050.4636380. IL-1C. 5 photos (1971).

UNION LOOP: CLARK STREET STATION

Above Lake St. at Clark St. Chicago Loop, 16.447650.4637070. IL-1E. 4 photos (1971).

UNION LOOP: QUINCY STREET STATION

Above Wells St. at Quincy St. Chicago Loop, 16.447420.4636290. IL-1A. 1 photo (1971).

UNION LOOP: RANDOLPH STREET STATION

Above Wabash St. at Randolph St. Chicago Loop, 16.448050.4636920. IL-1D. 3 photos (1971).

Union Loop: Looking south on Wabash St. from Adams St.



Illinois



Quincy Street Station: West elevation.

UNION LOOP: RANDOLPH STREET STATION Above Wells St. at Randolph St. Chicago Loop, 16.447410.4636920. IL-1F. 2 photos (1971).

UNION LOOP: STATE STREET STATION Above Van Buren St. at State St. Chicago Loop, 16.447920.4636080. IL-1B. 4 photos (1971).

Alamo vicinity (Deer Mill)—Montgomery County

DEER MILL COVERED BRIDGE, 1878

Spanning Sugar Creek on State Rt. 234, 2.5 mi. S. of Alamo. Alamo, 16.494960.4421580. Two spans with Burr arch trusses. IN-28. 5 sheets showing site plan, plan, sections, elevations (1974).

Alton vicinity—Crawford County

MILL CREEK BRIDGE, 1885

Spanning Mill Creek 0.5 mi. N. of Alton. Beechwood, 16.550940.4420210. Pratt through-truss bridge, built by the Indianapolis Bridge Co. IN-23. Photos (1974) pending.

Anderson—Madison County

ANDERSON CARRIAGE MANUFACTURING COMPANY FACTORY, c.1900

NW corner of 25th and Walton Sts. Anderson South, 16.610170.4438490. Originally produced carriages and buggies; manufactured the Anderson automobile 1908–10. Partially destroyed c.1935. IN-37. Field notes (1972); 1 sheet showing plans, elevations (1972); 1 photocopy of aerial photograph (1972); 1 photocopy of fire photograph (c.1935); photos (1974) pending; ref.

BUCKEYE MANUFACTURING COMPANY FACTORY, 1904+

W. side of Columbia Ave. between 18th and 19th Sts. Anderson South, 16.613590.4439280. Manufactured the Lambert automobile 1905–17. Partially destroyed 1969. IN–35. Field notes (1972); 1 sheet showing plan from 1910, present elevations (1972); photos (1974) pending; ref.

RIDER-LEWIS MOTOR CAR COMPANY FACTORY, 1909

N. side of W. Second St. at Sycamore St. Anderson South, 16.610950.4441010. Manufactured the Rider-Lewis automobile 1909–10 before business failed; successive automanufacturers occupied the building until 1920. IN-38. Field notes (1972); 1 sheet showing plan, section, elevations (1972); photos (1974) pending; ref.

SPEED CHANGING PULLEY (later DeTAMBLE MOTORS) COMPANY FACTORY, 1908

N. side of 32nd St., E. of E. Lynn St. Anderson South, 16.613910.4437760. Manufactured the DeTamble automobile 1909–12. IN–36. Field notes (1972); 1 sheet showing plan, elevations (1972); 1 photocopy of ext. photograph (c.1936); photos (1974) pending; ref.

Aurora vicinity—Dearborn and Ohio Counties

LAUGHERY CREEK BRIDGE, 1878

Spanning Laughery Creek just W. of State Rt. 56, 2.5 mi. SE of Aurora. Aurora, 16.683010.4321420. Tripleintersection Pratt through-truss bridge: diagonal members each cross three panels. Extremely rare survivor of its type; oldest known metal truss bridge in Indiana. Built by the Wrought Iron Bridge Co., Canton, Ohio. IN-16. Field notes (1973); photos (1974) pending; ref. NR.



Laughery Creek Bridge: View from the northeast.

Brownsville—Union County

BROWNSVILLE COVERED BRIDGE (WAGON BRIDGE), 1837–40

Spanning E. Fork of Whitewater River on Main St. Brownsville, 16.670980.4392240. Only example of a Long truss bridge in Indiana. Dismantled in 1974 for reconstruction in Eagle Creek Park, Indianapolis. IN-27. 5 sheets showing site plan, plan, sections, elevations, structural details (1971); dismantling photos (1974) pending; ref.



Brownsville Covered Bridge being dismantled.

Cannelton—Perry County

CANNELTON (later INDIANA) COTTON MILLS, 1849–50

250 ft. SW of Fourth St. between Adams and Washington Sts. Cannelton, 16.522380.4195810. Became one of the largest producers of cotton sheeting in the Midwest. Designed by Thomas A. Tefft in a Lombard Romanesque style.



Cannelton Cotton Mills, showing the original smokestack (now destroyed).

IN-1. Field notes (1973); 8 sheets showing site plan, plans, sections, elevations, explanation of proportions (1973-74); 1 photocopy of architect's original drawing (c.1848); 1 photocopy of Hamilton Smith, the chief promoter (date unknown); 1 photocopy of aerial photograph (date unknown); 1 photocopy of ext. photograph (date unknown); photos (1974) pending; ref. NR.



Cannelton Cotton Mills: Southwest elevation as it appears today. Mike Boles and Roland David Schaaf, delineators.

CANNELTON COTTON MILLS: SUPERINTENDENT'S HOUSE, 1850–51

N. corner of Front and Washington Sts. Cannelton, 16.522280.4195660. The only one of numerous outbuildings which survives. IN-1A. Photos (1974) pending. NR.

INDIANA COTTON MILLS: WORKERS' HOUSING (A), 1855

NE side of Fourth St. between Washington and Taylor Sts. Cannelton, 16.522560.4195740. Believed to be housing constructed by the mill company after its reorganization in 1852. IN-1B. Photos (1974) pending.

INDIANA COTTON MILLS: WORKERS' HOUSING (B), 1855

SW side of Fifth St. between Washington and Taylor Sts. Cannelton, 16.522590.4195770. Similar to the housing on Fourth St. (above). IN-1C. Photos (1974) pending.

Clay City vicinity—Clay County

FEEDERDAM BRIDGE, 1894

Spanning Eel River just W. of State Rt. 59, 4 mi. N. of Clay City. Clay City, 16.490220.4353860. Double-intersection Pratt (Whipple) through-truss bridge, built by the C.F. Hunt Co., Indianapolis. IN-21. Photos (1974) pending.

Columbus—Bartholomew County

CEREALINE MANUFACTURING COMPANY: MILL A, c.1880

Between Jackson and Brown Sts. opposite Seventh St. Columbus, 16.592960.4339900. Produced an early cold breakfast cereal made from corn. IN–34. Field notes (1972); 2 sheets showing site plan, plans, sections, elevations (1972); photos (1974) pending; ref.

REEVES PULLEY COMPANY FACTORY, c.1890

S. side of Seventh St., E. of Wilson St. Columbus, 16.594110.4339940. Developed and produced a variable speed transmission using conical pulleys which holds a basic patent and is still manufactured virtually unchanged. IN-15. Field notes (1972); 1 sheet showing plan, sections, elevations (1972); 1 photocopy of artist's rendering (c.1910); photos (1974) pending; ref.

Connersville—Fayette County

CONNERSVILLE FURNITURE COMPANY FACTORY, 1882

E. side of Illinois Ave., 100 ft. N. of Mount St. Connersville, 16.659590.4390320. Operated until 1927. Partially demolished c.1962. IN-12. 1 photocopy of artist's rendering (1906); 1 photocopy of ext. photograph (1911); 2 photocopies of demolition photographs (c.1962); ref.

CONNERSVILLE INDUSTRIAL PARK, 1886+

Between 11th and 21st Sts., W. of Western Ave. Established on farmland owned by John B. McFarlan, who built a carriage factory and convinced his suppliers to build factories nearby. Site later used for the manufacture of automobiles by the Lexington Motor Company and Auburn Automobile Company. IN-7. 1 sheet showing site plan (1972); 1 photocopy of aerial photograph (1945); ref.

ANSTEAD-HIGGINS SPRING (later ANSTEAD SPRING AND AXLE) COMPANY FACTORY, 1891

Between Mount and 16th Sts., 200 ft. E. of Columbia Ave. Connersville, 16.659460.4390410. Built by the first of McFarlan's suppliers to be attracted to the industrial park. IN-9. 2 photocopies of artist's renderings (1906); ref.

CENTRAL MANUFACTURING COMPANY FACTORY, 1906, 1917

N. side of 18th St., 400 ft. W. of Western Ave. Connersville, 16.659550.4390930. Manufactured automobile bodies, first in wood, later in metal. IN-10. 1 photocopy of artist's rendering (1906); 1 photocopy of ext. photograph (1928); 1 photocopy of wooden auto bodies on assembly line (c.1906); ref.

CONNERSVILLE BLOWER COMPANY FACTORY, 1893

NW corner of Columbia Ave. and Mount St. Connersville, 16.659340.4390370. Built by a primary competitor of the P.H. and F.M. Roots Company. IN-13. 1 photocopy of artist's rendering (1906); 1 photocopy of ext. photograph (1911); ref.


Central Manufacturing Company: Assembly line of wooden automobile bodies, c.1906.

LEXINGTON MOTOR (later AUBURN AUTOMOBILE) COMPANY FACTORY, 1910+

N. side of 18th St. opposite Columbia Ave. Connersville, 16.659280.4390910. Heart of the huge automobile industry in Connersville until the mid-1930s; home of the classic Cord. IN-11. Field notes (1972); 4 sheets showing plans, elevations (1972); 5 photocopies of ext. photographs (1920, 1928, 1929, 1931, 1936); 13 photocopies of assembly line, storage, and shipping (1934); photos (1974) pending; ref.

McFARLAN CARRIAGE (later McFARLAN MOTOR CAR) COMPANY FACTORY, 1886

S. side of Mount St. opposite Columbia Ave. Connersville, 16.659410.4390230. Initial factory of the industrial park. Demolished 1938–39. IN–8. 1 photocopy of ext. photograph (1911); ref.

MUNK AND ROBERTS FURNITURE (later REX MANUFACTURING) COMPANY FACTORY, 1878+ E. side of Western Ave., 800 ft. N. of 12th St. Connersville, 16.659780.4390480. Buildings were used first for furniture manufacture, later for making carriages, then for automobile tops and enclosures. Destroyed 1973. IN-14. Field notes (1972); 3 sheets showing plans, sections, elevations (1972); 1 photocopy of artist's rendering (1906); ref.

P.H. AND F.M. ROOTS COMPANY FACTORY, 1864+ E. side of Eastern Ave. opposite First St. Connersville, 16.659580.4388850. Manufactured world-famous positive displacement rotary blowers. IN–3. Field notes (1973); 5 sheets showing site plan, plan, sections, elevations (1973); 3 'photocopies of rendered maps of Connersville (1856, 1875, 1888); 3 photocopies of artists' renderings (c.1885?, 1907, 1926); 2 photocopies of int. photographs (1880, 1890?); 4 photocopies of Roots blowers (1868, 2-1880, 1906); photos (1974) pending; ref.



P.H. and F. M. Roots Company: Erecting shop about 1890 (right), and 1906 invoice letterhead (below) illustrating the company's products.



Crawfordsville—Montgomery County

MONTGOMERY COUNTY JAIL, 1882

SW corner of Washington and Spring Sts. Crawfordsville, 16.508390.4432410. Contains a cylindrical iron cage structure which originally rotated on its central axis; cells are arranged on two levels like cuts of a pie. Oldest surviving example of a unique midwestern phenomenon in jail construction. IN-17. Photos (1974) pending; ref. NR.



Crawfordsville vicinity (Yountsville)—Montgomery County

YOUNT WOOLEN MILL, 1864

W. bank of Sugar Creek, 1000 ft. S. of State Rt. 32, 4 mi. W. of Crawfordsville. Crawfordsville, 16.502220.4430010. Only surviving structure of a small textile complex built by Daniel Yount. IN-18. Photos (1974) pending; ref.

Cutler vicinity (Adams Mill)—Carroll County

ADAMS MILL COVERED BRIDGE, 1873

Spanning Wildcat Creek on Rd. 50 E., 0.8 mi. NE of Cutler.



Montgomery County Jail: Two-level cage structure (above), and the central pivot seen in the basement (left).

Rossville, 16.541360.4481340. Howe trusses with added arches. IN-29. 5 sheets showing site plan, plan, sections, elevations, details (1974).

Gosport—Owen County

GOSPORT COVERED BRIDGE

Spanning White River 500 ft. E. of E. end of South St. Gosport, 16.529440.4355310. Originally three spans with Smith trusses; one span was replaced by a double-intersection Pratt (Whipple) through-truss. Demolished c.1949; bridge piers remain. IN-39. 1 photocopy of photograph (1913); ref.

NEW ALBANY AND SALEM (MONON) RAILROAD: GOSPORT PASSENGER AND FREIGHT STATION, c. 1854

E. end of North St. Gosport, 16.529380.4355450. Rare surviving example of an early through-station or "train barn." Passenger tracks pass in front; a freight track passes inside through the entire length. IN-4. Field notes (1973); 3 sheets showing site plan, plan, sections, elevations (1973); 2 photocopies of ext. photographs (1896?, 1913); photos (1974) pending; ref. NR.



Gosport Station from the south.





Gosport Station elevations (above). Roland David Schaaf, Sharon Washburn, and Daniel Vieyra, delineators. William Jennings Bryan (left) campaigning at the Gosport Station.





Indianapolis Market: Detail of column, capital, and roof trusses.

Indianapolis-Marion County

MARKET HOUSE (CITY MARKET), 1886

222 E. Market St.; N. side of Market St. between Delaware and Alabama Sts. Indianapolis West, 16.572510.4402220. Surviving example of a downtown 19th-century market still in use; notable for its elegant iron columns and roof trusses fabricated by Hetherington and Berner. IN-6. Field notes (1972); 6 sheets showing site plan, plan, sections, elevations, structural details (1972); photos (1974) pending; ref. NR, HABS.

Kokomo—Howard County

VERMONT COVERED BRIDGE, 1874

Spanning Kokomo Creek at W. end of Deffenbaugh St. in Highland Park. Kokomo West, 16.572740.4479990. Smith trusses; moved in 1958 from the town of Vermont in Howard County. IN-30. 5 sheets showing site plan, plan, sections, elevations, structural details (1971).

Liberty vicinity (Dunlapsville)—Union County

DUNLAPSVILLE COVERED BRIDGE, 1870

Spanning E. Fork of Whitewater River on Roseburg Rd., 4.5 mi. SW of Liberty. Fairfield, 16.672820.4383550. Burr arch trusses. Destroyed 1971. IN–31. 6 sheets showing site plan, plan, sections, elevations, structural details (1971).

Madison-Jefferson County

BEN SCHROEDER SADDLE TREE COMPANY FACTORY, c.1876

106 Milton St.; N. side of Milton St., 150 ft. W. of Jefferson St. Madison West, 16.640990.4289060. Rare and unusual family-operated factory with all machinery intact. IN-26. Field notes (1974–75); 3 sheets showing site plan, plan, section, elevation (1975); photos (1974) pending; ref. NR.

MADISON AND INDIANAPOLIS RAILROAD: MADISON INCLINE (MADISON CUT), 1841

Extending N. from Crooked Creek, 750 ft. W. of State Rt. 7. Starting point: Madison West, 16.639380.4289220. Climbed the hill above Madison for 7000 ft. at a 5.9% grade, thus linking one terminus of Indiana's first railroad with the rest of the line. IN-19. Photos (1974) pending. HABS.

Matthews—Grant County

CUMBERLAND COVERED BRIDGE, 1879

Spanning Mississinewa River on County Rd. 990 E. Hartford City West, 16.628610.4471760. Smith trusses. IN-32. 6 sheets showing site plan, plans, sections, elevations, structural details (1970).

Paoli—Orange County

GOSPEL STREET BRIDGE, 1890

Spanning Lick Creek on S. Gospel St. Paoli, 16.546310. 4267260. Pratt through-truss bridge, built by the Cleveland (Ohio) Bridge and Iron Co. IN-24. Photos (1974) pending.

Rochester vicinity—Fulton County

TIPPECANOE RIVER BRIDGE, 1890

Spanning Tippecanoe River just N. of State Rt. 25, 5 mi. NE of Rochester. Rochester, 16.569020.4552410. Modified Pratt through-truss bridge, built by the Indiana Bridge Co., Muncie. IN-25. Photos (1974) pending.

Vera Cruz—Wells County

WABASH RIVER BRIDGE, 1887

Spanning Wabash River on State Rt. 316. Linn Grove, 16.661960.4506850. Double-intersection Pratt (Whipple) through-truss bridge, built by the Indiana Bridge Co., Muncie. IN-22. Photos (1974) pending.

Vernon—Jennings County

MADISON AND INDIANAPOLIS RAILROAD: VERNON OVERPASS, c.1839

Crossing Pike St. at Gains St. Vernon, 16.620460.4315980. Single-span stone masonry barrel arch; part of the oldest segment of Indiana's first railroad. Earliest known railroad bridge in Indiana. IN-20. Photos (1974) pending.



Versailles vicinity—Ripley County

BUSCHING COVERED BRIDGE, 1885

Spanning Laughery Creek on Covered Bridge Rd., 0.7 mi. E. of Versailles. Milan, 16.652450.4325560. Howe trusses. IN-33. 3 sheets showing site plan, plan, sections, elevations, structural details (1973).

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Washington—Daviess County

OHIO AND MISSISSIPPI (later BALTIMORE AND OHIO) RAILROAD: WASHINGTON REPAIR SHOPS, 1889

W. end of Van Trees St. at 17th St. Washington, 16.482870.4278490. Served as a major repair center at the mid-point of the B&O line between Cincinnati and St. Louis. IN-5. Field notes (1973); 6 sheets showing site plan, plan, sections, elevations, section perspective, roof truss details (1973); 1 photocopy of site plan (1921); 1 photocopy of aerial photograph (c.1926); photos (1974) pending; ref.

West Baden—Orange County

WEST BADEN SPRINGS HOTEL, 1901-02

W. side of State Rt. 56. French Lick, 16.533250.4268590. Six-story structure notable for its 195-ft. diameter steel trussed dome surmounting a circular atrium surrounded by guest rooms. IN-2. Field notes (1973); 8 sheets showing site plan, plans, sections, elevations, truss details (1973-74); photos (1974) pending; ref. NR.

West Baden Springs Hotel: Section through the atrium and dome (left). Roland David Schaaf, delineator. View of the atrium (right).





Maine

Bath-Sagadahoc County

PERCY AND SMALL SHIPYARD, 1894

451 Washington St.; E. side of Washington St., 250 ft. S. of Marshall St. Bath (15 min.), 19.434400.4860230. Built wooden schooners until 1920. ME-1. 13 ext. photos (1971); 7 int. photos (1971); ref. NR.



Maryland

Baltimore—(independent city)

BALTIMORE AND OHIO RAILROAD: CAMDEN STATION, 1856, 1865 S. side of Camden St. between Eutaw and Howard Sts. Bal-

Percy and Small Shipyard: Carpenter shop. Sylvester Cobbs, photographer.

timore East, 18.360260.4349450. Principal B&O station in Baltimore until the construction of Mt. Royal Station. MD-7. Field notes (1970); 3 aerial photos (1970); 5 ext. photos (1970); 2 int. photos (1970); ref.

BALTIMORE AND OHIO RAILROAD: CARROLLTON VIADUCT, 1828–29

Spanning Gwynns Falls 0.5 mi. NW of Washington Blvd. Baltimore West, 18.357220.4348440. Single-span stone masonry barrel arch. Oldest railroad bridge in the U.S.; has been in continuous use since its construction, carrying ever-increasing loads. MD-9. 2 aerial photos (1970); 3 photos (1971); ref. NHL, NR.

BALTIMORE AND OHIO RAILROAD: MOUNT CLARE PASSENGER CAR SHOP, 1883–84

SW corner of Pratt and Poppleton Sts. Baltimore West, 18.359160.4349510. Unique 22-sided polygon, 235 ft. in diameter, with a sloping roof topped by a lantern and cupola. MD-6. Field notes (1970); 1 sheet showing elevation (1972); 1 stereopair (1970); 2 aerial photos (1970); 6 ext. photos (2-1970, 4-1971); 10 int. photos (1971); ref. NHL, NR.





Mount Clare Shops from the air (left); Passenger Car Shop (above).

BALTIMORE AND OHIO RAILROAD: MOUNT ROYAL STATION, 1894–96

W. side of Mt. Royal Ave. at Cathedral St. Baltimore East, 18.360300.4351690. Showpiece station of the B&O in its hometown. MD-10. 4 ext. photos (1971); 1 int. photo of roof structure (1971); ref. NR, HABS.

BALTIMORE AND OHIO RAILROAD: MOUNT ROYAL STATION TRAIN SHED, 1894–96

W. side of Mt. Royal Ave. at Cathedral St., just E. of Howard St. Baltimore East, 18.360280.4351740. One of eleven known long-span, trussed-roof train sheds surviving in the U.S. MD-29. 4 stereopairs (1970); 1 ext. photo (1971).



Mount Royal Station and Train Shed.

BALTIMORE AND OHIO RAILROAD: TOBACCO WAREHOUSE, 1880

NE side of Fort Ave., 500 ft. SE of Reynolds St. Baltimore East, 18.362960.4347470. Oldest surviving B&O structure on Locust Point. MD-20. 4 ext. photos (1970); ref.



North end of the Howard Street Tunnel, seen from beneath the Mount Royal Train Shed.

BALTIMORE BELT (later BALTIMORE AND OHIO) RAILROAD: HOWARD STREET TUNNEL, 1890–95

Under Howard St. between Camden Station (Camden St.) and Mt. Royal Station (Mt. Royal Ave.). End points: Baltimore East, 18.360330.4349480, 18.360260.4351660. Principal structure in the 8-mile link between the B&O main line and its Philadelphia Branch. MD-11. 3 ext. photos (1970, 2-1971); 3 int. photos (1970, 2-1971); ref. NR.

PENNSYLVANIA RAILROAD: CANTON COAL PIER, 1916–17

W. side of Clinton St., 300 ft. N. of Leland Ave. Baltimore East, 18.364490.4347130. Three traveling loaders and 62 cable-hauled dump cars transfer coal from railroad cars to ships and barges. MD-34. Photos (1974) pending.

PHILADELPHIA, WILMINGTON, AND BALTIMORE (later PENNSYLVANIA) RAILROAD: PRESIDENT STREET STATION, 1849–50

SE corner of President and Fleet Sts. Baltimore East, 18.361850.4349300. Oldest station with an adjacent train shed (which dates from the early 20th century) in the U.S. MD-8. Field notes (1974). HABS.

WIESSNER (AMERICAN) BREWERY, 1887

SE side of Gay St. between Federal and Lanvale Sts. Baltimore East, 18.363120.4352100. Unique example of Teutonic brewery architecture. MD-25. 6 stereopairs (1971); photos (1973) pending; ref. NR.



American Brewery dominating the skyline of its neighborhood (top), and a steam-driven compressor in the engine room (bottom).



Clear Spring vicinity—Washington County

CHESAPEAKE AND OHIO CANAL: MULE BARN

By Lock 50, mile 108.9 of the canal; 0.8 mi. S. of State Rt. 56, 3 mi. SW of Clear Spring. Hedgesville, 18.246760.4388830. Wooden shelter for animals that pulled canal boats. MD-28. Field notes (1974); 3 sheets showing site plan, plan, sections, elevations, details (1974). NR.

Cumberland—Allegany County

BALTIMORE AND OHIO RAILROAD: CUMBERLAND SHOPS

S. of Williams St., W. of Maryland Ave. Replaced the original Cumberland shop buildings during a post-Civil War B&O expansion. MD-2. 1 aerial photo (1970).

