

Thomas A. Edison Laboratories
Main Street and Lakeside Avenue
West Orange
Essex County
New Jersey

HAER No. NJ-70

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE INFORMATION

Historic American Engineering Record
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THOMAS A. EDISON LABORATORIES
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HISTORIC AMERICAN ENGINEERING RECORD

THOMAS A. EDISON LABORATORIES
HAER NJ-70

Location: Main Street and Lakeside Avenue, West Orange, Essex County, New Jersey

Dates of Construction: 1887 for most buildings; 1922, water tower; 1954, replica of original "Black Maria."

Present Owner: National Park Service.

Present Use: Museum.

Significance: The Thomas A. Edison West Orange Laboratory site represents a significant era in the history of American manufacturing. Edison originally envisioned a facility devoted to pure invention, making this one of the first modern industrial research labs. The site also contained several of the manufacturing plants where Edison utilized new technology in commercial production.

Edison worked here along with a staff of about sixty assistant researchers. Among the inventions and improvements to come out of the West Orange labs after its construction in