BALTIMORE AND OHIO RAILROAD: CUM-BERLAND BOLT AND FORGE SHOP, 1873

W. end of Spring St. Cumberland, 17.692350.4390760. Notable for its elegantly designed Fink roof trusses. MD-2B. Field notes (1970); 6 sheets showing site plan, plan, section, elevations, section perspective, roof truss details (1970); 5 ext. photos (2-1970, 3-1971); 5 int. photos (1971).

BALTIMORE AND OHIO RAILROAD: CUM-BERLAND RAIL ROLLING MILL, 1869–71

S. end of Elm St. Cumberland, 17.692380.4390640. Manufactured iron rails for the double tracking of the B&O main line from Cumberland to Grafton, W. Va., and for the extension to Chicago. Converted to the manufacture of small structural shapes after the introduction of steel rails. Partially demolished 1971. MD-2A. Field notes (1970); 4 sheets showing site plan, framing plan, section, section perspective (1970); 2 ext. photos (1970, 1971); 2 int. photos (1970); 5 int. photos of roof trusses (1971); ref.



Cumberland Rail Rolling Mill: Section perspective. Jeffery Jenkins, delineator.

BALTIMORE AND OHIO RAILROAD: QUEEN CITY HOTEL AND STATION, 1871–72

W. side of Park St. opposite Ann St. Cumberland, 17.692380.4391100. Monumental stopping place at a major division point of the B&O. Demolished 1971–72. MD-4. Field notes (1970); 1 sheet showing site plan (1970); 1 sheet showing section (1971); 4 stereopairs (1970); 2 aerial photos (1970); 10 ext. photos (7-1970, 3-1971); 11 int. photos (2-1970, 9-1971); 12 demolition photos (1971, 11-1972); ref.



Queen City Hotel and Station.





Demolition.

Cumberland vicinity (Eckhart Junction)—Allegany County

CUMBERLAND AND PENNSYLVANIA RAILROAD: WILLS CREEK VIADUCT, 1860

Spanning Wills Creek at Braddock Run, 1.8 mi. NW of Cumberland. Cumberland, 17.689540.4393320. Four spans of brick masonry segmental arches. MD-5. 1 aerial photo (1970): 4 photos (1970): ref.

Cumberland vicinity (North Branch)—Allegany County

CHESAPEAKE AND OHIO CANAL: LOCKHOUSE 75, c.1840

By Lock 75, mile 175.6 of the canal; 0.4 mi. W. of State Rt. 51, 4.7 mi. S. of Cumberland. Patterson Creek, 17.694020.4384140. Log structure of the type built during the last years of canal construction. MD-26. Field notes (1974); 1 sheet showing plan, elevations, log joint detail (1974). NR, HABS.

Dickerson vicinity—Montgomery County

CHESAPEAKE AND OHIO CANAL: CULVERT 65, 1832

Mile 39.65 of the canal; 0.2 mi. W. of Martinsburg Rd., 3.1 mi. SW of Dickerson. Poolesville, 18.286660.4340980. Because the culvert axis is skewed in relation to the axis of the canal above, stones comprising the barrel vault are laid at a constant angle to the base stones; thus individual courses appear to wrap around the interior of the vault like the stripes of a barber pole. MD-32. Field notes (1974); 2 sheets showing site plan, section, elevations (1974); ref. NR.

Ellicott City—Howard County

BALTIMORE AND OHIO RAILROAD: ELLICOTT'S MILLS (ELLICOTT CITY) STATION, 1831 S. side of State Rt. 144 on W. side of Patapsco River. Ellicott

City, 18.345120.4347770. One terminus of the B&O's first operational section; second oldest railroad station in the U.S. after Mt. Clare Station in Baltimore (1830). Recent archeological excavations have indicated that originally it functioned as both a freight station and car house. MD-13. Field notes (1970); 1 photocopy of woodcut (1858); 1 aerial photo (1970); 5 ext. photos (3-1970, 2-1971); 2 int. photos (1970); ref. NHL, NR.

Frederick—Frederick County

BALTIMORE AND OHIO RAILROAD: FREDERICK STATION, c.1870?

SE corner of Market and All Saints Sts. Frederick, 18.292410.4365020. MD-18. 2 ext. photos (1970); 1 int. photo (1970). NR.



Culvert 65. John Frondorf, delineator.

Gaithersburg vicinity—Montgomery County

BALTIMORE AND OHIO RAILROAD: WARING

VIADUCT, 1906

Spanning Great Seneca Creek 0.4 mi. SW of U.S. 270, 3 mi.

NW of Gaithersburg. Gaithersburg, 18.305740.4336590. Three stone masonry barrel arches. MD-22. 3 photos (1970).

Ilchester—Howard County

BALTIMORE AND OHIO RAILROAD: PATTERSON VIADUCT, 1829

W. bank of Patapsco River, 200 ft. S. of Ilchester Bridge. Ellicott City, 18.347740.4345800. One stone masonry segmental arch remains from the original four. MD-12. 1 photo (1970).

Ilchester vicinity (Thistle)—Baltimore County

BALTIMORE AND OHIO RAILROAD: ILCHESTER TUNNEL, 1903

E. side of Patapsco River running SE from Ilchester. NW portal: Ellicott City, 18.347820.4345820. Together with a Pratt through-truss bridge, replaced the remaining part of the Patterson Viaduct and a Bollman truss bridge when the B&O was realigned. MD-21. 1 ext. photo (1970).

Knoxville vicinity—Washington County (Harpers Ferry, W.Va., vicinity)

BALTIMORE AND OHIO RAILROAD: HARPERS FERRY BRIDGE PIERS, 1835–38, 1866

Across Potomac River between Maryland Heights and Harpers Ferry, just N. of mouth of Shenandoah River, 3.4 mi. W. of Knoxville. Harpers Ferry, 18.264870.4356020. Originally carried a wooden covered railroad bridge, then an elaborate 8-span Bollman truss bridge destroyed by a flood in 1936. MD-16. 1 aerial photo (1970); 3 photos (1970); ref.

BALTIMORE AND OHIO RAILROAD: HARPERS FERRY TUNNEL, 1893–94, 1931

N. bank of Potomac River opposite Harpers Ferry, 3.4 mi. W. of Knoxville. W. portal: Harpers Ferry,



Ilchester Tunnel: Northwest portal.

18.265000.4356100. Built as part of a project to reduce sharp curves approaching the bridge to Harpers Ferry. MD-17. 1 ext. photo (1970).

CHESAPEAKE AND OHIO CANAL: HARPERS FERRY COMPLEX

N. bank of Potomac River opposite Harpers Ferry, 3.3 mi. W. of Knoxville. Includes the remains of two canal locks with revetment walls and bypass flumes, a river lock, and a tavern. MD-27. Field notes (1974); 1 sheet showing site plan (1974); ref. NR, HABS.

CHESAPEAKE AND OHIO CANAL: LOCK 32, 1833

Mile 60.2 of the canal; 0.6 mi. W. of U.S. 340. Harpers Ferry, 18.265630.4356060. MD-27A. Field notes (1974); 1 sheet showing plan, section, elevations (1974). NR, HABS.

CHESAPEAKE AND OHIO CANAL: LOCK 33, 1833

Mile 60.7 of the canal; 1.1 mi. W. of U.S. 340. Harpers Ferry, 18.264920.4356170. MD-27B. Field notes (1974); 1 sheet showing site plan, site section (1974). NR, HABS.

CHESAPEAKE AND OHIO CANAL: SALTY DOG TAVERN

By Lock 33, mile 60.7 of the canal; 1.1 mi. W. of U.S. 340. Harpers Ferry, 18.264940.4356180. Existing unroofed stone walls were rebuilt after fires in the early 1960s. MD-27C. Field notes (1974); 1 sheet showing plan, elevations, details (1974). NR.

Little Orleans vicinity—Allegany County (Paw Paw, W.Va., vicinity)

CHESAPEAKE AND OHIO CANAL: LOCK 66 COMPLEX

In Tunnel Hollow approaching the C&O Canal Paw Paw Tunnel, 5.4 mi. SW of Little Orleans, 2.3 mi. N. of Paw Paw. Three locks constructed where four were planned originally, and numbered accordingly. Because of the poor quality of local stone, interior lock walls were lined with timber, some of which remains. MD–30. Field notes (1974); 1 sheet showing site plan (1974). NR.

CHESAPEAKE AND OHIO CANAL: LOCK 63 1/3, 1848–50

Mile 154.5 of the canal; 1.6 mi. N. of State Rt. 51. Paw Paw, 17.718660.4382540. MD–30A. Field notes (1974); 1 sheet showing plan, elevations (1974). NR.

CHESAPEAKE AND OHIO CANAL: LOCK 64 2/3, 1848–50

Mile 154.6 of the canal; 1.5 mi. N. of State Rt. 51. Paw Paw, 17.718540.4382400. MD–30B. Field notes (1974); 1 sheet showing plan, elevations (1974). NR.

CHESAPEAKE AND OHIO CANAL: LOCK 66, 1848–50

Mile 154.7 of the canal; 1.4 mi. N. of State Rt. 51. Paw Paw, 17.718420.4382280. MD-30C. Field notes (1974); 2 sheets showing plan, elevations (1974). NR.

Oldtown vicinity—Allegany County

CHESAPEAKE AND OHIO CANAL: TOWN CREEK AQUEDUCT, 1849

Mile 162.3 of the canal; spanning Town Creek 0.3 mi. SW of State Rt. 51, 3.8 mi. SE of Oldtown. Oldtown, 17.711080.4377530. Single-span stone masonry segmental arch. MD-31. Field notes (1974); 2 sheets showing plan, section, elevations (1974). NR, HABS.

Point of Rocks—Frederick County

BALTIMORE AND OHIO RAILROAD: POINT OF ROCKS STATION, 1875

200 ft. S. of State Rt. 28, 0.5 mi. E. of U.S. 15. Point of Rocks, 18.281450.4349960. Notable Victorian Gothic depot built at the junction of the B&O main line and the Washington Branch. MD-14. Field notes (1970); 7 sheets showing plans, sections, elevations, architectural details (1971); 1 aerial photo (1970); 8 ext. photos (3-1961, 5-1970); 5 int. photos (1970); ref. NR.

Point of Rocks vicinity—Frederick County

BALTIMORE AND OHIO RAILROAD: POINT OF ROCKS TUNNEL, 1866, 1902

0.9 mi. W. of State Rt. 464, 1.4 mi. NW of U.S. 15, 1.5 mi.





Point of Rocks Station: North elevation (left). Tim Wolosz, delineator. View from the west (right).



NW of Point of Rocks. Point of Rocks, 18.279420.4352380. Built to accommodate a second track on the narrow strip of land between Cotoctin Mt. and the C&O Canal. MD-15. 2 ext. photos (1971).

Potomac vicinity (Great Falls)—Montgomery County

CHESAPEAKE AND OHIO CANAL: LOCKHOUSE 18, 1830

By Lock 18, mile 14.1 of the canal; 0.5 mi. W. of Mac-Arthur Blvd., 1.5 mi. SW of Potomac. Falls Church, 18.305290.4318690. One of the original stone lockhouses on the canal. Burned c.1930; only ruins remain. MD–33. Field notes (1974); 2 sheets showing site plan, elevations (1974). NR.

Relay vicinity—Baltimore and Howard Counties

BALTIMORE AND OHIO RAILROAD: THOMAS VIADUCT, 1833–35

Spanning Patapsco River Valley 0.5 mi. NW of U.S. 1, 0.3 mi. SW of Relay. Relay, 18.352060.4342520. Eight spans of



Thomas Viaduct: Woodcut, c.1857 (left), and view from the northeast (right).



stone masonry elliptical arches on a four-degree curve; designed by Benjamin H. Latrobe, Jr. MD-3. 1 photocopy of woodcut (c.1857); 2 aerial photos (1970); 9 photos (8-1970, 1971); ref. NHL, NR.

Savage—Howard County

BALTIMORE AND OHIO RAILROAD: BOLLMAN SUSPENSION AND TRUSSED BRIDGE, 1869

Spanning Little Patuxent River just W. of Savage Rd. Savage, 18.342230.4333110. Only known surviving example of the Bollman patent truss in the world. MD-1. Field notes (1966); 7 sheets showing site plan, plans, section, elevations, structural details (1970); 2 stereopairs (1970); 1 aerial photo (1970); 9 photos (8-1970, 1971); ref. NR, NHCEL.

Sykesville—Carroll County

BALTIMORE AND OHIO RAILROAD: SYKESVILLE STATION, 1883

W. side of Main St. on N. bank of S. Branch of Patapsco River. Sykesville, 18.330320.4358840. MD-19. 1 ext. photo (1971).







Bollman Truss Bridge (top left and right), with detail of end abutment casting (bottom). Michael Masny, delineator.

Williamsport—Washington County

POTOMAC EDISON COMPANY: CHESAPEAKE AND OHIO CANAL BRIDGE, 1923

Spanning Chesapeake and Ohio Canal just S. of U.S. 11. Williamsport, 18.257270.4386910. Vertical lift bridge, built to carry a spur of the Western Maryland Railway to a Potomac Edison steam generating plant. End of canal operations made the lifting apparatus unnecessary soon after it was built. MD-23. Field notes (1974); 1 photo (1970).

SALISBURY STREET BRIDGE, 1879

Spanning Chesapeake and Ohio Canal connecting Salisbury St. and River Park Dr. Williamsport, 18.257290.4386850. Pony Pratt truss bridge; one of the few surviving bridges built by Wendel Bollman. MD-24. Field notes (1974); 2 sheets showing site plan, plan, elevations, connection details (1974); 1 photo (1970); ref.

Maryland / Massachusetts



Potomac Edison vertical lift bridge over the C&O Canal.

Massachusetts

Lawrence—Essex County

SOUTH CANAL BRIDGE, c.1860

Spanning South Canal 400 ft. NE of S. Broadway. Lawrence, 19.322760.4729580. Parabolic arch bridge, built by the Moseley Iron Building Works, Boston. MA-11. Field notes (1966); ref.

Lowell—Middlesex County

LOWELL CANAL SYSTEM, 1792–1848

S. of Merrimack River, W. of Concord River. Built by the Proprietors of the Locks and Canals on Merrimack River to supply water power to Lowell's textile mills. MA-1. 2 sheets showing historical plans (1975); 23 photocopies of various maps and drawings (1792–1933); ref.

Massachusetts



Lowell Canal System in 1860.

LOWELL CANAL SYSTEM: PAWTUCKET DAM, 1875

Crossing Merrimack River above Pawtucket Falls, just SW of School St. bridge. Lowell, 19.308800.4724230. Fifth in a succession of dams built at the same site to direct the waters of the Merrimack into the canal system. MA-1A. 1 photocopy of plan (1833); 3 photocopies of drawings (2-1875, 1923); 7 photocopies of construction photos (1875).



EASTERN CANAL, 1835

Between Pawtucket and Merrimack Canals, parallel to Bridge and Amory Sts. End points: Lowell, 19.310-660.4724110, 19.310760.4723670. Completed the second phase of the canal system as planned in 1825. MA-7. 1 photocopy of map (c.1825).

EASTERN CANAL: BOOTT DAM, 1878, 1892

200 ft. NE of intersection of Kirk and French Sts. Lowell, 19.310680.4724100. Replaced the original 1835 dam built to control the level of the canal. MA-7A. 1 photocopy of plan (c.1835); 1 photocopy of drawing (date unknown). Construction of the Pawtucket Dam in 1875.

Massachusetts

EASTERN CANAL: BOOTT PENSTOCK, 1906

Between Eastern and Merrimack Canals, 150 ft. NE of intersection of Kirk and French Sts. Lowell, 19.310660.4724080. Fifth in a succession of channels which supplied water to the Eastern Canal from the ' Merrimack Canal. MA-7B. 1 photocopy of plan (1906).

HAMILTON CANAL, 1825-26

Around the Swamp Locks of Pawtucket Canal, parallel to Jackson St. End points: Lowell, 19.310120.4723350, 19.310540.4723480. Began the second phase of canal construction as planned in 1825. MA-4. 1 photocopy of plan (c.1834).

HAMILTON CANAL: GUARD GATES, 1853

NW side of Jackson St. between King and Revere Sts. Lowell, 19.310180.4723340. Replaced the original gates built in 1847; allowed the canal to be drained separately from the rest of the system. MA-4A. 2 photocopies of drawings (1846, 1852).

HAMILTON CANAL: WASTEWAY GATEHOUSE, 1872

NW side of Jackson St., 200 ft. SW of Central St. Lowell, 19.310600.4723510. Replaced the original gatehouse built in 1850; gate operating equipment still exists. MA-4B. 1 photocopy of drawing (1903).

LAWRENCE CANAL: LAWRENCE DAM, c.1845

100 ft. E. of intersection of Suffolk and Perkins Sts. Lowell, 19.310300.4724450. Replaced the original dam built in 1831; maintained the water level of the canal. MA-6A. 2 photocopies of drawings (1913).

MERRIMACK CANAL: MERRIMACK DAM, 1835

100 ft. N. of intersection of Anne and French Sts. Lowell, 19.310570.4724130. Built, along with the Rolling Dam, to provide an intermediate level between the Merrimack and Eastern Canals so both could discharge through the Merrimack Wasteway. Demolished early 1960s. MA-3A. 4 photocopies of drawings (2-1836, 1877, 1918).

MERRIMACK CANAL: ROLLING DAM, 1835

150 ft. NE of intersection of Kirk and French Sts. Lowell, 19.310650.4724110. Built, along with the Merrimack Dam,

to provide an intermediate level between the Merrimack and Eastern Canals so both could discharge through the Merrimack Wasteway. MA-3B. 1 photocopy of drawing (c.1836?).

MOODY STREET FEEDER, 1848

Under Moody St. between Western Canal (E. of Suffolk St.) and Merrimack Canal (W. of Dutton St.). End points: Lowell, 19.310060.4724110, 19.310400.4723880. Three brickvaulted tunnels which increased the supply in the Merrimack and Eastern Canals by transporting water directly from the Northern Canal. MA-9. 1 photocopy of drawing (1841).

MOODY STREET FEEDER: GATEHOUSE, 1848

NE corner of Merrimack and Dutton Sts. Lowell, 19.310400.4723880. Manually operated equipment for the sluice gates survives. MA-9A. 6 photocopies of drawings (5-1848, 1884).

NORTHERN CANAL, 1846–47

Between Merrimack River and Western Canal, parallel to Pawtucket and Ford Sts. End points, Lowell: 19.308960.4724290, 19.310120.4724210. Built to satisfy demands for power made by increasingly large mills; supplemented the Pawtucket Canal as a feeder into the canal system. MA-8. 2 photocopies of maps (1839, 1846); 2 photocopies of plans (1847, 1855).

NORTHERN CANAL: GREAT RIVER WALL, 1846–47

N. side of the canal between Pawtucket Gatehouse and Pawtucket St. End points: Lowell, 19.308940.4724290, 19.309580.4724540. Retaining wall for the upper half of the canal, separating it from Merrimack River for 2200 ft. MA-8B. 12 photocopies of drawings (1-1846, other dates unknown).

NORTHERN CANAL: PAWTUCKET GATEHOUSE, 1847

SW side of School St. at Merrimack River. Lowell, 19.308940.4724260. Includes 10 sluice gates and a navigation lock. Most original equipment, including a Francis turbine, is intact. MA-8A. Field notes (1974); 7 sheets showing site plan, plans, sections, elevations (1975); 11 photocopies of drawings (6-1847, 2-1848, 1-1849, other dates unknown).

NORTHERN CANAL: WASTE GATES, 1847, 1872 In Great River Wall at NE side of Moody St. Lowell, 19.309500.4724520. Enabled the canal to be drained for repairs and for the removal of silt and rubbish. MA-8C. Field notes (1975); 5 sheets showing site plan, plans, sections, elevations (1975); 6 photocopies of drawings (2-1847, 2-1872, 2-1901).

PAWTUCKET CANAL, 1792-96, 1822-23

Between Merrimack and Concord Rivers around Pawtucket Falls. End points: Lowell, 19.308760.4724040, 19.310910.4723660. First and longest canal in Lowell; orig-



Guard Locks, showing the sluice gatehouse, navigation lock gatehouse, and Francis Gate. Leslie Ventsch, delineator. inally constructed only for transportation, later used as the original basis for the extensive power system. MA-2. 4 photocopies of plans (3-1824, 1855)

PAWTUCKET CANAL: GUARD LOCKS, 1832-1900

Across Pawtucket Canal 200 ft. N. of Broadway. Lowell, 19.309000.4723600. Site includes a sluice gatehouse (1870), naviation lock gatehouse (1881), and the Great Gate or Francis Gate (1848-50) used to prevent Lowell from flooding during times of extraordinarily high water on the Merrimack. MA-2A. Field notes (1974); 3 sheets showing plan, site sections (1974); 1 sheet showing site plan, elevations (1975); 12 photocopies of various plans and drawings (c.1832-1947).

PAWTUCKET CANAL: LOWER LOCKS, 1841-43

Across Pawtucket Canal 300 ft. E. of Central St. Lowell, 19.310830.4723640. Two navigation locks and a dam. MA-2C. Field notes (1974); 6 sheets showing site plan, plans, sections, elevations (1975); 2 photocopies of plans (1888, 1903?).

PAWTUCKET CANAL: SWAMP LOCKS, 1839-41 Junction of Pawtucket and Merrimack Canals, 300 ft. NW of end of Revere St. Lowell, 19.310160.4723440. Two navigation locks and a dam. MA–2B. Field notes (1975); 6 sheets showing site plan, plans, sections, elevations (1975); 1 photocopy of plan (c.1830); 3 photocopies of drawings (1840, 1890, other date unknown).

WESTERN CANAL, 1831-32

Between Merrimack Canal and Pawtucket River, parallel to Suffolk St. End points: Lowell, 19,310040.4723370, 19.310350.4724530. Built on two levels, thus enabling the same water to pass through more than one mill. MA-5. 2 photocopies of maps (c.1830, 1855); 2 photocopies of plans (1826, c.1833).

WESTERN CANAL: GUARD GATES, 1848

SW side of Moody St. between Suffolk and Hanover Sts. Lowell, 19.310030.4724080. In conjunction with other gates, allowed selected parts of the canal system to be drained. MA-5C. 1 photocopy of drawing (1847).

WESTERN CANAL: HICKEY HALL DAM, 1845

Intersection of Suffolk and Hall Sts. Lowell, 19.310220.4724350. Built to maintain the upper level of the canal before construction of the Northern Canal. MA-5A. 2 photocopies of drawings (1845, other date unknown).

WESTERN CANAL: TREMONT GATEHOUSE, 1855

120 ft. NE of intersection of Suffolk St. and French St. Extension. Lowell, 19.310130.4724220. Built to supply water to the Lawrence Canal directly from the Northern Canal, when necessary. MA-5B. 2 photocopies of drawings (1855).

New Bedford—Bristol County

BAKER (DELANO) OIL WORKS, c.1834+

S. side of South St. between First and Second Sts. New Bedford South, 19.339830.4609640. Last surviving example of a typical New Bedford whale oil refinery. Demolished 1973-74. MA-10. Field notes (1973); 5 ext. photos (1973); 6 int. photos (1973); ref.

New Jersey

Carteret—Middlesex County

ICHABOD T. WILLIAMS AND SONS MILL, 1922-25

E. side of Roosevelt Ave. opposite Carteret Ave. Arthur Kill, 18.566170.4491340. Large mill complex for the production of fine cabinet woods and veneers. NJ-28. Photos (1974) pending; ref.
Clifton—Passaic County

ERIE RAILWAY: CLIFTON STATION

Location unknown. NJ-21. 5 ext. photos (c.1910?).

Clinton—Hunterdon County

MAIN STREET BRIDGE, 1870

Spanning S. Branch of Raritan River on Main St. High Bridge, 18.507400.4498110. Two pony Pratt truss spans of cast and wrought iron, built by William Cowin. NJ-19. Field notes (1975); photos (1971) pending.

Clinton vicinity (Hamden)—Hunterdon County

FINK THROUGH-TRUSS BRIDGE, 1857

Spanning S. Branch of Raritan River on River Rd., 2.3 mi. S. of Clinton. Pittstown, 18.508240.4494580. Built by the Trenton Locomotive and Machine Manufacturing Co. The only known surviving Fink truss bridge in the world, and likely the oldest functioning metal truss bridge in the U.S. NJ-18. Field notes (1975); 1 photocopy of photograph (c.1950); 1 photocopy of bridge plate (1975); photos (1971) pending. NR.

Jersey City—Hudson County

CENTRAL RAILROAD OF NEW JERSEY: JERSEY CITY FERRY TERMINAL, 1889, 1914

W. bank of Hudson River at E. end of Johnston Ave. Jersey City, 18.581540.4506480. Depot for rail passengers crossing the Hudson River to and from New York City. NJ-27. Photos (1974) pending.

ERIE RAILWAY: BERGEN HILL OPEN CUT, c.1906-10

Running NW from Palisade Ave. to Tonnelle Ave. End points: Jersey City, 18.579940.4509140, 18.579040.4510230. Replaced the earlier (1856-61) Bergen Tunnel. NJ-22. 17 photos (1906).

ERIE RAILWAY: FERRYBOAT "SUSQUEHANNA," 1864

Transported rail passengers across the Hudson River between the Pavonia Ferry Terminal in Jersey City and the Chambers St. Ferry Terminal in New York. NJ-23. 2 ext. , photos (1906); 3 int. photos (1906).



ERIE RAILWAY: PIER 5 IMMIGRANTS' WAITING ROOM

Location unknown. Assembly place for immigrants beginning journeys to new homes after processing on Ellis Island (?). NJ-24. 1 ext. photo (1906); 2 int. photos (1906).

Mauricetown—Cumberland County

MAURICE RIVER BRIDGE, 1888, 1910

Spanning Maurice River on State Rt. 548. Port Elizabeth, 18.500720.4348280. Pratt through-truss bridge; center span pivots to allow river navigation. NJ-20. 20 photos (1970).



Ferryboat "Susquehanna" (right), and her crew (above), in 1906.



Pier 5 Immigrants' Waiting Room in 1906.



Newark—Essex County

ERIE RAILWAY: NEW YORK DIVISION, BRIDGE 8.04, 1871

Spanning Passaic River E. of intersection of Passaic and Gouverneur Sts. between Newark and East Newark, Hudson County. Orange, 18.570490.4511650. Pratt through-truss draw bridge; two spans rose in opposite directions toward a central tower. Demolished 1879. NJ-25A. 1 photocopy of photograph (1876).

ERIE RAILWAY: NEW YORK DIVISION, BRIDGE 8.04, c.1910

Same location as 1871 bridge above. Bascule trunnion lift bridge. Third bridge on the site; replaced a second draw bridge built 1879-80. NJ-25B. 1 photo (date unknown).

Paterson—Passaic County

GREAT FALLS/SOCIETY FOR ESTABLISHING USEFUL MANUFACTURES HISTORIC DISTRICT, 1791-1912

Vicinity of Passaic River below Great Falls. Site of the first planned industrial development in the U.S., originally encouraged by Alexander Hamilton. NJ-1. 5 sheets showing historical plans, site plans (1975); 1 photocopy of map (1835); 24 aerial photos (1973); 6 ext. photos (1971); ref. NHL, NR.

ALLIED TEXTILE PRINTERS PLANT

SE bank of Passaic River at Mill and Van Houten Sts. Paterson, 18.569100.4529630. Complex composed of several industrial buildings, including the remains of the original Colt gun factory (1836). NJ-17. 4 aerial photos (1973); 3 ext. photos (1971); ref. NHL, NR.

BARBOUR FLAX SPINNING COMPANY

NW of Grand St., SE of Morris St. American branch of a prosperous Irish linen thread company. NJ–11. 1 aerial photo (1973); ref. NHL, NR.

BARBOUR FLAX SPINNING COMPANY: GRANITE MILL, c.1881

W. corner of Grand and Morris Sts. Paterson, 18.569100.4528880. NJ-11A. 1 aerial photo (1973); 1 ext. photo (1971). NHL, NR.

BARBOUR FLAX SPINNING COMPANY: MACHINE SHOP, 1909

W. side of Morris St. at Barbour St. Paterson, 18. 569100.4528940. NJ-11C. 2 ext. photos (1971). NHL, NR.

BARBOUR FLAX SPINNING COMPANY: SPRUCE STREET MILL, c.1879

SW side of Spruce St. opposite Oliver St. Paterson, 18.569140.4529080. NJ-11B. 2 ext. photos (1971). NHL, NR.

DANFORTH (COOKE) LOCOMOTIVE AND MACHINE COMPANY

NW side of Market St., SW of Mill St. Second largest of Paterson's three locomotive manufacturers. NJ-8. 1 photocopy of woodcut (c.1850); 1 aerial photo (1973); 3 ext. photos (1971); ref. NHL, NR.

DANFORTH (COOKE) LOCOMOTIVE AND MACHINE COMPANY: BLACKSMITH SHOP, 1880–81

NW side of Market St., 90 ft. SW of Jersey St. Paterson, 18.569170.4529360. Destroyed 1974. NJ-8B. 1 ext. photo (1971).

DANFORTH (COOKE) LOCOMOTIVE AND MACHINE COMPANY: ERECTING SHOP, 1880–81

NW side of Market St. opposite Jersey St. Paterson, 18.569200.4529380. Destroyed 1974. NJ-8A. 1 ext. photo (1971).

DOLPHIN MANUFACTURING COMPANY FACTORY, c.1881

SW side of Spruce St., 100 ft. NW of Barbour St. Paterson, 18.569160.4529050. At one time the largest jute factory in the U.S. NJ-12. 2 aerial photos (1973); 1 ext. photo (1971); ref. NHL, NR.

ESSEX MILL, 1856, 1871-72

SW side of Mill St. between Ellison and Van Houten Sts. Paterson, 18.569180.4529600. Used for the production of mosquito netting. NJ-6. Field notes (1974); 3 sheets showing plan, elevation, section perspective (1974); 3 aerial photos (1973); ref. NHL, NR.

FRANKLIN MANUFACTURING COMPANY: WAVERLEY MILL, 1857

W. corner of Mill and Van Houten Sts. Paterson, 18.569160.4529660. Used for bleaching, dyeing, and print-



Essex Mill: East elevation. Typical title sheet to a set of HAER drawings. Toni Ristau and John Sanguiliano, delineators.



Grant Locomotive Works: Aerial view of salvage archeology trenches.

ing cotton cloth. NJ-7. 1 aerial photo (1973); 2 ext. photos (1971); ref. NHL, NR.

GODWIN (HAMIL) MILL: BOILER AND ENGINE HOUSE

N. corner of Mill and Market Sts. Paterson, 18.569240. 4529420. Supplied power to the Hamil Mill, which produced silk. NJ-14A. Field notes (1973); 1 ext. photo (1971). NHL, NR.

GRANT LOCOMOTIVE WORKS, 1851

NW side of Market St., NE of Spruce St. Paterson, 18.569120.4529340. Smallest of Paterson's three locomotive manufacturers. Destroyed 1974. NJ-9. 2 aerial photos (1973); 4 ext. photos (1971); ref.

INDUSTRY MILL, 1878-79

NW side of Van Houten St., 140 ft. SW of Prospect St. Paterson, 18.569390.4529790. Built for the production of both cotton and silk fabric. NJ-15. 1 ext. photo (1971); ref. NHL, NR.

IVANHOE MILL: WHEELHOUSE, c.1851

SW side of Spruce St., 170 ft. NW of Market St. Paterson, 18.569040.4529300. Only surviving part of a large paper manufacturing complex; housed a single vertical turbine. NJ-10. 1 aerial photo (1973); ref. NHL, NR.

PHOENIX MILL, c.1813, c.1827

NW wide of Van Houten St. opposite Cianci St. Paterson, 18.569330.4529750. Oldest mill in the Great Falls/S.U.M. Historic District; first used for cotton manufacture, then for silk production. NJ-4. Field notes (1973); 2 sheets showing plan, section, elevations (1973); 1 photocopy of insurance map (1905); 2 aerial photos (1973); 1 ext. photo (1971); ref. NHL, NR.

ROGERS LOCOMOTIVE AND MACHINE WORKS

Both sides of Spruce St. between Market and Oliver Sts. At its peak, probably the largest and most widely known company in Paterson. NJ–3. 1 sheet showing site plan (1973); 1 photocopy of insurance map (1906); 7 aerial photos (1973); 1 ext. photo (1971); ref. NHL, NR.



Phoenix Mill: South elevation. William Gavzy, delineator.

ROGERS LOCOMOTIVE AND MACHINE WORKS: ADMINISTRATION BUILDING, 1881 SW side of Spruce St., 80 ft. SE of Market St. Paterson, 18.569100.4529220. NJ–3D. Field notes (1973); 1 sheet showing plan, elevation (1973); 2 ext. photos (1971). NHL, NR.

ROGERS LOCOMOTIVE AND MACHINE WORKS: ERECTING SHOP, 1871

E. corner of Spruce and Market Sts. Paterson, 18.569130.4529230. NJ-3A. Field notes (1973); 3 sheets showing plan, sections, elevations (1973); 7 ext. photos (1971). NHL, NR.



Rogers Erecting Shop: Northwest and southwest elevations.

ROGERS LOCOMOTIVE AND MACHINE WORKS: FITTING SHOP, 1881

SW side of Spruce St. between Market and Oliver Sts. Paterson, 18.569100.4529180. NJ-3B. Field notes (1973); 2 sheets showing plan, section, elevation (1973); 4 ext. photos (1971). NHL, NR.

ROGERS LOCOMOTIVE AND MACHINE WORKS: MILLWRIGHT SHOP, 1879

SW side of Spruce St., 70 ft. NW of Oliver St. Paterson, 18.569130.4529120. NJ-3C. Field notes (1973); 2

sheets showing plan, sections, elevations (1973); 1 ext. photo (1971). NHL, NR.

SOCIETY FOR ESTABLISHING USEFUL MANU-FACTURES HYDROELECTRIC PLANT, 1912-14

N. side of McBride Ave. below Great Falls of the Passaic River. Paterson, 18.568930.4529450. Built to harness directly the water power of the Great Falls. NJ-16. 3 aerial photos (1973); 2 ext. photos (1971); 1 int. photo (1971); ref. NHL, NR.



SOCIETY FOR ESTABLISHING USEFUL MANU-FACTURES POWER CANAL SYSTEM, 1792-1846 SE side of passaic River below Great Falls. Designed originally by Pierre L'Enfant; provided water power to Paterson's factories and mills. NJ-2. Field notes (1973-74); 7 aerial photos (1973); 7 photos (1971); photos (1975) pending; ref. NHL, NR.

S.U.M. Hydroelectric Plant: Interior (left) and exterior (below).



S.U.M. Power Canal System: Drop from middle to lower raceway behind the Essex Mill.



TODD AND RAFFERTY MACHINE COMPANY FACTORY, c.1872

NW side of Van Houten St. opposite McGee Alley. Paterson, 18.569240.4529740. Produced textile manufacturing machinery. NJ-5. Field notes (1974); 3 sheets showing plans, section, elevation (1974); 1 aerial photo (1973); ref. 'NHL, NR.

UNION WORKS (ROSEN MILL), 1909

N. corner of Spruce and Market Sts. Paterson, 18.569090. 4529310. Used for silk production. NJ–13. 1 photocopy of insurance map (1917); 1 ext. photo (1971); ref. NHL, NR.

Phillipsburg—Warren County

MORRIS CANAL: DELAWARE RIVER PORTAL, c.1830

E. bank of Delaware River just N. of Central Railroad of N.J. bridge. Easton, 18.482940.4503920. Stone masonry arch marking the western end of a canal built to transport coal from the Lehigh Valley in Pa. to markets in N.J. and N.Y. NJ-29. 12 photos (1970); ref. NR.

Phillipsburg vicinity—Warren County

MORRIS CANAL: INCLINED PLANE 10 WEST, c.1830

W. side of Lopatcong Creek, 0.5 mi. N. of U.S. 22A, 1.7 mi. SE of Phillipsburg. Easton, 18.486240.4503580 (approx). One of 23 inclines along the canal; boats were hauled mechanically over land from one canal level to another in special cradles running on tracks. NJ-30. 1 photocopy of cradle drawing (1838); 2 photocopies of photographs (dates unknown); 3 photos (1970); ref. NR.

Stevenson's Sketch of the Uvil Engineering of North America.



Typical cradle used to carry canal boats up and down the inclines of the Morris Canal. Drawing from 1838.

Trenton-Mercer County

ANCHOR (later STANGL) POTTERY COMPANY FACTORY, c.1880

SE side of New York Ave., 500 ft. SW of Mulberry St. Trenton East, 18.521740.4454000. Belt-driven pressing and extruding machinery survives. NJ–26. 4 ext. photos (1973); 15 int. photos of machinery (1973).

Albany—Albany County

*HAWK STREET BRIDGE (HAWK STREET VIADUCT), 1889-90

Spanning Sheridan Ave. on Hawk St. between Elk St. and Clinton Ave. Albany, 18.602040.4723060. Steel viaduct, built by the Hilton Bridge Construction Co., Albany; first cantilever arch bridge in the U.S. Demolished 1970. NY-10. 1 photocopy of construction company letterhead (1895); 6 photos (1969); 3 demolition photos (1970); 5 data pages (1969).

*WHIPPLE CAST- AND WROUGHT-IRON BOWSTRING TRUSS BRIDGE, 1867, 1899

Spanning a ravine 400 ft. N. of Normans Kill, 900 ft. NW of Delaware Ave. Albany, 18.598300.4720840. Built by Simon DeGraff of Syracuse from the original design of Squire Whipple; one of seven known surviving Whipple bowstring truss bridges. NY-4. Field notes (1969); 4 sheets showing site plan, plan, section, elevations, connection details (1969); 1 sheet showing connection details (1972); 2 photocopies of Whipple patent arch truss design (1860); 1 photocopy of Squire Whipple (1888); 10 photos (1969); 14 data pages (1969-70). NR.

Astoria—Queens County

NEW YORK CONNECTING RAILROAD: HELL GATE BRIDGE, 1917 See New York—New York and Queens Counties.

Atlanta-Steuben County

DELAWARE, LACKAWANNA, AND WESTERN RAILROAD: ATLANTA PASSENGER AND



Whipple Bowstring Truss Bridge seen from the east.

FREIGHT STATION, 1882

SE corner of Main and Beecher Sts. Naples, 18.296440. 4713960. NY-58. 2 aerial photos (1971).

Avon—Livingston County

ERIE RAILWAY: AVON FREIGHT STATION

W. side of Rochester St., 400 ft. N. of U.S. 20. Rush, 18.275720.4754750. NY-53. 1 ext. photo (1972).

Whipple Bowstring Truss Bridge: Location plan and north elevation. David Bouse, delineator.



ERIE RAILWAY: AVON STATION

E. side of Railroad Ave., 250 ft. N. of U.S. 20. Rush, 18.275660.4754710. NY-52. 2 aerial photos (1971); 3 ext. photos (1972).

Batavia—Genesee County

BATAVIA GAS LIGHT COMPANY: GASHOLDER HOUSES, 1878, 1885?

150 ft. E. of Evans St., 250 ft. S. of Ellicott St. Batavia South, 17.729380.4763970. Typical enclosures commonly built around 19th-century gasholders throughout the Northeast. NY-41A-41B. 3 ext. photos (1972).

Batavia vicinity—Genesee County

LEHIGH VALLEY RAILROAD: ERIE RAILWAY BRIDGE

Spanning Erie-Lackawanna tracks 0.4 mi. W. of Fargo Rd., 0.3 mi. N. of State Rt. 5, 3 mi. E. of Batavia. Stafford, 17.734750.4763700. Baltimore through-truss bridge with offset piers. NY-51. 2 aerial photos (1971).

Belfast vicinity—Allegany County

ERIE RAILWAY: ALLEGANY DIVISION, BRIDGE 375.41 (GENESEE RIVER VIADUCT), 1906-08

Spanning Genesse River Valley 0.4 mi. NE of State Rt. 19, 1.2 mi. N. of Belfast. Angelica, 17.737060.4693460. Steel trestle. NY-43. 2 photocopies of photographs (c.1908, c.1910?); 7 aerial photos (1971).

Binghamton-Broome County

DELAWARE, LACKAWANNA, AND WESTERN RAILROAD: BINGHAMTON STATION

NE corner of Chenango and Lewis Sts. Binghamton West, 18.424910.4661450. NY-39. 3 ext. photos (c.1910?). HABS.

ERIE RAILWAY: BINGHAMTON FREIGHT STATION

E. side of Chanango St., 300 ft. N. of Lewis St. Binghamton West, 18.425000.4661490. NY-31. 3 ext. photos (c.1910?).



ERIE RAILWAY: BINGHAMTON STATION, c.1870 W. side of Chenango St., 300 ft. N. of Lewis St. Binghamton West, 18.424820.4661500. Demolished 1974. NY-30. 3 ext. photos (1971).

Boonville vicinity—Oneida County

BLACK RIVER CANAL: LOCKS 39-43, c.1850

S. side of State Rt. 46, 7.1 mi. S. of Boonville. Boonville, 18.470840.4805480. Five connecting locks; part of a feeder canal for the Erie Canal. NY-83. 7 photos (1970). NR.

Bridgehampton—Suffolk County

BEEBE WINDMILL, 1820, c.1911

E. side of Atlantic Ocean Rd., S. of Hildreth Rd. Sag Harbor, 18.727220.4534730. Octagonal smock windmill with an ogee or "Turk's head" cap. NY-67. 1 ext. photo (1974).

Transporting goods at the Binghamton Freight Station, c.1910.

Beebe Windmill. David Sharpe, photographer.



Bronx-Bronx County

INTERBOROUGH RAPID TRANSIT COMPANY: 149th STREET KIOSK, 1903

• NE corner of 149th St. and Melrose Ave. Central Park, 18.591260.4518710. Last surviving cast-iron IRT entrance kiosk. Destroyed 1971. NY-87. Field notes (1970).

INTERBOROUGH RAPID TRANSIT COMPANY: THIRD AVENUE ELEVATED RAILWAY, c.1895

Extending above Third Ave. between 149th St. and Bedford Park Blvd. End points: Central Park, 18.591220.4518660, 18.594040.4524410. One of the few remaining elevated railroads in New York City. Partially demolished 1974. NY-68. Photos (1974) pending.

Brooklyn—Kings County

EAST RIVER (BROOKLYN) BRIDGE, 1869-83 See New York—New York and Kings Counties.

PORT OF NEW YORK GRAIN ELEVATOR TERMINAL, 1922

800 ft. E. of S. end of Columbia St. Jersey City, 18.583950.4502300. Originally operated as part of the New York State Barge Canal System. NY-69. 1 ext. photo (1974).

PRATT INSTITUTE: POWER GENERATING PLANT, 1900

400 ft. E. of Hall St., 300 ft. N. of DeKalb Ave. Brooklyn, 18.587520.4504750. One of the oldest steam-operated electrical plants still in service in the U.S. NY-70. 2 int. photos (1974).

Buffalo—Erie County

BUFFALO GAS LIGHT COMPANY BUILDING, 1859

NW side of Genesee St., 100 ft. SW of Jackson St. Buffalo NW, 17.672900.4749980. Stone castellated exterior. NY-64. 2 aerial photos (1971).



Port of New York Grain Elevator Terminal. David Sharpe, photographer.

DELAWARE, LACKAWANNA, AND WESTERN RAILROAD: LACKAWANNA TERMINAL, 1917

E. bank of Buffalo River at S. end of Main St. Buffalo SE, 17.673360.4748810. Served both rail and boat passengers. Abandoned 1962. NY-63. 5 aerial photos (1971).

ERIE RAILWAY: EAST BUFFALO STATION

Location unknown. NY-71. 1 ext. photo (1913).

ERIE RAILWAY: KENSINGTON AVENUE STATION

Kensington Ave., 600 ft. W. of Parkridge Ave. Buffalo NE, 17.677590.4755580 (approx). NY-72. 1 ext. photo (1913).

ERIE RAILWAY: MAIN STREET STATION

Main St. at La Salle Ave. Buffalo NE, 17.677000.4757030 (approx). NY-73. 1 ext. photo (1913).

ERIE RAILWAY: WALDEN AVENUE STATION

Walden Ave., 150 ft. W. of Zelmer St. Buffalo NE, 17.678940. 4752450 (approx). NY-74. 1 ext. photo (1913).

Callicoon—Sullivan County

ERIE RAILWAY: CALLICOON PASSENGER AND FREIGHT STATION, 1897

NE side of Main St., 200 ft. SE of Bridge St. Callicoon, 18.495180.4623620. NY-65. 1 ext. photo (1971).

Cohoes—Albany County

*COHOES COMPANY POWER CANAL SYSTEM: HEADGATE HOUSE, 1866

SW bank of Mohawk River at E. end of Fonda Rd. Troy North, 18.605100.4738640. Built along with a stone masonry river dam during a major expansion of the canal system. NY-8. 1 photocopy of ext. photograph (1866); 2 photocopies of int. photographs (1890, other date unknown); 1 ext. photo (1971); 4 data pages (1970).

*COHOES COMPANY POWER CANAL SYSTEM: LEVEL 2, c.1843

Extending NW and SE from Vliet St. parallel to N. Mohawk St. End points: Troy North, 18.605830.4737140, 18.606040.4736900. Supplied water power to the mills of the Harmony Manufacturing Company. NY-9. 5 photos (1969); 15 data pages (1969).

*ERIE CANAL, ENLARGED: LOCK 18 (DOUBLE LOCKS), 1837-42

W. of N. Mohawk St., E. of Reservoir St., 600 ft. S. of Manor Ave. Troy North, 18.605350.4737570. Part of a project to reduce the number of locks between Albany and Schenectady, thus making navigation easier and the canal more competitive with railroads. NY-11. 4 photocopies of map and profile (1851); 1 photocopy of map (1853); 6 photos (1969); 15 data pages (1969). NR, NHCEL.

*HARMONY MANUFACTURING COMPANY: MILL 3 (MASTODON MILL), 1866–68, 1871–72

NE side of N. Mohawk St. extending NW from Vliet St. Troy North, 18.605880.4737180. Architecturally elaborate component of a large textile manufacturing company; contains two 102-inch Boyden hydraulic turbines. NY-5. 1 stereopair (1971); 3 photocopies of plans, section, elevations (1873); 2 photocopies of turbine drawings (1876); 7 ext. photos (1969); 10 int. photos (1969); 11 data pages (1969). NR, NHMEL (turbines).



Level 2 of the Cohoes Company Power Canal System, with the Mastodon Mill in the background.

Mastodon Mill: Southwest elevation (left), and Boyden turbine, with governor (right).





Corning ---Steuben County

ERIE RAILWAY: CORNING STATION, 1859

NW corner of Erie Ave. and Pine St. Corning, 18.330150. 4667470. Demolished 1952. NY-76. 4 photos (c.1900?).

Corning vicinity—Steuben County

ERIE RAILWAY: CORNING SIDE HILL CUT

E. bank of Chemung River at mouth of Post Creek, 0.9 mi. E. of Corning. Corning, 18.331730.4667800. NY-35. 2 aerial photos (1971).

Dayton—Cattaraugus County

ERIE RAILWAY: DAYTON TUNNEL

250 ft. E. of Allen St., 600 ft. NE of Rice Rd. Gowanda, 17.666520.4698270. NY-46. 6 aerial photos (1971).

Deposit—Broome County

DEPOSIT LUMBER COMPANY MILL

SW side of Borden St., 300 ft. SE of Front St. Deposit, 18.464180.4655860. NY-75. 2 aerial photos (1971).

ERIE RAILWAY: DEPOSIT STATION, 1861

SE side of Front St. opposite Allen St. Deposit, 18.464440.4656200. NY-26. 3 aerial photos (1971); 5 ext. photos (1971); 2 int. photos (1971).

ERIE RAILWAY: OQUAGA CREEK BRIDGE

Spanning Oquaga Creek 200 ft. S. of State Rt. 17, 0.7 mi. SW of Borden St. Deposit, 18.463340.4655330. Multipleintersection (lattice) through-truss bridge built on a skew. NY-27. 2 aerial photos (1971); 2 photos (1971).

Deposit—Delaware County

ERIE RAILWAY: DELAWARE DIVISION, BRIDGE 175.53, 1903

Spanning W. branch of Delaware River 900 ft. S. of Front St., 1000 ft. N. of State Rt. 17. Deposit, 18.465120.4656160. Multiple-intersection (lattice) through-truss bridge. NY–28. 2 aerial photos (1971); 2 photos (1933).

Dobbs Ferry—Westchester County

OLD CROTON AQUEDUCT: MAINTENANCE BUILDING, c.1845

N. side of Walnut St., 150 ft. W. of U.S. 9. Nyack, 18.594430.4540460. Used for storage and for repair work in maintaining neighboring portions of the aqueduct. NY-116. Field notes (1975); 1 sheet showing plans, elevations (1975). NR, NHCEL.

OLD CROTON AQUEDUCT: OVERSEER'S HOUSE, c.1845

S. side of Walnut St., 150 ft. W. of U.S. 9. Nyack, 18.594420.4540420. Residence of the man employed to maintain neighboring portions of the aqueduct. NY-115. Field notes (1975); 2 sheets showing site plan, plans, elevations (1975). NR, NHCEL.

Dunkirk—Chautauqua County

AMERICAN LOCOMOTIVE COMPANY FOUNDRY, c.1905

NE side of Roberts Rd. opposite Courtney St. Dunkirk, 17.638410.4704940. NY-40. 1 ext. photo (1972).

COMBINED RAILROAD RIGHT-OF-WAY

Between Middle and Brigham Rds. parallel to Third St. End points: Dunkirk, 17.635920.4704480, 17.639200. 4705360. NY-77. 4 photos (1972).

ERIE RAILWAY: CENTRAL AVENUE PIER

SE shore of Lake Erie at N. end of Central Ave. Dunkirk, 17.636720.4705220. NY-78.3 photos (1972).

East Hampton—Suffolk County

HOOK WINDMILL, 1806

Intersection of Main St. and State Rt. 27. East Hampton, 18.736990.4538560. Octagonal smock windmill with a boat-shaped cap and complete surviving milling machin-

ery. NY-105. Field notes (1975); 6 sheets showing site plan, plans, section, elevations, structural isometric, machinery isometric (1975); 4 ext. photos (1975); 12 int. photos (1975); ref.

East Randolph vicinity (Napoli)—Cattaraugus County

GLADDEN WIND TURBINE, 1890-91

200 ft. N. of Pigeon Valley Rd., 0.4 mi. W. of Farm Market Rd., 7 mi. NE of East Randolph. Randolph, 17.673660. 4677820. Windmill originally composed of a vertical drum with vanes projecting at an angle from its periphery. Adjustable exterior shutters directed wind against the vanes. NY-82. Field notes (1973); 3 sheets showing site plan, plans, section, elevations (1975); ref. NR.

Elmira—Chemung County

ELMIRA ROLLING MILL, 1861

Between Hatch and State Sts., 300 ft. NW of Fifth St. Elmira, 18.350440.4662040. NY-25. 2 aerial photos (1971).

ERIE RAILWAY: ELMIRA STATION, 1867

NE side of Railroad Ave. between Third and Clinton Sts. Elmira, 18.350420.4661560. NY-36. 2 aerial photos (1971).

Fillmore vicinity—Allegany County

ERIE RAILWAY: ALLEGANY DIVISION, BRIDGE 367.33 (RUSH CREEK VIADUCT), 1906-08

Spanning Rush Creek Valley and Botsford Hollow Rd., 1.8 mi. SE of Fillmore. Fillmore, 17.739690.4703640. Steel trestle. NY-42. 4 aerial photos (1971).

Fort Hunter—Montgomery County

*ERIE CANAL, ENLARGED: LOCK 29 (EMPIRE

LOCK), 1841, 1885

0.4 mi. NE of intersection of Main and Church Sts., 0.2 mi. NW of Queen Ann St. Tribes Hill, 18.559320.4754920 (approx). Replaced the original Lock 20, which survives alongside. NY-17. 4 photos (1969); 1 data page (1970). NHL, NR, NHCEL.

*ERIE CANAL, ENLARGED: SCHOHARIE CREEK AQUEDUCT, 1839-41

Spanning Schoharie Creek opposite intersection of Main and Schoharie Sts. Tribes Hill, 18.558180.4754080. One of the major aqueducts of the enlarged canal. Partially demolished c.1915; nine of the original fourteen stone masonry segmental arches remain. NY-6. Field notes (1969); 3 sheets showing site plan, plan, sections, elevations (1969); 3 photocopies of maps (1834, 1853, 1962); 27 photos (1969); 9 data pages (1969-70). NHL, NR, NHCEL.



 $Schoharie\,Creek\,Aqueduct;\,West\,elevation.$

Fort Hunter vicinity—Montgomery County

*ERIE CANAL, ENLARGED: LOCK 28 (YANKEE HILL LOCK), 1841

100 ft. N. of Queen Ann St., 2.5 mi. NE of Fort Hunter. Amsterdam, 18.562140.4755640. Typical stone masonry canal lock. NY-16. 4 photos (1969); 1 data page (1970). NHL, NR, NHCEL.

Goshen—Orange County

ERIE RAILWAY: GOSHEN STATION, 1867

SW side of Grand St. opposite Erie St. Goshen, 18.556240. 4583410, NY-55. Field notes (1971); 4 ext. photos (1971); 1 • int. photo (1971).

Green Island—Albany County

***RENSSELAER AND SARATOGA (later DELAWARE** AND HUDSON) RAILROAD: GREEN ISLAND **REPAIR SHOPS**, 1871-72

400 ft. W. of Hudson River, 500 ft. N. of Tibbitts Ave. Troy





North, 18.607050.4733720. Used for heavy repairs and for rebuilding steam locomotives. NY-15. 11 ext. photos (1969); 4 int. photos (1970); 7 data pages (1969). NR.

Hancock—Delaware County

ERIE RAILWAY: HANCOCK FREIGHT STATION

SE corner of Front and Leonard Sts. Hancock, 18.476460.4644500. NY-48. 1 aerial photo (1971); 2 ext. photos (1971).

ERIE RAILWAY: HANCOCK STATION, 1846

S. side of Front St., 200 ft. E. of Leonard St. Hancock, 18.476490.4644500. NY-47. 2 aerial photos (1971); 2 ext. photos (1971); ref.

NEW YORK, ONTARIO, AND WESTERN RAILROAD: DELAWARE RIVER BRIDGE

Spanning Delaware River and W. Martin St., 0.2 mi. W. of Sands Creek Rd., between Hancock and Wayne County, Pa. Hancock, 18.475200.4644540. Abandoned Pratt deck truss bridge, enclosed and adaptively reused as a restaurant in 1973. NY-66. 2 photos (1971).

Hancock vicinity (Lordville)—Delaware County

DELAWARE RIVER BRIDGE

Spanning Delaware River off Warren Rd. opposite Lordville Rd., between Lordville and Wayne County, Pa., 8 mi. SE of Hancock. Long Eddy, 18.482220.4634900. Suspension bridge. NY-79. 1 photo (1971).

Hastings-on-Hudson—Westchester County

OLD CROTON AQUEDUCT: QUARRY RAILROAD BRIDGE, 1838-39

300 ft. E. of Warburton Ave., 250 ft. S. of Aqueduct La. Yonkers, 18.594000.4538020. Stone masonry segmental arch which originally carried the aqueduct over a small

railroad serving a marble quarry. NY-117. Field notes (1975); 2 sheets showing plan, section, elevation (1975). NR, NHCEL.

Hornell-Steuben County

ERIE RAILWAY: HORNELL ERECTING SHOP, 1923 W. Bank of Canisteo River, NE of Cedar St. Extension. Hornell, 18.281480.4687920. NY-34. 3 aerial photos (1971).



Hornell Erecting Shop.

ERIE RAILWAY: HORNELL STATION

SW side of Loder St. between Erie Ave. and Jane St. Hornell, 18.280870.4688660. NY-33. 2 aerial photos (1971).

Horseheads—Chemung County

ERIE RAILWAY AND PENNSYLVANIA RAILROAD: HORSEHEADS INTERLOCKING TOWER

900 ft. E. of State Rt. 328, 0.4 mi. S. of W. end of Chemung St. Horseheads, 18.348720.4667930. NY-32. 3 aerial photos (1971).

Irvington—Westchester County

OLD CROTON AQUEDUCT: JEWELLS BROOK CULVERT, 1838–39

Spanning Station Rd. 500 ft. W. of U.S. 9. White Plains, 18.595180.4543140. A 9-ft. high stone masonry culvert and a 15-ft. high stone masonry roadway arch through the base of a 64-ft. high embankment which crosses the Jewells Brook Valley. NY-114. Field notes (1975); 4 sheets showing plan, section, elevations, isometric (1975). NR, NHCEL.

Jackson Heights-Queens County

NEW YORK MUNICIPAL (LA GUARDIA) AIRPORT: MARINE AIR TERMINAL, 1939

S. end of Bowery Bay opposite N. end of 85th St., 0.4 mi. N. of Grand Central Pkwy. Central Park, 18.593990. 4513990. Smaller version of the original art deco land terminal. NY-89. 1 ext. photo (1974).

Jamestown Station: North elevation.

Jamestown—Chautauqua County

ERIE RAILWAY: JAMESTOWN STATION, 1931

S. side of Second St. opposite Lafayette St. Jamestown, 17.645160.4661560. NY-59. 3 ext. photos (1972).



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Lawtons vicinity—Erie County

ERIE RAILWAY: CLEAR CREEK VIADUCT

Spanning N. Branch of Clear Creek 300 ft. E. of U.S. 62, 1.1 mi. S. of Lawtons. North Collins, 17.669900.4709570. Steel trestle. NY-29. 4 aerial photos (1971).

Limestone vicinity—Cattaraugus County

BALTIMORE AND OHIO RAILROAD: RIVERSIDE JUNCTION INTERLOCKING TOWER

400 ft. S. of Allegheny River, 0.3 mi. W. of U.S. 219, 3.8 mi. N. of Limestone. Limestone, 17.695040.4661180. NY-45. 3 aerial photos (1971).

BALTIMORE AND OHIO RAILROAD AND ERIE RAILWAY: ALLEGHENY RIVER BRIDGES

Spanning Allegheny River 0.4 mi. W. of U.S. 219, 3.9 mi. N. of Limestone. Limestone, 17.694990.4661340. Parallel Pratt through-truss bridges. NY-44A-44B. 2 aerial photos (1971).

Lloyd Harbor—Suffolk County

VAN WYCK (LEFFERTS) TIDE MILL, c.1795

S. bank of Huntington Harbor, 1100 ft. NE of Southdown Rd. Lloyd Harbor, 18.630980.4528590. A flour mill which derived power from letting out at low tide the water impounded at high tide; much original machinery survives. NY-106. Field notes (1975); 8 sheets showing site plan, plans, sections, elevations, structural isometric, machinery isometric (1975); 2 photocopies of ext. photographs (1903); 2 ext. photos (1975); 14 int. photos (1975); ref.

Lockport—Niagara County

NEW YORK CENTRAL RAILROAD: LOCKPORT STATION, 1888

New York



Lefferts Tide Mill: Isometric of primary machinery. Kathleen Hoeft, delineator.

NE corner of Washburn and Union Sts. Lockport, 17.688130.4782520. Destroyed 1974. NY-60. 4 aerial photos (1971).

NEW YORK STATE BARGE CANAL: LOCKPORT LOCKS, 1909

Parallel to Richmond Ave. at Lock St. Lockport, 17.687500.4782150. Two electric-powered lift locks which replaced a flight of five consecutive gravity locks when the enlarged Erie Canal was incorporated into the Barge Canal. A second flight of five locks (1859), now used to channel water around the barge canal locks, survives alongside. NY-61. 3 aerial photos (1971). NR, NHCEL.



Lockport Locks of the New York State Barge Canal.

Long Island City—Queens County

AMERICAN CHICLE COMPANY FACTORY, 1920

S. side of Thomson Ave. between 30th Pl. and 31st St. Brooklyn, 18.589800.4510740. Art deco chewing gum factory. NY-80. 1 ext. photo (1974).

BLACKWELL'S ISLAND (QUEENSBORO) BRIDGE, 1901-09

See New York-New York and Queens Counties.

Manhasset---Nassau County

GREAT NECK AND PORT WASHINGTON RAILROAD: MANHASSET (COW'S NECK) VIADUCT, 1898

S. end of Manhasset Bay, E. of Manhasset Shore Rd. Sea Cliff, 18.608840.4516320. Steel trestle; part of the last major section of the present Long Island Railroad to be completed. NY-81. 1 photo (1974).

Middletown—Orange County

ERIE RAILWAY: MIDDLETOWN STATION, 1881 NW side of James St., 300 ft. SW of North St. Middletown, 18.548360.4588320. NY-56. 5 ext. photos (1971); 3 int. photos (1971).

Minisink Ford—Sullivan County

*DELAWARE AND HUDSON CANAL: DELAWARE AQUEDUCT, 1847–48 See Lackawaxen, Pennsylvania.

New York—New York County

CITY PIER A, 1885–86, 1900

E. bank of Hudson River at W. end of Battery Pl. Jersey City, 18.582920.4506190. Built to house the city Department of Docks and the Department of Harbor Police. NY-84. 4 ext. photos (1974); 6 int. photos (1974); ref. NR.



Middletown Station: Waiting room.

 $City {\it Pier} A from the west. Steven Zane, \\ photographer.$



*COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART, 1853–59, 1885

Bounded by Third and Fourth Aves., Astor Pl., and Seventh St. Brooklyn, 18.585220.4509000. Originally built using iron railroad rails adapted as structural beams, thus anticipating skeleton construction; contained an early elevator shaft and ventilating system. Gutted and extensively remodeled 1972-74. NY-20. 20 sheets showing site plan, plans, sections, elevations, section perspectives, structural and ventilating system details (1971); 2 photocopies of ext. drawings (1871, 1885); 5 photocopies of int. woodcuts (1878); 9 ext. photos (1972); 16 int. photos (1972); 67 data pages (1971-73). NHL, NR.

Chambers Street Ferry Terminal in 1906.



ERIE RAILWAY: CHAMBERS STREET FERRY TERMINAL, c.1861

E. bank of Hudson River at W. end of Chambers St. Jersey City, 18.583260.4507620. Depot for rail passengers crossing the Hudson River to and from the Pavonia Ferry Terminal in Jersey City, N.J. Demolished. NY-85. 3 ext. photos (1906); 2 int. photos (1906).

ERIE RAILWAY: TWENTY-THIRD STREET FERRY TERMINAL, c.1868

E. bank of Hudson River at W. end of 23rd St. Jersey City, 18.583620.4511220. Same as Chambers St. terminal above. Demolished. NY-86. 7 ext. photos (1906).

Twenty-third Street Ferry Terminal in 1906.





Harlem Fire Watchtower. Steven Zane, photographer.



HARLEM FIRE WATCHTOWER, 1856

350 ft. W. of Madison Ave., 400 ft. N. of 120th St., in Marcus Garvey (formerly Mt. Morris) Park. Central Park, 18.589070.4517330. Cast-iron lookout tower with a large bell to alert volunteer firemen; third such tower built in New York City, and the only one that survives. Built by Julius Kroehl from a design of James Bogardus, who built the other two. NY-104. Field notes (1975); 13 photos (1975); ref. NR.

WHITEHALL STREET (GOVERNORS ISLAND) FERRY TERMINAL, 1908

N. bank of East River between Whitehall and Broad Sts. Jersey City, 18.583460.4505810. Last surviving grand ferry terminal on lower Manhattan. NY-90. 8 ext. photos (1974); 2 int. photos (1974).

New York—New York and Bronx Counties

OLD CROTON AQUEDUCT: AQUEDUCT (HIGH) BRIDGE, 1839-48, 1923

Spanning Harlem River 0.2 mi. S. of Cross Bronx Expy. Central Park, 18.590220.4521580. Most impressive struc-

Governors Island Ferry Terminal from the south. Steven Zane, photographer.

ture of the 41-mile aqueduct that gave New York City its first adequate water supply. Stone masonry arch aqueduct with a single steel arch that replaced the original river arches to improve navigation. NY-119. 3 photocopies of drawings (1846); 2 photos (1975). NR, NHCEL.

New York—New York and Kings Counties

EAST RIVER (BROOKLYN) BRIDGE, 1869-83

Spanning East River between Park Row, Manhattan, and Adams St., Brooklyn. Brooklyn, 18.584720.4506400. The quintessential 19th-century American suspension bridge. Designed by John Roebling; built by his son Washington. NY-18. 1 photo (1974); ref. NHL, NR, NHCEL.

New York—New York and Queens Counties

BLACKWELL'S ISLAND (QUEENSBORO) BRIDGE, 1901–09

Spanning East River between Second Ave., Manhattan, and Northern Blvd., Long Island City. Central Park,

New York

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18.588200.4512080. Incorporated the longest cantilever span in the U.S. when built; designed by Gustav Lindenthal for unusually heavy loads. NY–19. 4 photos (1970).

NEW YORK CONNECTING RAILROAD: HELL GATE BRIDGE, 1917

Spanning East River between Wards Island and Astoria. Central Park, 18.590920.4514960. First and only rail link between New England and the rest of the East Coast via New York's Pennsylvania Station; steel arch through-truss bridge designed by Gustav Lindenthal. NY-88. 1 photo (1974).

Niagara Falls—Niagara County

ERIE RAILWAY: LA SALLE STATION

Location unknown. NY-92. 1 ext. photo (1913).

ERIE RAILWAY: NIAGARA FALLS STATION

Location unknown. NY-91. 1 ext. photo (1913).

North Tarrytown—Westchester County

OLD CROTON AQUEDUCT: MILL RIVER CULVERT, 1838-41

NE corner of Sleepy Hollow Cemetery, 1200 ft. E. of U.S. 9. White Plains, 18.595970.4550190. A 32-ft. high stone masonry culvert through the base of an 84-ft. high embankment which crosses the Mill River Valley. NY-112. Field notes (1975); 3 sheets showing plan, section, elevations (1975). NR, NHCEL.

OLD CROTON AQUEDUCT: MILL RIVER CULVERT WASTE WEIR, 1840

NE corner of Sleepy Hollow Cemetery, 1000 ft. E. of U.S. 9. White Plains, 18.595910.4550290. One of the larger weirs used to regulate the flow of water in the aqueduct, and to drain sections for inspection and repair. NY-113. Field notes (1975); 3 sheets showing plans, section, elevation (1975). NR, NHCEL.
North Tonawanda—Niagara County

ERIE RAILWAY: NORTH TONAWANDA STATION Location unknown. NY-94. 1 ext. photo (1913).

North Tonawanda vicinity (Martinsville)-Niagara County

ERIE RAILWAY: SAWYER CREEK BRIDGE

Spanning Sawyer Creek on N. side of U.S. 62 opposite State Rt. 425, 2.7 mi. NE of North Tonawanda. Tonawanda East, 17.676120.4769410. Pratt through-truss bridge. NY-95. 1 aerial photo (1971).

Nyack—Rockland County

ERIE RAILWAY: NYACK STATION, c.1882

W. side of Railroad Ave., 200 ft. S. of Cedar Hill Ave. Nyack, 18.590550.4548780. Demolished 1968. NY-96. 3 ext. photos (1916).

Ossining—Westchester County

OLD CROTON AQUEDUCT: OSSINING NORTH WASTE WEIR, c.1840

300 ft. W. of Snowden Ave., 400 ft. SW of U.S. 9. Ossining, 18.595140.4557950. One of the smaller weirs used to regulate the flow of water in the aqueduct, and to drain sections for inspection and repair. NY-109. Field notes (1975); 2 sheets showing plan, section, elevation (1975). NR, NHCEL.

OLD CROTON AQUEDUCT: SING SING KILL BRIDGE, 1837-39

Spanning Aqueduct St. and Broadway, 450 ft. W. of U.S. 9. Ossining, 18.595320.4557300. Solid stone masonry aqueduct with two roadway arches and a smaller pedestrian arch penetrating its almost 450-ft. length. NY-110. Field notes (1975); 4 sheets showing site plan, section, elevations, isometric (1975). NR, NHCEL.

OLD CROTON AQUEDUCT: VENTILATOR 9, 1840

NE corner of Spring St. and Everett Ave. Ossining, 18.595300.4556300. One of 22 ventilators used to aerate water and reduce the pressure of air trapped in the aqueduct. NY-111. Field notes (1975); 1 sheet showing plan, section, elevation (1975). NR, NHCEL.

Ossining vicinity—Westchester County

OLD CROTON AQUEDUCT: INDIAN CREEK CULVERT, 1837-39

200 ft. N. of Reservoir Rd., 400 ft. E. of Quaker Bridge Rd., 2.4 mi. N. of Ossining. Ossining, 18.594860.4560380. An 8-ft. high stone masonry culvert through the base of a 54-ft. high embankment which crosses the Indian Creek Valley. NY-108. Field notes (1975); 3 sheets showing plan, section, elevations (1975). NR, NHCEL.

Otisville—Orange County

ERIE RAILWAY: OTISVILLE TUNNEL, 1906-08

Running W. from Sanitarium Rd. to Otisville Rd. parallel to State Rt. 211. End points: Otisville, 18.537120.4591720, 18.538680.4591220. NY-21. 4 aerial photos (1971); 1 ext. photo (1971); 1 int. photo (1971).

Painted Post-Steuben County

ERIE RAILWAY: PAINTED POST PASSENGER AND FREIGHT STATION

N. side of Water St. between First and Bronson Sts. Corning, 18.327560.4668940. Demolished. NY-97. 3 ext. photos (c.1915?).

Pond Eddy vicinity—Sullivan County

ERIE RAILWAY: POND EDDY SIDE HILL CUT AND FILL

See Milford vicinity, Pennsylvania.

Portageville vicinity—Wyoming and Livingston Counties

ERIE RAILWAY: BUFFALO DIVISION, BRIDGE 361.66 (PORTAGE VIADUCT). 1875, 1903, 1943-44

Spanning Genesee River Valley 0.6 mi. W. of State Rt. 436, 0.8 mi. NW of Portageville. Portageville, 17.742160. 4717900. An iron trestle replaced the original timber viaduct, and has been strengthened twice by steel. Represents the final step in the development of the modern American metal railroad viaduct. NY-54. 10 aerial photos (1971); ref.

Port Jervis—Orange County

ERIE RAILWAY: PORT JERVIS ROUNDHOUSE

600 ft. NW of Pike St. opposite NW end of Front St. Port Jervis North, 18.525460.4580350. NY-23. 3 ext. photos (1971); 2 int. photos (1971).

ERIE RAILWAY: PORT JERVIS STATION, 1891

SW side of Jersey Ave. at SW end of Fowler St. Port Jervis South, 18.525760.4579900. NY-22. 2 aerial photos (1971); 8 ext. photos (1971).

Port Jervis vicinity—Orange County

ERIE RAILWAY: PORT JERVIS ROCK CUT

0.4 mi. SW of intersection of Neversink and Shinhollow Rds., 1.7 mi. E. of Port Jervis. Port Jervis North, 18.528980.4580680. NY-24. 2 aerial photos (1971).

Rexford—Saratoga County

*ERIE CANAL, ENLARGED: UPPER MOHAWK RIVER (REXFORD) AQUEDUCT, 1842

Spanning Mohawk River adjacent to State Rt. 146 between Rexford and Aqueduct, Schenectady County. Schenectady, 18.590870.4744580. One of two aqueducts of the enlarged canal over the Mohawk River. Partially demolished in 1918; four of the original thirteen stone masonry segmental arches remain. NY-12. 2 photocopies of maps (1834); 4 photos (1969); 3 data pages (1969-70). NHCEL.

Salamanca—Cattaraugus County

BALTIMORE AND OHIO RAILROAD: SALAMANCA REPAIR SHOPS, 1917

600 ft. E. of Columbia Ave. between Birch and Great Valley Sts. Salamanca, 17.690690.4670530. NY-100. 4 aerial photos (1971).

BALTIMORE AND OHIO RAILROAD: SALAMANCA STATION, 1912

E. side of Columbia Ave. between Birch and Great Valley Sts. Salamanca, 17.690580.4670520. NY-98. 3 aerial photos (1971).

BALTIMORE AND OHIO RAILROAD: SALAMANCA DOWNTOWN STATION, 1912

SE corner of Main and Rochester Sts. Salamanca, 17.688820.4669900. NY-99. 1 aerial photo (1971).

ERIE RAILWAY: SALAMANCA STATION, 1904

N. side of Atlantic St., 200 ft. W. of Main St. Salamanca, 17.688670.4669840. NY-37. 1 aerial photo (1971).

ERIE RAILWAY: SALAMANCA TURNTABLE

500 ft. N. of Atlantic St., 500 ft. W. of Main St. Salamanca, 17.688640.4669960. NY-38. 1 aerial photo (1971).

Salamanca vicinity (Carrollton)—Cattaraugus County

BALTIMORE AND OHIO RAILROAD: ERIE RAILWAY BRIDGE

Spanning Erie-Lackawanna tracks 200 ft. W. of State Rt. 17, 5.4 mi. SE of Salamanca. Limestone, 17.694160. 4664250. Baltimore through-truss bridge built on a skew. NY-101. 2 aerial photos (1971).



Moodna Creek Viaduct, looking westsouthwest.

Salisbury Mills vicinity—Orange County

ERIE RAILWAY: MOODNA CREEK VIADUCT, 1906

Spanning Moodna Creek Valley and Orrs Mill Rd. between Otterkill Rd. and State Rt. 94, 1 mi. E. of Salisbury Mills. Cornwall, 18.575280.4586600. Steel trestle. NY-62. 1 photocopy of photograph (c.1908); 3 aerial photos (1971).

Sands Point-Nassau County

SANDS POINT LIGHTHOUSE, 1809 NW end of Middle Neck Rd. Sea Cliff, 18.607040.4524430. Representative of many Long Island lighthouses. NY-93. 1 ext. photo (1974).

Speonk—Suffolk County

TUTTLE (FORDHAM) MILL, 1859

Intersection of Montauk Hwy. and Mill Rd. Eastport, 18.694680.4520900. Built originally for a carriage manufacturing company; later (and still) used as a lumber mill. 'NY-102. 1 ext. photo (1974).

Troy-Rensselaer County

*BURDEN IRON WORKS (BURDEN IRON COMPANY), 1809-1940

Between Wynants Kill and Burden St.; also N. of Wynants Kill along Hudson River. An early giant of the U.S. iron industry, noted especially for the manufacture of horse-shoes. NY-7. 1 photocopy of woodcut (1876); 3 photocopies of advertisements (1847, 2-1849); 1 photocopy of Henry Burden (1871); 24 data pages (1969).

*BURDEN IRON WORKS: LOWER (STEAM) WORKS, 1862+

E. bank of Hudson River, N. of Wynants Kill. Troy South, 18.606400.4728940. Site of company expansion during the Civil War; powered by steam. NY-7C. 1 photocopy of plan (c.1875); 2 photocopies of woodcuts (1886).

*BURDEN IRON WORKS: UPPER (WATER) WORKS, 1809+

S. of Wynants Kill, N. of Burden St., between State Rt. 2 and U.S. 4. Troy South, 18.607080.4728520. Site of the original portion of the Burden company; powered by water. NY-7A. 2 photocopies of plans (c.1875, 1915); 1 photocopy of woodcut (1886); 1 photo (1970).

***BURDEN IRON WORKS: WATER WHEEL, 1851**

S. side of Wynants Kill, 800 ft. W. of U.S. 4. Troy South, 18.607160.4728500 (approx). Overshot wheel 60 ft. in diameter, 22 ft. wide, with a capacity of perhaps 500 h.p., which supplied power to the Upper Works. Abandoned c.1899; remains melted as scrap during World War II. NY-7B. 3 photocopies of photographs (c.1899, c.1900, c.1930); 1 photo of site (1971).

*BURDEN IRON COMPANY: OFFICE BUILDING, 1881–82

W. end of Polk St. Troy South, 18.606510.4729200. Only significant surviving structure of the Burden company. NY-7D. 1 photocopy of woodcut (1886); 5 ext. photos (1969); 3 data pages (1969). NR.

*RENSSELAER IRON WORKS: RAIL MILL, 1866, 1904

N. bank of Poesten Kill, 300 ft. E. of Hudson River. Troy South, 18.606660.4730460. Typical example of 19thcentury brick masonry and heavy timber factory construction; designed by Alexander L. Holley. Destroyed 1969. NY-3. Field notes (1969); 4 sheets showing site plan, sections, elevations (1969); 2 photocopies of plans (c.1866, 1880); 2 photocopies of woodcuts (1886, other date unknown); 1 photocopy of advertisement (c.1882); 1 photocopy of int. photograph (1958); 1 ext. photo (1969); 7 int. photos (1969); 4 photos of ruins (1970); 20 data pages (1969-71).

*TROY GAS LIGHT COMPANY: GASHOLDER HOUSE, 1873

NW corner of Jefferson St. and Fifth Ave. Troy South, 18.607200.4730500. Built to enclose an iron gasholder (removed in 1930) which stored coal gas until needed by customers for lighting. Designed by Frederick A. Sabbaton; perhaps the most elaborate surviving example of its kind. NY-2. Field notes (1969); 4 sheets showing site plan, partial plan, half section/half elevation, truss details (1969); 8 ext. photos (1969); 7 int. photos (1969); 11 data pages (1969). NR.

***W. AND L. E. GURLEY COMPANY BUILDING, 1862**

NE corner of Fulton St. and Fifth Ave. Troy South, 18.607440.4731710. Used continuously since its construction for the manufacture of quality engineering and surveying instruments. NY-13. 1 photocopy of woodcut (1866); 5 ext. photos (1969); 10 data pages (1969). NR.

North and west elevations of the Vestal Station.

Vestal—Broome County

DELAWARE, LACKAWANNA, AND WESTERN RAILROAD: VESTAL PASSENGER AND FREIGHT STATION, 1881

W. side of N. Main St., 600 ft. N. of State Rt. 434. Endicott, 18.412790.4659800. Moved to a new location in 1972. NY-50. 5 ext. photos (1971); 1 int. photo (1971).





Troy Gasholder House: View from the northeast (above), and half elevation/ half section (right). Eric DeLony, delineator.







Warsaw—Wyoming County

ERIE RAILWAY: WARSAW PASSENGER AND FREIGHT STATION, c.1860

N. side of Alt. U.S. 20, 200 ft. W. of Brad St. Warsaw, 17.733020.4735610. NY-49. 3 aerial photos (1971).

Waterford—Saratoga County

*CHAMPLAIN CANAL: WATERFORD LOCKS, 1824-26

200 ft. S. of S. end of Fifth St. Troy North, 18.607810. 4738040. Remains of the canal which connected Lake Champlain with the Erie Canal. NY-14. 3 photocopies of maps (2-1834, 1857); 6 photos (1969); 5 data pages (1969-70).

Watervliet—Albany County

*WATERVLIET ARSENAL: CAST-IRON STOREHOUSE, 1859

SE of intersection of Westervelt Ave. and Gibson St. (on arsenal grounds), 200 ft. W. of Broadway. Troy South, 18.606080.4730120. Perhaps the only surviving all-iron building in the U.S. still used for its original purpose. All of its component parts, interior and exterior, were prefabricated by the Architectural Iron Works, New York. NY-1. Field notes (1969); 6 sheets showing plan, section, elevations, isometric, structural details (1969); 1 sheet showing connection details (1970); 1 sheet showing site plan (1972); 2 photocopies of site plans (c.1860, 1863); 1 photocopy of drawing (c.1859); 1 photocopy of ext. photograph (1875); 1 photocopy of Architectural Iron Works (1875); 11 ext. photos (1969); 8 int. photos (1969); 20 data pages (1969-72). NHL, NR.

Wellsville—Allegany County

ERIE RAILWAY: WELLSVILLE STATION, c.1910

E. corner of Pearl and Depot Sts. Wellsville South, 18.256280.4667480. NY-103. 6 construction photos (c.1910).



Cast-Iron Storehouse: West elevation (above), and isometric of interior corner (right). Charles Parrott, III, delineator.



Yonkers-Westchester County

OLD CROTON AQUEDUCT: SAW MILL RIVER CULVERT, 1838-39

Spanning Nepperhan Ave. 400 ft. NE of Walsh Rd. Yonkers, 18.593720.4532090. Solid stone masonry aqueduct with two river arches and a larger roadway arch penetrating its 370-ft. length. NY-118. Field notes (1975); 3 sheets showing plan, section, elevations (1975). NR, NHCEL.

Yorktown Heights vicinity—Westchester County

OLD CROTON AQUEDUCT: ENTRANCE ENTABLATURE, 1842

S. bank of New Croton Reservoir, 100 ft. SE of Old Croton Dam Bridge, 3 mi. SW of Yorktown Heights. Ossining, 18.600350.4565110. Commemorative stone masonry marker built originally over the entrance to the aqueduct from Croton Reservoir; moved in 1906 when the Old Croton Dam became submerged after construction of the New Croton Dam. NY-107. Field notes (1975); 1 sheet showing plan, elevation (1975). NR, NHCEL.

Bernville vicinity (Pleasant Valley)—Berks County

GRUBER WAGON WORKS, 1882, 1906

W. side of Gruber Rd., 200 ft. S. of State Rt. 183, 4 mi. SE of Bernville. Bernville, 18.410130.4472680. Rare surviving family-operated factory complete and virtually unaltered since the early 20th century; much original machinery remains intact. Expected to be moved to a protected location before its present site becomes submerged by the Blue Marsh Lake Project of the Army Corps of Engineers. PA-14. Field notes (1973-74); 7 sheets showing plan, sec-

Gruber Wagon Works: Longitudinal section showing machinery. Roland David Schaaf, delineator.



tions, elevation (1974); 3 photocopies of ext. photographs (c.1895, c.1910?, c.1960); 1 photocopy of wagon (c.1900?); 2 photocopies of trucks (c.1920); 9 ext. photos (4-1973, 5-1974); 54 int. photos (1974); ref. NR.



Gruber Wagon Works: Interior of the blacksmith shop, showing power press and hydraulic tire setter (top). William Edmund Barrett, photographer. View about 1895 (bottom).

Bethlehem—Northampton County

*LUCKENBACH FLOUR MILL, 1869

250 ft. E. of Monocacy Creek, 250 ft. W. of Main St., 700 ft. S. of Broad St. Allentown East, 18.467580.4496460. Built on the foundations of a 1751 Moravian gristmill destroyed in 1869; roller milling machinery was installed in 1882, and later removed. PA–50. Field notes (1975); 5 sheets showing site plan, plans, sections, elevation (1975); 1 photocopy of site plan (1882); 5 photocopies of ext. photographs (c.1860, c.1869, c.1870, c.1900, c.1969); 4 ext. photos (1975); 14 int. photos (1975); ref. NR.

Cambridge Springs—Crawford County

ERIE RAILWAY: CAMBRIDGE SPRINGS STATION, 1891

NW side of U.S. 6/19 opposite Railroad St. Cambridge Springs, 17.578130.4628140 (approx). Demolished 1964. PA-26.2 ext. photos (1916).

Cambridge Springs vicinity—Crawford County

ERIE RAILWAY: DIVERGING FRENCH CREEK BRIDGES

Spanning French Creek 2.7 mi. SE of U.S. 6/19, 3.6 mi. NE of State Rt. 408, 1.7 mi. NE of Millers Station, 4.6 mi. NE of Cambridge Springs. Millers Station, 17.584870.4631430. A multiple-intersection (lattice) through-truss bridge and a Pratt deck truss bridge. PA-27A-27B. 5 aerial photos (1971).

ERIE RAILWAY: PARALLEL FRENCH CREEK BRIDGES

Spanning French Creek 1000 ft. S. of Millers Station Rd., 0.4 mi. NE of State Rt. 408, 0.9 mi. E. of Cambridge Springs. Cambridge Springs, 17.579760.4628350. A multiple-intersection (lattice) through-truss bridge and a Pratt deck truss bridge. PA-28A-28B. 4 aerial photos (1971).

Clairton-Allegheny County

UNITED STATES STEEL CORPORATION: CLAIRTON WORKS

W. side of Monongahela River, E. of State St. Largest plant for the production of coke and chemicals from coal in the U.S. PA-49, 2 ext. photos (1974).

CLAIRTON WORKS: BLAST FURNACE BLOWING ENGINE BUILDING, 1903

900 ft. E of State St. 0.3 mi. S. of St. Clair Ave. McKeesport. 17.595740.4460150. Houses seven vertical cross-compound condensing steam engines built by the Southwark Foundry and Machine Co.. Philadel-



Classics Works. Blass formate blanding engines. phia. PA-49A. 2 ext. photos (1974); 4 int. photos (1974).

CLAIRTON WORKS: 14-INCH MILL ENGINES 1 AND 2, 1907

1100 ft. E. of State St., 0.3 mi. N. of St. Clair Ave. McKeesport, 17.595960.4461040. Hamilton Corliss horizontal tandem-compound steam engines built by Hooven Owen and Rentschler, Hamilton, Ohio. PA-49B. 2 photos (1974).

CLAIRTON WORKS: 22-INCH #2 MILL (later 21-INCH MILL) ENGINE, 1910

1200 ft. E. of State St., 0.3 mi. N. of St. Clair Ave. McKeesport, 17.596010.4461030. Hamilton Corliss horizontal tandem-compound steam engine built by Hooven Owen and Rentschler, Hamilton, Ohio. PA-49C. 1 photo (1974).

Cochranton—Crawford County

ERIE RAILWAY: COCHRANTON PASSENGER AND FREIGHT STATION, c.1870

SE side of State Rt. 173, 200 ft. NE of French Creek. Cochranton, 17.579040.4596520. PA-29. 4 ext. photos (1972).

Corry vicinity—Erie County

PENNSYLVANIA RAILROAD: ERIE RAILWAY BRIDGE

Spanning Erie-Lackawanna tracks 0.2 mi. S. of Elgin Rd., 1 mi. W. of State Rt. 89, 4.4 mi. SW of Corry. Corry, 17.606140.4639230. Parker through-truss bridge. PA-34. 3 aerial photos (1971).

Dingmans Ferry—Pike County

DELAWARE RIVER BRIDGE, c.1900

Spanning Delaware River off U.S. 209 opposite State Rt.

739, between Dingmans Ferry and Sussex County, N. J. Culvers Gap, 18.511760.4562990. Pratt through-truss bridge, built by the Phoenix Bridge Co., Phoenixville, Pa. PA-15. 3 sheets showing site plan, plan, section, elevations, connection details (1971); 3 photos (1970).

Hawley—Wayne County

ERIE RAILWAY: HAWLEY COALING STATION Location unknown. PA-25. 5 photos (1929).

Lackawaxen—Pike County



Delaware Aqueduct: View toward New York, showing the present roadway. David Plowden, photographer.

*DELAWARE AND HUDSON CANAL: DELAWARE AQUEDUCT, 1847-48

Spanning Delaware River off State Rt. 590 between Lackawaxen and Minisink Ford, Sullivan County, N.Y. Shohola, 18.501260.4592110. Probably the oldest suspension bridge in the U.S.; earliest surviving work of John Roebling. Built originally as an aqueduct; converted to a highway bridge c.1898. PA-1. Field notes (1969); 4 sheets showing site plan, plan, sections, elevations (1969); 1 photocopy of map (1866); 6 photocopies of original drawings (1847); 1 photocopy of woodcut (1887); 1 photocopy of John Roebling (1869); 5 photocopies of photographs (2-c.1890, 1898, 2-c.1900); 3 aerial photos (1971); 16 photos (1969); 12 data pages (1971). NHL, NR, NHCEL.

ERIE RAILWAY: DELAWARE DIVISION, BRIDGE 110.54, 1907

Spanning Lackawaxen River 600 ft. E. of State Rt. 590. Shohola, 18.500880.4592600. Pratt deck truss bridge. PA-24. 11 photos (1933); 7 photos (1971).

Lanesboro-Susquehanna County

ERIE RAILWAY: DELAWARE DIVISION, BRIDGE 189.46 (STARRUCCA VIADUCT), 1847-48 Spanning Starrucca Creek Valley 0.3 mi. E. of Sus-



Delaware Aqueduct from the northwest (left). David Plowden, photographer. Section at the third pier and the southwest abutment (below). Eric DeLony and Robert M. Vogel, delineators.





Starrucca Viaduct.

quehanna River. Susquehanna, 18.451610.4645740. Seventeen stone masonry barrel arches rising 100 ft.; has continued in service virtually unchanged since its construction. PA-6. 1 photocopy of photograph (1920); 7 aerial photos (1971); 8 photos (1971); ref. NR, NHCEL.

ERIE RAILWAY: DELAWARE DIVISION, BRIDGE 190.13, 1930

Spanning State Rt. 171 at Canawacta Creek. Susquehanna, 18.451420.4644680. Single-span reinforced concrete segmental arch. PA-16. 5 construction photos (1930); 1 photo (1971).

ERIE RAILWAY: DELAWARE DIVISION, CULVERT 190.21, 1930

Spanning Canawacta Creek at state Rt. 171. Susquehanna, 18.451400.4644660. Built to provide a path for the creek under Bridge 190.13. PA-17. 1 photo (1930).

Lanesboro vicinity—Susquehanna County

ERIE RAILWAY: SITE OF CASCADE BRIDGE, 1847-48

Banks of Cascade Creek 0.5 mi. E. of Susquehanna River, 2.3 mi. N. of Lanesboro. Susquehanna, 18.450920.4648560.

Fragments of stone abutments which once supported an intricate single-span timber segmental arch. PA-18. 2 aerial photos (1971); ref.

Meadville—Crawford County

ATLANTIC AND GREAT WESTERN (later ERIE) RAILROAD: MEADVILLE REPAIR SHOPS

Between French Creek and U.S. 6/19, S. of Spring St. Important repair complex taken over by the Erie in 1868; buildings of brick masonry and heavy timber construction. PA-11. 4 aerial photos (1971).

ATLANTIC AND GREAT WESTERN (later ERIE) RAILROAD: MEADVILLE BLACK SMITH SHOP, 1865

E. bank of French Creek, 800 ft. S. of Spring St. Meadville, 17.570150.4610430. PA-11B. Field notes (1971); 2 sheets showing plan, truss details (1971); 2 sheets showing elevations (1972); 10 ext. photos (1972); 2 int. photos (1972).

ATLANTIC AND GREAT WESTERN (later ERIE) RAILROAD: MEADVILLE MACHINE AND ERECTING SHOP, 1865

E. bank of French Creek, 1000 ft. S. of Spring St. Meadville, 17.570100.4610320. PA-11A. Field notes (1971); 2 sheets showing plan, elevations (1971); 7 ext. photos (1972); 5 int. photos (1972).

ATLANTIC AND GREAT WESTERN (later ERIE) RAILROAD: MEADVILLE STOREHOUSE, 1865-66

W. side of U.S. 6/19, 600 ft. S. of Spring St. Meadville, 17.570220.4610440. PA-11C. Field notes (1971); 1 sheet showing structural details (1971); 3 sheets showing plans, elevations (1972); 5 ext. photos (1972); 1 int. photo (1972).

ERIE RAILWAY: MEADVILLE ROUNDHOUSE

W. side of U.S. 6/19 opposite W. end of North St. Meadville, 17.570140.4610200. Six bays survive. PA-13. 5 ext. photos (1972).

Meadville Shops from the air: Machine and Erecting Shop in the foreground, Blacksmith Shop in the center, and Storehouse in the rear.





Meadville Blacksmith Shop: South elevation (right). Frederick Yestadt, delineator. Detail of roof truss (above).





Meadville Machine and Erecting Shop from the southeast, with the Blacksmith Shop in the background.

ERIE RAILWAY: MEADVILLE STATION, 1893

W. side of McHenry St. at W. end of Chestnut St. Meadville, 17.570180.4609850. Brick building built to replace a famous wooden A. & G.W. station which straddled the tracks and roofed over them. Demolished 1972. PA-12. 1 photocopy of ext. photograph (date unknown); 1 aerial photo (1971).

MEAD AVENUE BRIDGE, 1871, 1911

Spanning French Creek on Mead Ave. Meadville, 17.569760.4609690. Double-intersection Pratt (Whipple) through-truss bridge, built by the Penn Bridge Works, New Brighton, Pa. Single-intersection Pratt trusses superimposed on the originals in 1911 to accommodate increased loading. PA-19. 2 aerial photos (1971); 7 photos (1972).

Meadville vicinity—Crawford County

ERIE RAILWAY: BUCHANAN JUNCTION INTERLOCKING TOWER

700 ft. E. of French Creek, 300 ft. W. of U.S. 322, 2.8 mi. S. of Meadville. Geneva, 17.571030.4605310. PA-20. 4 aerial photos (1971); 3 ext. photos (1972); 1 int. photo (1972).

Buchanan Junction Interlocking Tower from the east.



Milford vicinity (Pond Eddy)—Pike County (Pond Eddy, N.Y., vicinity)

ERIE RAILWAY: POND EDDY SIDE HILL CUT AND FILL

S. bank of Delaware River opposite N.Y. State Rt. 97, 7.5 mi. N. of Milford, 0.8 mi. SE of Pond Eddy, N.Y. Pond Eddy, 18.514420.4586300. PA-30. 3 aerial photos (1971).

Millrift—Pike County

ERIE RAILWAY: DELAWARE RIVER BRIDGE

Spanning Delaware River 800 ft. S. of Cherry Island between Millrift and Orange County, N.Y. Port Jervis North, 18.521580.4583700. Pratt deck truss bridge. PA-23. 1 aerial photo (1971).

Mount Jewett—McKean County

ERIE RAILWAY: MOUNT JEWETT STATION

N. side of U.S. 6 at S. end of Kushequa Rd. Mount Jewett, 17.695860.4621640. PA-21. 6 ext. photos (1916).

Mount Jewett vicinity—McKean County

ERIE RAILWAY: BRADFORD DIVISION, BRIDGE 27.66 (KINZUA VIADUCT), 1882, 1900

Spanning Kinzua Creek Valley 1.5 mi. NE of Kushequa, 4 mi. NE of Mt. Jewett. Cyclone, 17.700420.4626000. Iron trestle rebuilt in steel; largest railroad viaduct in the U.S. when constructed (301 ft. high, 2053 ft. long). Abandoned 1959. PA-7. 18 aerial photos (1971); 6 photos (c.1900?); ref.

Oil City—Venango County

PENNSYLVANIA RAILROAD: ALLEGHENY RIVER BRIDGE



Kinzua Viaduct.

Spanning Allegheny River W. of River St. Oil City, 17.608800.4586240. Parker through-truss bridge; forms the stem of a larger Y-shaped bridge. PA-22. 5 aerial photos (1971).

Philadelphia-Philadelphia County

FALLS BRIDGE, 1895

Spanning Schuylkill River between East River Dr. and West River Dr., 1200 ft. NW of Roosevelt Blvd. Extension bridge. Germantown, 18.483120.4428480. Baltimore through-truss bridge with subdivided panels and squared ends. PA-35. 3 stereopairs (1971).

KEYSER BROTHERS IRON WORKS, 1928

4041 Ridge Ave.; S. side of Ridge Ave., E. of Roosevelt Blvd. Extension. Germantown, 18.483700.4428380. Producers of ornamental ironwork for elaborate Philadelphia houses; fabricated the alter gate of the National Cathedral in Washington. Housed in a stone industrial complex built in the mid-1850s. Dismantled 1971. PA-40. 3 ext. photos (1971); 13 int. photos (1971); ref.



PENNSYLVANIA RAILROAD: BRICK VIADUCT, 1903

Parallel to SW side of Schuylkill River, extending NW from Spring Garden St. Philadelphia, 18.484020.4423720. Thirty barrel arches; largest all-brick bridge, and one of only a few brick railroad bridges in the U.S. PA-38. 1 stereopair (1971).

Keyser Brothers Iron Works: Forge and tools (right), and Mr. Keyser at his anvil (left).



PENNSYLVANIA RAILROAD: MANTUA JUNCTION VIADUCT, 1914

Spanning Schuylkill River 300 ft. N. of Girard Ave. bridge. Philadelphia, 18.483420.4424930. Eleven stone masonry and reinforced concrete barrel and segmental arches which carry the former Connecting Railroad (later New York Division) to its junction with the Main Line. PA-37. 1 stereopair (1971); 1 stereotriplet (1971).

PHILADELPHIA GAS WORKS: POINT BREEZE METER HOUSE, 1851-54

700 ft. N. of Passyunk Ave., 200 ft. E. of Schuylkill Ave. Philadelphia, 18.482960.4418940. Gothic architectural style applied to an industrial building. PA-41. 6 sheets showing site plan, plans, sections, elevations (1974); ref.

PHILADELPHIA AND READING (later READING) RAILROAD: SCHUYLKILL RIVER VIADUCT (FALLS BRIDGE), 1855

Spanning Schuylkill River just SE of Roosevelt Blvd. Extension bridge. Germantown, 18.483540.4428270. Six stone masonry segmental arches built on a skew. PA-39. 4 stereopairs (1971).

PHILADELPHIA AND READING (later READING) RAILROAD: WISSAHICKON CREEK VIADUCT, 1882

Spanning Wissahickon Creek 200 ft. N. of Ridge Ave. bridge. Germantown, 18.482350.4429260. Five stone masonry segmental arches. PA-36. 2 stereopairs (1971); 1 stereotriplet (1971).

Pittsburgh—Allegheny County

JONES AND LAUGHLIN STEEL CORPORATION: PITTSBURGH WORKS: MORGAN BILLET MILL ENGINE, 1893

550 ft. N. of E. Carson St. opposite S. 27th St. Pittsburgh East, 17.587670.4475610. Vertical cross-compound steam engine built by William Tod and Co., Youngstown, Ohio. PA-48.8 photos (1974).

Manchester Bridge: Drawing from 1916 of the south portal (bottom), and the south portal shortly before demolition (top). Charles Shane, photographer.



NORTH SIDE POINT (MANCHESTER) BRIDGE, 1911-15

Spanning Allegheny River at the Point of Pittsburgh. Pittsburgh West, 17.583680.4477220. Pennsylvania through-truss bridge with elaborate ornamental portals. Demolished 1970. PA-4. 6 photocopies of original drawings (1911); 2 photocopies of drawings (1913); 7 photocopies of drawings (1916); 9 photos (1970); ref.

POINT BRIDGE, 1925-27

Spanning Monongahela River at the Point of Pittsburgh. Pittsburgh West, 17.583630.4476880. Arch through-truss bridge with cantilever side spans. Demolished 1970. PA-5. 6 photos (1970); ref.



SMITHFIELD STREET BRIDGE, 1883, 1891

Spanning Monongahela River on Smithfield St. Pittsburgh West, 17.584630.4476290. Lenticular through-truss bridge, designed by Gustav Lindenthal; oldest steel truss bridge in the U.S. PA-2. 1 photocopy of original drawing (1889); 1 photocopy of drawing (1890); 4 photocopies of drawings (1914); 22 photos (1974); ref. NHL, NR, NHCEL.

SOUTH TWENTY-SECOND STREET (BRADY STREET) BRIDGE, 1895-96

Spanning Monongahela River on Brady St. Pittsburgh East, 17.587080.4476110. Arch through-truss bridge. PA-3. 8 photocopies of original drawings (1894); 3 photos (1970); photos (1974) pending.

Riegelsville—Bucks County

DELAWARE RIVER BRIDGE, 1926

Spanning Delaware River on Delaware Rd. between Riegelsville and Warren County, N.J. Riegelsville, 18.483830.4493510. Three suspension spans; built by John A. Roebling's Sons Co., Trenton, N.J. PA-31. 5 photos (1970).

Sayre—Bradford County

LEHIGH VALLEY RAILROAD: SAYRE REPAIR SHOPS

NE side of Lehigh Ave. opposite Stevenson St. Sayre, 18.374440.4649230. PA-33. 9 aerial photos (1971).

LEHIGH VALLEY RAILROAD: SAYRE STATION, 1881

E. side of Lehigh Ave. between Packer Ave. and Lockhart St. Sayre, 18.374530.4648570. PA-32. 4 aerial photos (1971).

Shohola—Pike County

ERIE RAILWAY: SHOHOLA CREEK BRIDGE

Spanning Shohola Creek 700 ft. SE of State Rt. 434. Shohola, 18.507270.4590960. Single stone masonry barrel arch, half in ruins; replaced by a deck plate girder bridge. PA-43. Field notes (1971); 3 aerial photos (1971); 5 photos (1971).

ERIE RAILWAY: SHOHOLA STATION

Intersection of Rohman Rd. and Richardson St. Shohola, 18.507130.4591230. PA-42. 4 ext. photos (1971); 3 int. photos (1971).

Shohola vicinity—Pike County

ERIE RAILWAY: SHOHOLA SIDE HILL CUT AND BUTTRESSED REVETMENT

S. bank of Delaware River, 1.1 mi. S. of mouth of Shohola Creek, 1.3 mi. S. of Shohola. Shohola, 18.507950.4589530. Concrete butresses support a stone retaining wall by the river's edge. PA-44. 3 aerial photos (1971).

Susquehanna—Susquehanna County

ERIE RAILWAY: SUSQUEHANNA FREIGHT STATION, 1865

NW side of Front St., 600 ft. W. of intersection of Front and Main Sts. Susquehanna, 18.449560.4643670. Built along with Starrucca House during a major upgrading of the Susquehanna facilities. Demolished 1971. PA-9. 1 aerial photo (1971).

ERIE RAILWAY: SUSQUEHANNA REPAIR SHOPS

NW side of Main St., SW of Exchange St. Replaced the original Susquehanna shop buildings during a post-Civil War Erie expansion; a model of functional planning and efficiency in their day. Partially destroyed 1975. PA-10. Field notes (1971); 2 sheets showing site plan, plan (1971); 4 aerial photos (1971); ref.

ERIE RAILWAY: SUSQUEHANNA BLACKSMITH SHOP, 1864-65

200 ft. NW of Main St., 500 ft. SW of Exchange St. Susquehanna, 18.449800.4643750. PA-10C. 1 ext. photo (1971); 2 int. photos (1971).

ERIE RAILWAY: SUSQUEHANNA BOILER SHOP, 1864-65

200 ft. NW of Main St., 700 ft. SW of Exchange St.

Susquehanna, 18.449760.4643740. PA-10D. 2 ext. photos (1971); 1 int. photo (1971).

ERIE RAILWAY: SUSQUEHANNA BOILER SHOP, 1900

200 ft. NW of Main St., 600 ft. SW of Exchange St. Susquehanna, 18.449770.4643740. PA-10E. 1 ext. photo (1971); 1 int. photo (1971).

ERIE RAILWAY: SUSQUEHANNA CARPENTER SHOP, 1864-65

SW side of Exchange St., 200 ft. NW of Main St. Susquehanna, 18.449930.4643820. PA-10B. 2 ext. photos (1971); 1 int. photo (1971).



Susquehanna Carpenter Shop: Northeast elevation.

ERIE RAILWAY: SUSQUEHANNA MACHINE AND ERECTING SHOP (LONG SHOP), 1864-66 NW side of Main St., extending SW from Exchange St. Susquehanna, 18.449850.4643740. Contained a machine shop, erecting shop, and transfer table, in separate but adjacent aisles, all running the full 711ft. length of the building. Divided into two separate buildings by a transverse external transfer table 1929-30. PA-10A. 2 sheets showing section, elevation (1971); 1 sheet showing isometric of structural framing (1973-74); 2 ext. photos (1971); 2 int. photos (1971).

ERIE RAILWAY: SUSQUEHANNA REPAIR SHOPS OFFICE BUILDING, 1898

NW side of Main St., 100 ft. NE of Front St. Susquehanna, 18.449760.4643670. PA-10F. 3 ext. photos (1971); 1 int. photo (1971).

ERIE RAILWAY: SUSQUEHANNA TRANSFER TABLE, 1929-30

NW side of Main St., 200 ft. SW of Exchange St. Susquehanna, 18.449880.4643780. PA-10G. 3 photos (1971).

ERIE RAILWAY: SUSQUEHANNA STATION AND HOTEL (STARRUCCA HOUSE), 1865

NW side of Front St., 900 ft. W. of intersection of Front and Main Sts. Susquehanna, 18.449440.4643590. Last surviving major railroad station-hotel in the U.S.; famous for its large elegant dining hall. PA-8. Field notes (1971); 7 sheets showing plans, section, elevations, architectural details (1971); 5 aerial photos (1971); 7 ext. photos (1971); 10 int. photos (1971); ref. NR.

Union City—Erie County

ERIE RAILWAY: CROSSING GATE TOWER

W. side of Lincoln St., 100 ft. S. of Concord St. Union City, 17.595730.4638550. Demolished. PA-47. 1 photo (1916).

ERIE RAILWAY: UNION CITY FREIGHT STATION

Location unknown. PA-46. 2 ext. photos (1916).

ERIE RAILWAY: UNION CITY STATION

E. side of Lincoln St., 100 ft. S. of Concord St. Union City, 17.595760.4638550. Demolished c.1950. PA-45. 4 ext. photos (1916).



Long Shop: Northeast elevation (left). Kathleen Hoeft, delineator. Starrucca House: Northwest elevation (below).



Rhode Island

Albion—Providence County

BLACKSTONE CANAL, 1825-28

Extending NW and SE from School St., 300 ft. W. of Blackstone River. Pawtucket, 19.296600.4647220. Remains of a canal which ran originally between Providence and Worcester, Mass. RI-11. 3 photos (1971). NR.

Ashton vicinity (Quinnville)—Providence County

BLACKSTONE CANAL, 1825-28

Parallel to W. side of Blackstone River between Old River Rd. and Washington Hwy., 0.5 mi. W. of Ashton. End points: Pawtucket, 19.298090.4645630, 19.298420.4644180. RI-10. 5 photos (1971). NR.

BLACKSTONE CANAL: CANAL TENDER'S HOUSE, c.1840

Between the canal and Blackstone River, 400 ft. S. of Washington Hwy., 0.2 mi. W. of Ashton. Pawtucket, 19.298210.4645430. One-story cottage dwelling. RI-10A. 1 ext. photo (1971). NR.

Central Falls—Providence County

BLACKSTONE CANAL, 1825-28

900 ft. S. of State Rt. 126, 0.3 mi. W. of Lonsdale Ave. Pawtucket, 19.300200.4640290. A segment of the canal exists today as Moshassuck River. RI-8. 1 photo (1971). NR.

Central Falls vicinity (Lonsdale)—Providence County

BLACKSTONE CANAL, 1825-28

Extending N. and S. of Front St., 800 ft. W of Lonsdale

Rhode Island

Ave., 1.6 mi. NW of Central Falls. Pawtucket, 19.300390. 4641980. RI-9. 2 photos (1971). NR.

Chepachet vicinity—Providence County

PLANTE GRISTMILL, c.1860

0.4 mi. S. of U.S. 44, 3.5 mi. W. of Chepachet. Chepachet, 19.272740.4643920. Small wooden one-story structure; typical but rare surviving example of country gristmills in New England. Some machinery intact. RI-5. Field notes (1974); 8 ext. photos (3-1974, 5-1975); 7 int. photos (4-1974, 3-1975); ref.

Pawtucket—Providence County

SLATER MILL, 1793-c.1830

S. side of Slater St., 100 ft. E. of Roosevelt Ave. Pawtucket, 19.302260.4638720. First mill built for cotton manufacture in the U.S. RI-1. 3 ext. photos (1971); 1 int. photo (1971). NHL, NR.

WILKINSON MILL, 1810

E. side of Roosevelt Ave., 100 ft. S. of Slater St. Pawtucket, 19.302220.4638710. Built as both a cotton mill and machine shop. RI-2. 1 ext. photo (1971).

Providence—Providence County

AMERICAN SCREW COMPANY FACTORY, 1840-73

N. and S. of Stevens St., E. of Charles St. Providence, 19.299760.4634130. Complex of structures built by what was once the largest manufacturer of screws in the U.S. Destroyed 1971. RI-6. 2 sheets showing site plan, section (1970); 1 photocopy of fire photograph (1971); 21 ext. photos (1970); 19 int. photos (1970).

BLACKSTONE CANAL, 1825-28

From Charles and Randall Sts. to Canal and Haymarket Sts. End points: Providence, 19.299700.4634160, 19.299730.





American Screw Company from the west.

4633320. Surviving portion of the southern terminus of the canal. RI–7. 8 photos (1971). NR.

PROVIDENCE AND WORCESTER RAILROAD: PROVIDENCE FREIGHT HOUSE (SOUTH FREIGHT HOUSE, MERCHANDISE HOUSE), 1848 W. side of Canal St., 200 ft. N. of Promenade St. Providence,

19.299770.4633230. Designed by Thomas A. Tefft along with his famous Providence Union Passenger Depot. Demolished 1973. RI-3. 5 sheets (1974-75) pending; 3 photocopies of architect's original drawings (c.1847); 9 ext. photos (1973); 2 int. photos (1973); 8 demolition photos (1973).

West Warwick—Kent County

LIPPITT MILL, 1809-10

825 Main St.; SW side of Main St. opposite Wakefield St. Crompton, 19.289770.4621560. Second oldest cotton mill surviving in R.I. RI-4. Field notes (1967); 2 sheets showing site plan, plan (1971); 2 sheets showing section, elevations (1971-72); ref. NR, HABS.

Rhode Island

South Freight House: East elevation. Laurence Tilley, photographer.







Original drawing of the South Freight House by Thomas Tefft, c.1847 (middle), and demolition (bottom). Laurence Tilley, photographer. Lippitt Mill: West elevation (left). Donald Prycer and Frederick Yestadt, delineators.

South Carolina

Charleston—Charleston County

NORTHEASTERN RAILROAD: CHARLESTON EAST FREIGHT STATION, 1881

2 Chapel St.; N. side of Chapel St., 100 ft. E. of East Bay St. Charleston, 17.600090.3628640. One of twin Chinese Victorian freight depots. Demolished 1973 (twin survives). SC-1. Field notes (1973).



Charleston East Freight Station. Typical page from a HAER field notebook. Recorded by Eric DeLony and Frederick Yestadt.
Texas

San Antonio—Bexar County

SAN ANTONIO ACEQUIAS, 1718-77

Extending along San Antonio River for 15 mi. between Hildebrand Ave. and Minita Creek. End points: San Antonio East, 14.551420.3259330; Southton, 14.553950,3241160. Extensive Spanish irrigation system built to supply water to missions and fields. TX-1. 3 sheets showing maps, profile, sections (1973); ref. NHCEL.

ALAMO MADRE ACEQUIA, c.1720

700 ft. E. of Alamo St., 200 ft. N. of Durango Blvd. San Antonio East, 14.549900.3254240. Archeological excavation of part of the oldest acequia in the San Antonio system. TX-1C. 1 sheet showing site plan, plan, sections (1973). NHCEL.

ESPADA ACEQUIA: DIVERSION DAM, c.1731

Crossing San Antonio River 0.3 mi. SW of intersection of Military Dr. and South Presa St. Southton, 14.552000.3246350. Built of flagstones which have become cemented together over the years by calcium in the water. TX-1B. 1 sheet showing plan, sections, elevations (1973). NHCEL.

ESPADA ACEQUIA: PIEDRAS CREEK AQUEDUCT, c.1745

Spanning Piedras Creek 200 ft. E. of Espada Rd., 500 ft. S. of Ashley Rd. Southton, 14.552340.3244740. Two stone masonry barrel arches; only surviving Spanish structure of its type in the U.S. TX-1A. 1 sheet showing plan, sections, elevation (1973). NHL, NR, NHCEL.

SAN JOSE GRISTMILL

SW of San Jose Dr., 800 ft. E. of Roosevelt Ave. Southton, 14.550630.3248040 (approx). Served the San Jose Mission using water power from the San Jose Acequia. TX-2. 1 sheet showing site plan, plans, section, elevation (1973).



Piedras Creek Aqueduct: Plan and elevation. Gary Rogers, delineator.

Texas / Utah



San Jose Gristmill: Plans, section, elevation. Gary Rogers, delineator.

Bingham Canyon-Salt Lake County

UTAH COPPER COMPANY (later KENNECOTT COPPER CORPORATION): BINGHAM CANYON MINE, 1904+

S. end of State Rt. 48. Bingham Canyon, 12.402680. 4486160. First and largest open-pit copper mine in the world; now 2½ mi. wide and ½ mi. deep. UT-21. 4 sheets showing site plan, plans and profiles of historical development (1972); 26 photos (1972); ref. NHL, NR.



Bingham Canyon Mine: Topographical maps showing growth of the mine from 1908 to 1926 to 1971 (top). Amy Weinstein and Toni Ristau, delineators. View from the west (bottom).

Brigham City vicinity—Box Elder County

SOUTHERN PACIFIC RAILROAD: OGDEN-LUCIN CUTOFF TRESTLE, 1902-04

Crossing Great Salt Lake between Promontory Point and Lakeside, 40 mi. SW of Brigham City. End points: Carrington Island NE, 12.371900.4563720; Lakeside, 12.352800. 4564540. Built to eliminate 44 mi. of extreme grades and curves on the land route between Ogden (Weber County) and Lucin; longest trestle (11.88 mi.) and fill project in the U.S. UT-13. Field notes (1971); 5 sheets showing site plan, partial plan, sections, partial elevations, isometric (1971); 20 aerial photos (1971); 22 photos (1971); ref. NR.

Ogden-Lucin Cutoff Trestle: Isometric of typical segment (top). Robert McNair, delineator. View looking west (bottom).



Fielding vicinity—Box Elder County

BEAR LAKE AND RIVER WATERWORKS AND IRRIGATION COMPANY: IRRIGATION DIVERSION DAM, 1889-91

Crossing Bear River 5 mi. NE of Fielding. Cutler Dam, 12.414300.4633660 (approx). Rock filled, timber-crib dam built to provide water for the Bear River Valley; irrigation system taken over and extensively developed by the Utah Sugar Co. beginning 1902. UT-9. 1 photocopy of photograph (c.1914?); ref.

UTAH SUGAR COMPANY: WHEELON HYDROELECTRIC PLANT, 1902-03

SE bank of Bear River, 3.3 mi. NE of Fielding. Cutler Dam, 12.412200.4631570 (approx). Built to supply power to the Garland sugar refinery. Used excess water from the Utah Sugar Co. irrigation canals, thus generating electricity as a by-product of the irrigation system. Abandoned c.1930. UT-8. 1 photocopy of ext. photograph (1914); 1 photocopy of int. photograph (1914); ref.

Garland vicinity—Box Elder County

UTAH (later UTAH-IDAHO) SUGAR COMPANY: GARLAND BEET SUGAR REFINERY, 1902-03

S. side of Factory St., 0.3 mi. W. of U.S. 191, 0.6 mi. E. of Garland. Tremonton, 12.404480.4621320. Oldest working beet sugar refinery in the Mountain West; built in conjunction with an extensive farm irrigation system, transportation facilities, and a company town. UT-19. Field notes (1972); 8 sheets showing map of irrigation and transportation systems, site plan, plans, sections, elevation in perspective, flow diagram of sugar refining process (1972); 1 ext. photo (1971); 7 int. photos of machinery (1971); ref.



Garland Beet Sugar Refinery: Evaporators used to concentrate beet juice.

Goshen vicinity—Utah County

TINTIC STANDARD REDUCTION MILL, 1919-20

W. side of Warm Springs Mtn., 0.6 mi. E. of U.S. 6, 2.5 mi. E. of Goshen. Santaquin (15 min.), 12.427170.4423400.

Used the antiquated Augustin process for reducing silver ore. Abandoned in 1925 after its mine could no longer supply ore of the grade and composition for which the mill was designed. UT-12. Field notes (1971); 4 sheets showing site plan, plan, section, elevation (1971); 13 photos (1971); ref.

Green River vicinity—Grand County

HASTINGS RANCH IRRIGATION WATER WHEEL

W. bank of Green River on Hastings Ranch, 8.7 mi. N. of Green River. Gunnison Butte (15 min.), 12.574500.4325810 (approx). Perhaps the only surviving example of a oncecommon type of wooden irrigation wheel used in southeastern Utah. UT-18. 11 photos (1971); ref.

Heber City vicinity—Wasatch County

HEBER LIGHT AND POWER COMPANY: HYDROELECTRIC PLANT, 1908-09

E. side of U.S. 40/189, 4 mi. N. of Heber City. Heber, 12.464000.4490760. Typical local generating plant. Abandoned 1972. UT-6. Field notes (1971); 3 sheets showing site plan, plan, section, elevations (1971); 4 ext. photos (1971); 3 int. photos (1971); ref.

Holladay vicinity—Salt Lake County

BIG COTTONWOOD POWER (later UTAH POWER AND LIGHT) COMPANY: STAIRS HYDROELECTRIC PLANT, 1895

S. side of State Rt. 152, 2.2 mi. E. of Wasatch Blvd., 6.4 mi. SE of Holladay. Draper, 12.436460.4497040. Typical early local generating plant. UT-3. 1 photocopy of ext. photo-graph (1914); 4 ext. photos (1971); 2 int. photos (1971).

BIG COTTONWOOD POWER (later UTAH POWER AND LIGHT) COMPANY: STAIRS WOODEN FLUME, c.1895? N. side of State Rt. 152, 2.2 mi. E. of Wasatch Blvd., 6.4

tion Mill.

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Hastings Ranch Water Wheel.

Ruins of the Tintic Standard Reduc-

mi. SE of Holladay. Draper, 12.436410.4497150. Carries water to the Stairs plant. UT-3A. 4 photos (1971).

UTAH POWER (later UTAH POWER AND LIGHT) **COMPANY: GRANITE HYDROELECTRIC PLANT**, 1896

N. side of State Rt. 152, 0.4 mi. E. of Wasatch Blvd., 4.6 mi. SE of Holladay. Draper, 12.433890.4496550. Typical early







local generating plant. UT-4. 2 photocopies of ext. photographs (1914, 1915); 2 photocopies of int. photographs (1915); 3 ext. photos (1971); 2 int. photos (1971).

Hurricane vicinity—Washington County

HURRICANE IRRIGATION CANAL, 1893-1904

Extending from 0.8 mi. S. of State Rt. 15, 3.2 mi. NE of Hurricane, to 0.4 mi. S. of State Rt. 15, 1.7 mi. W. of Hurricane. End points: Hurricane (15 min.), 12.294000. 4116100; La Verkin 4 NW, 12.301540.4118830. Built entirely by hand, along the sheer walls of the Virgin River Canyon and Hurricane Fault, to provide water to fertile but arid farm land. UT-17. Field notes (1971); 3 sheets showing map, profiles (1971); 19 photos (1971); ref.

Magna vicinity—Salt Lake County

UTAH COPPER COMPANY (later KENNECOTT COPPER CORPORATION): MAGNA CONCENTRATOR, 1906-07

S. side of State Rt. 201, 0.8 mi. W. of Road 9180 West, 2.2 mi. NW of Magna. Magna, 12.405200.4507470. One of three



Hurricane Canal. Top: the canal along the side of the Virgin River Caryon (river is visible to the right); bottom: control gates.

plants in which ore from the Bingham Canyon mine is separated from waste and concentrated before smelting. UT-24. 4 ext. photos (1972); 4 int. photos (1972).

Ophir vicinity (Mercur)—Tooele County

DeLAMAR MERCUR MINES COMPANY: GOLDEN GATE MILL, c.1898

Mercur Canyon, 4.2 mi. SE of Ophir. Mercur, 12.397740. 4464040. Ruins, in a ghost town setting, of a large mill built for the reduction of gold ore. UT-10. 1 photocopy of photograph of mill and town (c.1910); 22 photos (1971); 11 photos of miscellaneous abandoned related structures (1971).

Orem vicinity—Utah County

TELLURIDE POWER COMPANY: NUNN HYDROELECTRIC PLANT, 1897-98

SE side of Provo River, 300 ft. W. of U.S. 189, 3.5 mi. NE of State Rt. 52, 5.3 mi. NE of Orem. Bridal Veil Falls, 12.448050.4465080. Furnished power to the Mercur mining district; site of the first long distance commercial transmis-



Mercur, c. 1910 (left), with the Golden Gate Mill at upper left. The same view today (right).

sion of 40,000-volt alternating current in the U.S. UT-2. 3 photocopies of drawings (2-c.1900, 1909); 3 photocopies of ext. photographs (c.1898, 2-c.1920?); 1 photocopy of int. photograph (c.1898); 3 ext. photos (1971); 1 int. photo (1971).

TELLURIDE POWER COMPANY: PROVO RIVER BRIDGE, c.1898?

Spanning Provo River 350 ft. W. of U.S. 189, 3.5 mi. NE of State Rt. 52, 5.3 mi. NE of Orem. Bridal Veil Falls, 12.448040.4465110. Simple one-panel pony Pratt truss bridge made of wood; perhaps originally carried a wooden flume to the Nunn plant. UT-2A. 5 photos (1971).

Orem vicinity (Olmstead)—Utah County

DENVER AND RIO GRANDE WESTERN RAIL-ROAD: PROVO RIVER BRIDGE, 1884, 1901, 1919 Spanning Provo River on W. side of U.S. 189, 2 mi. NE of



Olmstead Hydroelectric Plant: Transverse section showing turbine and generators. David Bouse, delineator. Orem. Orem 12.444480.4462760. Pratt through-truss bridge, built by the Union Bridge Co., Athens, Pa. Third location of the bridge, built originally for narrow gauge and later widened, shortened, and moved. Abandoned 1969. UT-14. Field notes (1971); 4 sheets showing map of the three locations, plan, half section/half elevation, connection details (1971); 4 photos (1971); ref.

TELLURIDE POWER COMPANY: OLMSTEAD HYDROELECTRIC PLANT, 1903-04

NW side of Provo River, 200 ft. W. of U.S. 189, 0.2 mi. N. of State Rt. 52, 2 mi. NE of Orem. Orem, 12.444470.4462810. Replaced the Nunn Hydroelectric Plant. Site of the Telluride Institute, the first corporate-sponsored electrical school in the U.S. UT-5. Field notes (1971); 5 sheets showing site plan, plan, sections (1971); 1 photocopy of site plan (1903); 3 photocopies of ext. photographs (1908, 1909, c.1920?); 4 photocopies of int. photographs (1908, 1909, other dates unknown); 11 ext. photos (1971); 9 int. photos (1971); ref. NR.

Park City-Summit County

SILVER KING MINING COMPANY: ORE LOADING STATION, 1900-01

NE side of Park Ave. opposite Crescent St. Park City East,





Olmstead Hydroelectric Plant interior in 1909 (left), and today (right).

12.457930.4499520. Terminus for a Finlayson patent wirerope aerial tramway which transported silver ore from the Silver King mine to tracks of the Denver and Rio Grande Western Railroad in Park City. Abandoned c.1950. UT-11. Field notes (1971); 6 sheets showing map of mine/ tramway/ore loading station, plans, section, elevations (1971); 9 ext. photos (1971); 11 int. photos (1971); ref.



Silver King Ore Loading Station: North and west elevations. Robert McNair, delineator.

Park City vicinity—Summit County

SILVER KING MINING COMPANY: MINE, 1892+

SW end of Woodside Gulch, 1.4 mi. SW of Park City. One of the largest early 20th-century mines in Utah. UT-22. 1 sheet showing site plan (1972).

SILVER KING MINING COMPANY: COVERED TRAMWAY

Park City West, 12.456720.4497800. Transported ore between the main shaft and the ore mill. UT-22C. 4 ext. photos (1971); 6 int. photos (1971).

SILVER KING MINING COMPANY: MAIN SHAFT AND HOIST, 1893, 1937

Park City West, 12.456660.4497710. Original hoist was driven by a Corliss steam engine which was later replaced by an electric motor. UT-22A. Field notes

(1972); 3 sheets showing plans, sections (1972); 2 ext. photos (1971); 4 int. photos (1971); ref.

SILVER KING MINING COMPANY: ORE MILL

Park City West, 12.456880.4497840. Principal ore processing structure at the mine. UT-22B. 2 ext. photos (1971); 10 int. photos (1971).

SILVER KING MINING COMPANY: WAREHOUSE

Park City West, 12.456690.4497720. Used for storage and for repair of tramway cars. UT-22D. 2 ext. photos (1971).

SILVER KING MINING COMPANY: WATER TANKS

Park City West, 12.456810.4497700 (approx). Wooden storage tanks. UT-22E. 2 photos (1971).

Riverton vicinity—Salt Lake County

SALT LAKE CITY WATER AND ELECTRICAL POWER COMPANY: JORDAN NARROWS HYDROELECTRIC PLANT, 1898-99

W. side of Jordan River, 0.6 mi. E. of State Rt. 68, 3.7 mi. S. of Riverton. Jordan Narrows, 12.420950.4480000 (approx). Supplied power to mining operations at Bingham and Mercur. Abandoned c.1905?; demolished. UT-15. 1 photocopy of plan and section (1909); 1 photocopy of ext. photograph (1909); 1 photocopy of int. photograph (1909); ref.

Exterior of the Salt Lake City Tabernacle (top), and detail of roof arch (bottom) showing wedged pins, iron bolts (at the splice and at lower left), and rawhide ties.



CHURCH OF JESUS CHRIST OF THE LATTER-DAY SAINTS: SALT LAKE CITY TABERNACLE, 1864-67

100 ft. E. of West Temple St., 300 ft. N. of South Temple St., in Temple Square. Salt Lake City North, 12.424690. 4513450. A clear span, 250 ft. long and 150 ft. wide, constructed entirely of lattice timber arches. Most connections are morticed, pinned, and wedged; iron bolts are used at



splices and at a few other critical points; rawhide ties are used to prevent boards from splitting. UT-1. Field notes (1971); 4 sheets showing site plan, framing plans, section, arch elevation, connection details (1971); 1 sheet showing isometric of arches (1974); 4 stereopairs (1971); 1 stereotriplet (1971); 1 photocopy of woodcut showing construction (1867); 3 ext. photos (1971); 2 int. photos of auditorium (1971); 10 int. photos of structure (1971); ref. NHL, NR, NHCEL.

Sale Lake City Tabernacle: Roof framing plan segments. Robert McNair, David Bouse, and Toni Ristau, delineators.



SALT LAKE PRESSED (later INTERSTATE) BRICK WORKS, 1891

E. side of 1100 East St. opposite 3100 South St. Sugar House, 12.427510.4505860. Typical brick works with beehive kilns. Abandoned 1972. UT-7. 4 ext. photos (1972); 2 int. photos (1972); ref.



Salt Lake City vicinity—Salt Lake County

MOUNTAIN DELL DAM, 1914, 1924

NW side of Interstate 80, 0.3 mi. W. of State Rt. 239, 9.2 mi. E. of Salt Lake City. Mountain Dell, 12.439210.4511110. Early multiple-arch reinforced concrete dam; designed by John S. Eastwood. UT-16. Field notes (1971); 4 sheets showing site plan, plan, section, elevation (1971); 1 stereopair (1971); 15 photos (1971); ref.

Interstate Brick Works: Cutting machine.

Mountain Dell Dam: Plan and elevation (top). Toni Ristau and Charles Madsen, delineators. South elevation (bottom).





Tooele Smelter from the west.

Tooele vicinity—Tooele County

INTERNATIONAL SMELTING AND REFINING COMPANY: TOOELE SMELTER, 1909-14

E. end of State Rt. 178, 4 mi. E. of Tooele. A flexible and efficient custom smelter able to handle a wide variety of copper and lead ores from many suppliers. Partially demolished 1972. UT-20. 5 sheets showing site plans, flow diagrams of copper and lead smelting processes (1972); 4 photocopies of ext. photographs (c.1920); 11 ext. photos (1972); ref.

TOOELE SMELTER: OFFICE BUILDING

Bingham Canyon, 12.396130.4489670. Main administration headquarters. UT-20B. 1 ext. photo (1972).

TOOELE SMELTER: POWERHOUSE

Bingham Canyon, 12.396260.4489500. Supplied power for the entire smelter; equipment remains relatively unchanged since 1915. UT-20A. 3 sheets showing plans, sections, schematic functional diagram (1972); 1 photocopy of ext. photograph (c.1920); 1 ext. photo (1972); 5 int. photos (1972); ref.

TOOELE SMELTER: RECEIVING BINS

Bingham Canyon, 12.396360.4489550. Received both copper and lead ores and concentrates from railroad cars. UT-20C. 2 ext. photos (1972); 1 int. photo (1972).





Tooele Smelter Powerhouse: Sections showing equipment (above). Amy Weinstein, delineator. View of interior (left).



Tooele Smelter Roaster Ore Bins.

TOOELE SMELTER: SAMPLE MILL

Bingham Canyon, 12.396340.4489560. Processed small representative samples of both copper and lead ore shipments for chemical analysis. UT-20D. 1 ext. photo (1972).

TOOELE SMELTER: ROASTER ORE BINS

Bingham Canyon, 12.396320.4489510. Bins for storing copper ore before roasting. UT-20E. 2 int. photos (1972).

TOOELE SMELTER: ROASTER BUILDING

Bingham Canyon, 12.396270.4489390. Housed roasters in which copper ore was heated to become calcine. UT-20F. 1 photocopy of drawing (1929); 4 ext. photos (1972).

TOOELE SMELTER: REVERBERATORY, CONVERTER, AND CASTING BUILDING

Bingham Canyon, 12.396170.4489530. Housed the copper smelting process, in which calcine from copper ore was melted, blown with air, and cast into ingots. UT-20G. 1 photocopy of drawing (1929); 2 ext. photos (1972); 5 int. photos (1972).

TOOELE SMELTER: MISCELLANEOUS ORE BIN

Bingham Canyon, 12.396340.4489620. Storage for fluxes used in lead smelting. UT-20H. 1 int. photo (1972).

TOOELE SMELTER: SINTER PLANT

Bingham Canyon, 12.396340.4489740. Fused lead ore and flux to produce sinter. UT-20I. 2 photocopies of drawings (1929); 1 ext. photo (1972); 1 int. photo (1972).

TOOELE SMELTER: CHARGE BINS

Bingham Canyon, 12.396420.4489730. Held lead ore sinter as it was mixed with coke and flux before smelting. UT-20J. 1 photocopy of int. photograph (c.1920); 1 ext. photo (1972); 1 int. photo (1972).





Tooele Smelter Roaster Building from the south (above), and Charge Bins (left).

Utah / Vermont

TOOELE SMELTER: BLAST FURNACE BUILDING

Bingham Canyon, 12.396410.4489820. Contained the lead smelting process. UT-20K. 2 photocopies of drawings (1929); 3 ext. photos (1972); 1 int. photo (1972).

TOOELE SMELTER: DROSSING PLANT

Bingham Canyon, 12.396370.4489860. Skimmed impurities (dross) from the surface of molten lead; hot metal was then cast into ingots. UT-20L. 1 photocopy of int. photograph (c.1920); 1 ext. photo (1972); 3 int. photos (1972).

Wendover and vicinity—Tooele County

LINCOLN HIGHWAY: WENDOVER CUTOFF, 1923-25

Crossing Great Salt Lake Desert for 40 mi. between Knolls and Wendover on U.S. 40. End points: Tooele (1:250,000), 12.306500.4510500; Elko (1:250,000), 12.751800.4514000. One of the last links completed on the transcontinental National Road; crosses salt and mud flats which posed particularly difficult engineering problems. UT–23. 3 sheets showing site plan, sections (1972); 5 photos (1972); ref.

Vermont

Saint Johnsbury-Caledonia County

E. AND T. FAIRBANKS AND COMPANY FACTORY, 1875+

Extending along both banks of Sleepers River, SE of Mt. Vernon St. St. Johnsbury (15 min.), 18.736620.4922180. Manufactured famous platform scales. Destroyed 1972. VT-1. 3 ext. photos (1969); 1 int. photo (1969); ref.



E. AND T. FAIRBANKS AND COMPANY: TWO-STORY COVERED BRIDGE, c.1875

Spanning Sleepers River 200 ft. SE of Mt. Vernon St. St. Johnsbury (15 min.), 18.736590.4922250. Two-aisle Town lattice truss bridge reinforced by heavy laminated timber arches; trusses and arches were continuous through two stories. Exterior was treated in a Gothic style. Destroyed 1972. VT-1A. 2 sheets showing site plan, sections (1970); 8 ext. photos (1969); 8 int. photos (1969).

MOUNT VERNON STREET BRIDGE, c.1885

Spanning Sleepers River on Mt. Vernon St. St. Johnsbury (15 min.), 18.736530.4922320. Lenticular semi-deck truss bridge, built by the Berlin Iron Bridge Co., East Berlin, Conn. VT-2. 1 photo (1969).



Upper level of the E. and T. Fairbanks Two-Story Covered Bridge (top) showing the top of one of two central reinforcing arches, Exterior (bottom).

Vermont



E. and T. Fairbanks Two-Story Covered Bridge: Sections. Eric DeLony, delineator.

Afton vicinity—Nelson and Augusta Counties

BLUE RIDGE (later CHESAPEAKE AND OHIO) RAILROAD: BLUE RIDGE (CROZET) TUNNEL, 1850-58

Through Rockfish Gap adjacent to U.S. 250, 1 mi. W. of Afton. End points: Waynesboro East, 17.687620.4212000, 17.688380.4211160. Longest railroad tunnel (4264 ft.) in the U.S. when completed; first long tunnel in the U.S. driven without vertical shafts. Designed and built along with three other elliptical tunnels on the railroad by Claudius Crozet. Abandoned 1944. VA-2. Field notes (1970); 2 sheets showing location map, portal plan, elevation (1970); 5 ext. photos (1971); 2 int. photos (1971); ref. NHCEL.



Crozet Tunnel: Interior.

CHESAPEAKE AND OHIO RAILROAD: BLUE RIDGE TUNNEL, 1942-44

Through Rockfish Gap adjacent to U.S. 250, 1 mi. W. of Afton. End points: Waynesboro East, 17.687570.4212000, 17.688380.4211120. Replaced the Crozet Tunnel. VA-5. 2 ext. photos (1971).

Alexandria—(independent city)

ORANGE AND ALEXANDRIA RAILROAD (later SOUTHERN RAILWAY): WILKES STREET TUNNEL, 1851

Under Wilkes St. between Lee and Royal Sts. Alexandria, 18.322520.4296350. Brick-lined barrel vault. Abandoned. VA-18. Field notes (1970); 3 sheets showing plan, sections, elevations (1970); ref.

Bedford (independent city) vicinity—Bedford County

ROARING RUN BRIDGE, c.1878

Spanning Roaring Run on State Rt. 637, 5.9 mi. NE of Bedford. Sedalia, 17.639300.4137490. Cast- and wrought-iron bowstring truss bridge, built by the King Iron Bridge and Manufacturing Co., Cleveland. Rare survivor of its type. Dismantled 1972. VA-7. Field notes (1970); 3 sheets showing plan, section, elevation, connection details (1970); 6 photos (1971); ref.



Roaring Run Bridge from the west (right), and detail of connections (left). Charles King, delineator.



Broadway—Rockingham County

HOLLY HILL STREET BRIDGE

Spanning Linville Creek on Holly Hill St. Broadway, 17.691490.4275810. Pony Pratt truss bridge, built by the Canton Bridge Co., Canton, Ohio. VA-16. Photos (1971) pending.

Buchanan-Botetourt County

BUCHANAN FOOT BRIDGE, c.1930

Spanning James River just W. of U.S. 11. Buchanan, 17.616800.4154300. Simple suspension bridge for pedestrians. VA-17.9 photos (1971); ref.



Buchanan Foot Bridge from the south.

Cartersville—Cumberland County

CARTERSVILLE BRIDGE, 1883-84

Spanning James River just E. of State Rt. 45 between Cartersville and Goochland County. Cartersville, 17.756940. 4173040. Pratt through-truss bridge composed of heavy timber compression members, wrought-iron tension members, and cast-iron connections; rare example of composite construction. Four of six spans destroyed 1972. VA-11. 3 stereopairs (1970); ref. NR.

Covington (independent city) vicinity—Alleghany County

HUMPBACK COVERED BRIDGE, 1835

Spanning Dunlap Creek 200 ft. S. of U.S. 60, 3 mi. W. of Covington. Callaghan, 17.583890.4183890. Adaptation of Burr trusses with curved upper and lower chords; built as part of the James River and Kanawha Valley Turnpike. Oldest surviving covered bridge in Va.; rare survivor of its type. Abandoned in 1929; restored in 1954 for pedestrian use. VA-1. Field notes (1970); 4 sheets showing location map, plan, sections, elevations (1970); 11 ext. photos (5-1963, 6-1971); 8 int. photos (5-1963, 3-1971); ref. NR.



Humpback Covered Bridge from the southwest.

Crimora vicinity—Augusta County

SOUTH RIVER BRIDGE, 1891

Spanning South River on State Rt. 612, 0.7 mi. W. of Crimora. Crimora, 17.688030.4225110. Pratt through-truss bridge, built by the Champion Bridge Co., Wilmington, Ohio. VA-19. 2 photos (1971).

Gladys vicinity (Marysville)—Campbell County

MARYSVILLE COVERED BRIDGE, 1878

Spanning Seneca Creek just W. of State Rt. 633, 4.8 mi. SW of Gladys. Long Island, 17.666800.4108120. Abandoned; spans between two isolated piers. VA-20. 1 ext. photo (1960).

Goochland vicinity—Goochland County

JAMES RIVER AND KANAWHA CANAL: LICKINGHOLE CREEK AQUEDUCT, 1827

Spanning Lickinghole Creek 0.8 mi. S. of State Rt. 6, 0.5 mi. SW of State Rt. 607, 1.5 mi. W. of Goochland. Goochland, 18.241510.4175270. Single-span stone masonry segmental arch; best preserved of the J.R. and K. Canal aqueducts. VA-10. Field notes (1970); 3 sheets showing plan, section, elevation (1970); ref.



Lickinghole Creek Aqueduct: North elevation. James DePasquale, delineator.

Great Falls—Fairfax County

GREAT FALLS (POTOWMACK) CANAL, 1786-1802 W. bank of Potomac River around the Great Falls. Built

by the Potowmack Company, first headed by George Washington, to allow river navigation to bypass the falls. VA-13. 1 sheet showing site plan (1974); 6 photocopies of photographs (1943); 1 photo of the falls (1971); ref. NHCEL.

GREAT FALLS (POTOWMACK) CANAL: LOCK 1, 1796-98

900 ft. NW of the canal mouth, 400 ft. E. of Old Dominion Dr. Vienna, 18.304730.4318710 (approx). VA-13A. Field notes (1972-74); 1 sheet showing plan, section, elevations (1974-75); 14 photos (1971). NHCEL.

GREAT FALLS (POTOWMACK) CANAL: LOCK 2, 1796-1802

400 ft. NW of the canal mouth, 300 ft. E. of Old Dominion Dr. Vienna, 18.304750.4318580 (approx). VA-13B. Field notes (1972-74); 1 sheet showing plan, elevations (1974-75); 1 photocopy of photograph (1943); 10 photos (1971). NHCEL.

GREAT FALLS (POTOWMACK) CANAL: LOCKS 3-5, 1797-1802

At the canal mouth, 600 ft. E. of Old Dominion Dr. Vienna, 18.304830.4318540. Three connecting locks cut directly into a steep rock incline. VA-13C. 1 photocopy of photograph (1943); 1 photo (1971). NHCEL.



Potowmack Canal: Lock 1, looking south.

Greenwood—Albemarle County

BLUE RIDGE (later CHESAPEAKE AND OHIO) RAILROAD: GREENWOOD TUNNEL, 1850-53

900 ft. NW of State Rt. 690, 0.9 mi. W. of State Rt. 691. Waynesboro East, 17.695360.4213940. One of four elliptical tunnels on the railroad designed and built by Claudius Crozet. VA-3. Field notes (1970); 2 sheets showing location map, portal plan, elevation (1970); 5 ext. photos (1971); ref.



Greenwood Tunnel: Southwest portal.

Lexington (independent city) vicinity—Rockbridge County

JAMES RIVER AND KANAWHA CANAL: BEN SALEM LOCK, c.1859

W. bank of Maury River just E. of U.S. 60, 1 mi. E. of Interstate 81, 3.5 mi. SE of Lexington. Lexington, 17.641630.4179340 (approx). Part of the North (now Maury) River branch of the canal, to Lexington. VA-21. 3 photos (1971).

JAMES RIVER AND KANAWHA CANAL: SOUTH RIVER DAM AND LOCK, c.1859

S. bank of Maury River, 0.3 mi. N. of South River, 0.9 mi. E. of Interstate 81, 3.3 mi. E. of Lexington. Lexington, 17.642250.4181530 (approx). Canal lock with the attached remains of a stone dam. VA-22. 13 photos (1971); ref.

Lynchburg—(independent city)

ATLANTIC, MISSISSIPPI, AND OHIO (later NORFOLK AND WESTERN) RAILROAD: JEFFERSON STREET TUNNEL, c.1870? Under Jefferson St. at intersection with Ninth St. Lynch-

burg, 17.664540.4142420. Barrel vault. Abandoned c.1970. VA-9. 3 ext. photos (1971); ref.

SIXTH STREET BRIDGE, 1871-72

Spanning Blackwater Creek at NE end of Sixth St. Lynchburg, 17.664320.4142680. Pratt deck truss bridge with three spans. Roadway removed in 1944; bridge now used only for pedestrians. VA-6. 7 photos (1971); ref.

Petersburg—(independent city)

APPOMATTOX IRON WORKS, c.1900

S. side of Old St. between Market and Sycamore Sts.





Appomattox Iron Works: North elevation (above), and interior of the machine shop (right). David Sharpe, photographer.

Petersburg, 18.286560.4123150. Manufactured agricultural and sawmill equipment; virtually all machine shop and foundry machinery survives from the early 20th century. VA-25. Field notes (1974-75); 6 sheets showing site plan, plans, sections, elevation (1975); 14 ext. photos (1974); 44 int. photos (1974); ref.

DUNLOP TOBACCO FACTORY, c.1870

N. side of Old St. opposite Market St. Petersburg, 18.286460.4123230. Oldest surviving building of a tobacco company founded in 1791. VA-29. 1 ext. photo (1974); ref.

PETERSBURG GAS LIGHT COMPANY: GASHOLDER, 1851-52, 1876

200 ft. S. of Bank St., 200 ft. E. of Madison St. Petersburg, 18.287340.4123030. Circular cast-iron frame which formerly supported a storage tank for illuminating gas; paired columns held vertical rails that guided the inverted tank as it rose and fell within the water-filled pit which sealed in the gas. Extremely rare survivor of its type. VA-14. Field notes (1970); 4 sheets showing location map, plan, elevation, details (1970); 11 photos (1971); ref.







SUBE WIEL



SOUTHSIDE VIRGINIA (later NORFOLK AND WESTERN) RAILROAD: PETERSBURG STATION, c.1855

N. side of River St. opposite Rock St. Petersburg, 18.286690.4123310. Italianate depot which served through, and survived, the Civil War. VA-28. 1 ext. photo (1974); ref.

Richmond—(independent city)

JAMES RIVER AND KANAWHA CANAL: LOCKS 1-5 (TIDEWATER CONNECTION LOCKS), 1854

NE side of Byrd St. between Tenth and 13th Sts. Richmond, 18.284700.4156760. Linked the canal basin to tidewater at the James River. Partially demolished 1974. VA-23. Field notes (1970); 8 sheets showing site plan, plans, sections, elevations (1970-71); 12 photos (1968); photos (1971) pending; ref. NR.

JAMES RIVER AND KANAWHA CANAL: FIRST GRAND DIVISION LOCKS 1 AND 2 (THREE MILE LOCKS), 1827

SW side of Pump House Dr., 0.2 mi. W. of Boulevard Bridge. Richmond, 18.280380.4157050. Replaced an earlier pair of smaller locks; named for their location three miles west of the canal basin. VA-24. Field notes (1970); 3 sheets showing plans, sections, elevations (1970); photos (1971) pending; ref. NR.

MARSHALL STREET VIADUCT, 1910-11

Spanning Chesapeake and Ohio Railroad tracks on Marshall St. between 14th and 21st Sts. End points: Richmond, 18.285400.4157220, 18.285990.4156760. Built by the Richmond and Henrico Railway Co.; incorporated an elevator from the top of the bridge down to 18th St. for the transfer of streetcar passengers. Demolished 1973. VA-27. Photos (1971) pending.

TREDEGAR IRON WORKS, 1837+, 1863

N. bank of James River, E. of U.S. 1/301. Richmond, 18.283790.4156850. One of the most important antebellum foundries in the South; the major arsenal for the Confederacy during the Civil War. VA-15. Photos (1971) pending; ref. NR.

UNION STATION TRAIN SHED, 1900-01

150 ft. NE of Main St., 200 ft. SE of 15th St. Richmond, 18.285360.4156760. One of eleven known long-span, trussed-roof train sheds surviving in the U.S. VA-4. 3 sheets showing plan, sections, elevations (1970); photos (1971) pending; ref. NR.

Union Station Train Shed: Sections. Donald Prycer, delineator.



Staunton (independent city) vicinity—Augusta County

VALLEY (later BALTIMORE AND OHIO) RAILROAD: FOLLY MILLS CREEK VIADUCT, 1874 Spanning Folly Mills Creek just W. of Interstate 81, 1.1 mi.

NE of State Rt. 654, 4 mi. S. of Staunton. Stuarts Draft, 17.668570.4217260. Four stone masonry barrel arches. Abandoned 1942. VA-8. Field notes (1970); 1 sheet showing plan, elevation (1970); 7 photos (1971); ref. NR.



Waynesboro (independent city) vicinity—Augusta County

BLUE RIDGE (later CHESAPEAKE AND OHIO) RAILROAD: CULVERT, c.1860

Spanning an unnamed stream just S. of U.S. 250, 2.2 mi. SE of Waynesboro. Waynesboro East, 17.687410.4212840. Single stone masonry barrel vault. VA-12. 1 photo (1971).

Middle River Bridge: West portal.



Weyers Cave vicinity (Mount Meridian)—Augusta County

MIDDLE RIVER BRIDGE, 1907

Spanning Middle River on State Rt. 256, 3.6 mi. SE of Weyers Cave. Grottoes, 17.687040.4236800. Pratt through-truss bridge, built by the Champion Bridge Co., Wilmington, Ohio. VA-26. 1 photo (1971).

Folly Mills Creek Viaduct: East elevation. James DePasquale and Charles King, delineators.

West Virginia

Barrackville—Marion County

BARRACKVILLE COVERED BRIDGE, 1853

Spanning Buffalo Creek on Pike St. Grant Town, 17.571520.4373040. Burr arch truss bridge originally part of the Fairmont-Wheeling Turnpike; built by Lemuel and Eli Chenoweth. WV-8. Field notes (1973); 3 sheets showing site plan, plan, sections, elevation, isometric (1973); photos (1972) pending; ref. NR.

Barrackville Covered Bridge: West elevation and section. Frederick Love, delineator.



West Virginia

Benwood—Marshall County

BALTIMORE AND OHIO RAILROAD: BENWOOD BRIDGE, 1871, 1900, 1904, 1921

Spanning Ohio River W. of U.S. 250 between Benwood and Bellaire, Belmont County, Ohio. Wheeling, 17.522230. 4428890. Existing steel Parker through-trusses, on the original piers, replaced the original double-intersection Pratt (Whipple) through-trusses which, with those of the sister bridge at Parkersburg, helped inaugurate the era of allwrought-iron long-span railroad bridges. Provided a B&O link to Chicago. WV-15. Photos (1974) pending; ref.

Bretz—Preston County

ELKINS (later MERCURY) COAL AND COKE COMPANY: BRETZ OVENS, 1904

E. side of Deckers Creek, 0.6 mi. W. of State Rt. 7/92. Masontown, 17.602000.4377860. Coke making process in



Coke making at the Bretz ovens.
beehive ovens survives essentially unchanged from the early 20th century, now used only during times of peak steel production. Rare survivor in an era of large scale coke making at steel plants in rectangular ovens with byproduct collecting apparatus. WV-7. 1 16-mm. color motion picture, 19 minutes (1973-75); photos (1974) pending.

Bridgeport—Harrison County

BRIDGEPORT LAMP CHIMNEY COMPANY: SIMPSON CREEK BRIDGE, 1924

Spanning Simpson Creek just E. of State Rt. 58. Clarksburg, 17.564170.4348360. Reinforced concrete arch bridge, built by Frank D. McEnteer to connect the main factory with a new warehouse. WV–23. Field notes (1973); 2 sheets showing site plan, plan, section, elevation (1973); photos (1974) pending; ref.

Dellslow vicinity (Richard)-Monongalia County

ELKINS COAL AND COKE COMPANY: RICHARD OVENS, 1904

N. side of Deckers Creek, 400 ft. N. of State Rt. 7/92, 0.7 mi. W. of Dellslow. Morgantown South, 17.594220.4384690. Typical beehive ovens of the type used extensively during the early expansion of the U.S. steel industry. Abandoned 1919. WV-21. Field notes (1972); 2 sheets showing site



Miners at the Richard mine about 1912 (left); elevation, plan, and section of the Richard ovens (right). Gerard Nerburn, delineator.



plan, plan, section, elevation (1972); 1 photocopy of photograph of miners and mine (c.1912); photos (1973) pending; ref.

Fairmont-Marion County

BALTIMORE AND OHIO RAILROAD: FAIRMONT BRIDGE, 1852, 1865, 1887, 1912

Spanning Monongahela River 1500 ft. E. of Tygart Valley River, 0.5 mi. E. of U.S. 250. Fairmont West, 17.573300. 4368680. Existing steel Warren through-truss bridge is the fourth on the piers; the original, the first all-iron Fink truss bridge built by the B&O, was instrumental in demonstrating the feasibility of building all-iron railroad bridges and of using pinned connections. WV-14. Photos (1972) pending; ref.

Fairmont Bridge: South portal.



NORTHWESTERN VIRGINIA (later BALTIMORE AND OHIO) RAILROAD: GRAFTON BRIDGE, 1854, 1890, c.1910

Spanning Tygart Valley River opposite Three Forks Creek, 450 ft. E. of U.S. 119. Grafton, 17.584110.4354670. One original pier, now partially supporting a deck plate girder bridge, remains from the original Fink truss bridge of timber, cast, and wrought iron. WV-11. 5 photocopies of photographs (1859, 1863, 1884, 2-1890); photos (1972) pending; ref.

NORTHWESTERN VIRGINIA (later BALTIMORE AND OHIO) RAILROAD: GRAFTON MACHINE SHOP AND FOUNDRY, 1853-54

450 ft. S. of U.S. 119, 500 ft. E. of Tygart Valley River. Grafton, 17.584360.4354730. Provided all the ironwork for the bridges, tunnels, and buildings on the B&O line from Grafton to Parkersburg. Roof trusses in the building, composed of timber, cast and wrought iron, are rare survivors of pre-Civil War tri-composite construction illustrating the transition from wood to metal in American architectural engineering. WV-10. Field notes (1972); 5 sheets showing site plan, plans, sections, elevations, truss details (1972); 9 photocopies of ext. photographs and/or views of Grafton (1857, 1859, 4-1876, other dates unknown); photos (1972) pending; ref.





Grafton Machine Shop and Foundry: North elevation (left), and detail of a roof truss (above) showing a timber beam, wrought-iron tie bars, and a cast-iron strut.

Great Cacapon—Morgan County

BALTIMORE AND OHIO RAILROAD: CACAPON RIVER VIADUCT, 1910

Spanning Cacapon River 250 ft. S. of Potomac River. Great Cacapon, 17.733230.4388880. Four stone masonry segmental arches. WV–20. 3 photos (1971).

Harpers Ferry vicinity—Washington County, Maryland

BALTIMORE AND OHIO RAILROAD: HARPERS FERRY BRIDGE PIERS, 1835-38, 1866

BALTIMORE AND OHIO RAILROAD: HARPERS FERRY TUNNEL, 1893-94, 1931

CHESAPEAKE AND OHIO CANAL: HARPERS FERRY COMPLEX

CHESAPEAKE AND OHIO CANAL: LOCK 32, 1833

CHESAPEAKE AND OHIO CANAL: LOCK 33, 1833

CHESAPEAKE AND OHIO CANAL: SALTY DOG TAVERN

See Knoxville vicinity, Maryland.

Keyser—Mineral County

BALTIMORE AND OHIO RAILROAD: KEYSER MACHINE SHOP, c.1875

250 ft. NE of State Rt. 46, 1000 ft. NW of Spring St. Keyser, 17.673820.4367660. Part of a repair complex built to supplement the B&O shops at Piedmont, six miles away. WV-22. Photos (1974) pending; ref.

Martinsburg—Berkeley County

BALTIMORE AND OHIO RAILROAD: MARTINSBURG REPAIR SHOPS

W. side of Tuscarora Creek opposite E. ends of Race and Martin Sts. Twin roundhouses, a machine shop, and a frog and switch shop built after the original Martinsburg facilities were destroyed during the Civil War. WV-1. 1 aerial photo (1970); 1 ext. photo (1970); ref.

BALTIMORE AND OHIO RAILROAD: MARTINSBURG WEST ROUNDHOUSE, 1866

W. side of Tuscarora Creek opposite E. end of Race St. Martinsburg, 18.245290.4371690. Only example surviving essentially intact of a roundhouse type built by the B&O in several places. Covered by a bell-shaped roof with a steep pitch designed to trap locomotive smoke, which was then removed by a large ventilating cupola that originally crowned the top. Roof is supported by inclined prefabricated cast-iron columns and horizontal trussed struts. A unique and remarkable structure. WV-1A. Field notes (1970); 5 sheets show-

Martinsburg Repair Shops.



ing site plan, half section, elevation, details of columns, struts, and trusses (1970); 2 ext. photos (1970); 8 int. photos (1970); ref.

BALTIMORE AND OHIO RAILROAD: MARTINSBURG EAST ROUNDHOUSE, 1870-72

W. side of Tuscarora Creek opposite E. end of Martin St. Martinsburg, 18.245300.4371600. Once identical to the West Roundhouse; the bell-shaped roof was removed in 1927, and timber structural members were



Martinsburg West Roundhouse: Section. Jeffcry Jenkins, delineator.

substituted for much of the iron. WV–1B. Field notes (1970); 3 sheets showing site plan, half section, elevation (1970); 4 int. photos (1970); ref.

BALTIMORE AND OHIO RAILROAD: MARTINSBURG MACHINE SHOP, 1866

W. side of Tuscarora Creek opposite E. end of Race St. Martinsburg, 18.245280.4371750. Second floor is suspended from the roof trusses, leaving the first floor free of columns. WV-1C. 3 ext. photos (1970); ref.

Martinsburg West Roundhouse: Interior view showing inclined columns and horizontal struts (left), exterior view from the southwest (top), and view up into the bell-shaped roof (bottom).





Seneca Glass Factory. Top: cleaning out a "pot" (melting oven, to the right, partly hidden by steam) of unusable molten glass before a new batch is prepared. Bottom: section through the blowing room, showing the glass cone with the "pots" at its base. Frederick Love, delineator.



BALTIMORE AND OHIO RAILROAD: MARTINSBURG STATION AND HOTEL, c.1855?

N. side of Martin St. at its E. end. Martinsburg, 18.245230.4371610. Only B&O structure surviving in Martinsburg from before the Civil War. WV-17. 1 ext. photo (1970).

Morgantown—Monongalia County

SENECA GLASS COMPANY FACTORY, 1896

SW side of Beechurst Ave. between Sixth and Eighth Sts. Morgantown North, 17.589040.4388240. Plant still operates, making lead crystal stemware, using essentially the original machinery and processes for blowing and cutting. First of ten glass companies established in Morgantown during the city's period of industrial development. WV-6. Field notes (1973); 4 sheets showing site plan, plans, sections, elevation (1973); 1 16-mm. color motion picture, 22 minutes (1973-75); photos (1973-74) pending; ref.



Morgantown vicinity (Easton)—Monongalia County

EASTON ROLLER MILLS, c.1870

SW side of West Run Rd., 0.2 mi. SE of intersection of U.S. 119 and State Rt. 73. Morgantown North, 17.593300. 4389280. Built originally as a sawmill and gristmill; steam power made possible the installation in 1894 of roller milling machinery which survives. WV-4. Field notes (1973); 4 sheets showing site plan, plans, sections, elevations (1973); photos (1972, 1974) pending; ref.

Easton Roller Mills: Sections (top). Belmont Freeman, delineator. Southwest elevation (bottom left), and interior view of roller mills (bottom right).



Parkersburg—Wood County

BALTIMORE AND OHIO RAILROAD: PARKERSBURG BRIDGE, 1871, 1900, 1905

Spanning Ohio River 250 ft. N. of U.S. 50 between Parkersburg and Belpre, Washington County, Ohio. Parkersburg, 17.451210.4346780. Existing steel Parker through-trusses, on the original piers, replaced the original double-intersection Pratt (Whipple) through-trusses which, with those of the sister bridge at Benwood, helped inaugurate the era of all-wrought-iron long-span railroad bridges. Provided a B&O link to Cincinnati and St. Louis. WV-12. Photos (1973) pending; ref.

Paw Paw vicinity—Allegany County, Maryland

CHESAPEAKE AND OHIO CANAL: LOCK 66 COMPLEX

CHESAPEAKE AND OHIO CANAL: LOCK 63 1/3, 1848-50

CHESAPEAKE AND OHIO CANAL: LOCK 64 2/3, 1848-50

CHESAPEAKE AND OHIO CANAL: LOCK 66, 1848-50

See Little Orleans vicinity, Maryland.

Petroleum vicinity (Volcano)—Ritchie County

WEST OIL COMPANY: ENDLESS WIRE PUMPING OPERATION

1.5 mi. S. of U.S. 50, 4.5 mi. N. of Petroleum. A late 19thcentury system of pumping several oil wells from a single power source in which a continuous loop of cable runs from the powerhouse to each well and back again. WV-9. 1 sheet showing site plan (1972); 21 photocopies of various views of Volcano (1907); photos (1973) pending; ref.

WEST OIL COMPANY: MACHINE SHOP, c.1895 Petroleum, 17.476070.4343580 (approx). Used for the construction and repair of wooden pulleys, wheels, and derricks. WV–9C. Field notes (1972); 2 sheets showing plans, section (1972); photos (1973) pending; ref.

WEST OIL COMPANY: OIL RIGS, c.1895

Petroleum, 17.476290.4343120 (approx). Three crank wheels and a walking beam transform the linear motion of the cable to a vertical pumping motion. WV–9B. Field notes (1972); 1 sheet showing isometric (1972); photos (1973) pending; ref.

WEST OIL COMPANY: POWERHOUSE (OLD BUCKEYE), 1915

Petroleum, 17.476290.4343060 (approx). At its peak, pumped 22 wells using a loop of cable ¾ mi. long. WV– 9A. Field notes (1972); 1 sheet showing plan, section (1972); photos (1973) pending.





Endless Wire Pumping Operation: Powerhouse (rear) and an oil rig (right).

Section through the powerhouse. Stephen Teeple, delineator.

Rainelle—Greenbriar County

MEADOW RIVER LUMBER COMPANY, 1909-10

E. side of State Rt. 20, 400 ft. S. of U.S. 60. Largest hardwood mill in the world from the 1930s to the 1960s; closed in 1970 with much original equipment intact. Demolished 1975. WV-24. 2 sheets showing location plan, site isometric (1974); 1 photocopy of ext. photograph (1917?); photos (1975) pending; ref.

MEADOW RIVER LUMBER COMPANY: SAWMILL

Rainelle, 17.519480.4201760. Originally contained three large band saws; at its peak produced 110,000 to 150,000 board feet of lumber per day, representing 17



Meadow River Lumber Company: Site isometric. Stephen Hawks and Kathleen Hoeft, delineators. acres of forest. WV-24A. Field notes (1974); 2 sheets showing plans, sections (1974) pending; 1 photocopy of ext. photograph (1917?); 2 photocopies of band saw machinery (1910); photos (1975) pending.

MEADOW RIVER LUMBER COMPANY: POWERHOUSE

Rainelle, 17.519450.4201780. Contained two Corliss steam engines: one to power the mill, one to produce electricity for other machinery and for the company town of Rainelle. WV-24B. Field notes (1974); 1 sheet showing plan, section (1974); photos (1975) pending.

MEADOW RIVER LUMBER COMPANY: SHOPS

Rainelle, 17.519450.4201860. Used for planing and shaping rough lumber into flooring, siding, table tops, etc., as well as for producing furniture and women's shoe heels in later years. WV-24C. Field notes (1974); 2 sheets showing plan, sections, elevations (1974); photos (1975) pending.

Rowlesburg—Preston County

BALTIMORE AND OHIO RAILROAD: ROWLESBURG BRIDGE, 1851, 1873, c.1900

Spanning Cheat River opposite E. end of Main St. Rowlesburg, 17.614910.4356050. Existing structure, on the original piers, replaced the original Fink truss bridge of timber, cast, and wrought iron. WV-13. Photos (1974) pending; ref.

Rowlesburg vicinity—Preston County

BALTIMORE AND OHIO RAILROAD: BUCKEYE RUN VIADUCT, 1852, 1884

Spanning Buckeye Run 200 ft. SW of State Rt. 72, 1.1 mi. W. of Rowlesburg. Rowlesburg, 17.612940.4356440. Originally a continuous cast-iron trestle built on top of a stone wall. The design, an early work of Albert Fink, contributed to the vocabulary of iron connection details used extensively in later U.S. railroad construction. Trestle replaced in 1884 when masonry was extended to the level of the track. WV-19. Photos (1974) pending; ref.

BALTIMORE AND OHIO RAILROAD: TRAY RUN VIADUCT, 1852, 1887, c.1900

Spanning Tray Run 300 ft. W. of State Rt. 72, 1.6 mi. NW of Rowlesburg. Rowlesburg, 17.612460.4357080. Near duplicate of the Buckeye Run Viaduct. Replaced by a stronger trestle, then by through-truss spans, and finally by an a'rched stone masonry viaduct. WV–18. 1 photocopy of portrait of Albert Fink (c.1858); photos (1974) pending; ref.

Shepherdstown—Jefferson County

THOMAS SHEPHERD'S GRISTMILL (SHEPHERD'S MILL), c.1739

n, delineator. 100 ft. N. of High St., 250 ft. E. of Princess St.



Shepherd's Mill: East and north elevations. Belmont Freeman, delineator.

Shepherdstown, 18.258890.4368410. Possesses a wroughtiron overshot water wheel, 40 ft. in diameter, installed c.1891 (originally located 150 ft. downstream) to provide greater power for the mill, perhaps for roller milling machinery. WV-5. Field notes (1973); 4 sheets showing site plan, plans, section, elevations (1973); 2 photocopies of ext. photographs (c.1900); photos (1973) pending; ref. NR.



Shepherd's Mill from the northeast, showing the wrought-iron water wheel.

Tunnelton vicinity—Preston County

BALTIMORE AND OHIO RAILROAD: KINGWOOD TUNNEL, 1849-57, 1903, 1912

Extending W. from State Rt. 26, 0.3 mi. W. of Tunnelton. End points: Newburg, 17.607460.4360510, 17.606200. 4360510. Originally lined with 3-ft.-wide cast-iron vault segments fastened at their crown by iron bolts. Abandoned c.1950. WV-16. 1 photocopy of woodcut (1858); photos (1972-73) pending; ref.

Wheeling-Ohio County

BALTIMORE AND OHIO RAILROAD: WHEELING FREIGHT STATION, 1852-53, 1873

SW corner of 14th and South Sts. Wheeling, 17.523490. 4434780. Train shed, predating the headhouse, was the last surviving structure marking the completion of the B&O to the Ohio River; its roof trusses, composed of timber, cast, and wrought iron, were rare and probably the best preserved survivors of pre-Civil War tri-composite construction illustrating the transition from wood to metal in American architectural engineering. Demolished 1975. WV-3. Field notes (1972); 5 sheets showing site plan, plans, section, elevations, truss details (1972); photos (1974) pending; ref.

BRIDGEPORT BRIDGE, 1893

Spanning W. channel of Ohio River on U.S. 40 between Wheeling Island and Bridgeport, Belmont County, Ohio. Wheeling, 17.522310.4435610. Parker through-truss bridge which, along with the Wheeling Suspension Bridge, carried the National Road across the Ohio River. Built for the Wheeling and Belmont Bridge Co. by the Wrought Iron Bridge Co., Canton, Ohio. WV-25. Field notes (1974); 3 sheets showing site plan, plan, sections, elevations (1974); photos (1974) pending; ref.





Center of Market St. between 22nd and 23rd Sts. Wheeling, 17.523520.4434140. Original half is built with wooden joists resting on exposed Doric cast-iron columns; 1890 addition is built with wooden scissors trusses resting on brick piers. WV-26. Field notes (1974); 2 sheets showing site plan, isometric (1974); photos (1974) pending; ref. NR.

WHEELING SUSPENSION BRIDGE, 1849, 1854-56, 1871-72

Spanning E. channel of Ohio River on U.S. 40 between downtown Wheeling and Wheeling Island. Wheeling, 17.523270.4435370. First bridge across the Ohio River; longest bridge in the world (1010 ft.) when completed; oldest major suspension span in the U.S. Designed and built by Charles Ellet; strengthened by Washington Roebling. WV– 2. Field notes (1972, 1974); 4 sheets showing site plan, plan, sections, elevation, structural details (1974) pending; photos (1974) pending; ref. NHL, NR, NHCEL.



Wheeling Freight Station: West elevation (top). Bruce Cavin, delineator. Detail of a roof truss (bottom left) showing connections. Gerard Nerburn, delineator. Detail of a roof truss (bottom right) showing timber, cast-iron, and wrought-iron members.

Wyoming

Cody vicinity—Park County

SHOSHONE (BUFFALO BILL) DAM, 1905-10

Crossing Shoshone River SE of U.S. 14/20, 6.5 mi. W. of Cody. Cody (15 min.), 12.644470.4928960. One of the first large concrete arch dams in the U.S. WY-2. 12 photos (1974); ref. NR, NHCEL.



Buffalo Bill Dam.

Wyoming

Fort Laramie vicinity—Goshen County

NORTH PLATTE RIVER BRIDGE, 1875

Spanning North Platte River just SE of Fort Rd. bridge, 0.9 mi. W. of Fort Laramie. Fort Laramie, 13.538570.4673030. Bowstring truss bridge with three spans, built by the King Iron Bridge and Manufacturing Co., Cleveland. Probably the oldest iron bridge in Wyoming. WY-1. 5 stereopairs (1971); 1 stereotriplet (1971); 11 photos (1971); 12 photos (1974); ref.

North Platte River Bridge from the north (left), and detail of a pier (right). William Edmund Barrett, photographer.





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As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

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NPS 155



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Sum at the Head of Pauterchet Fall, Lowell, Mass. This photograph represents the progress of the work on part of the Same between the Great Roch and the Corner, Sept. 11. 1875.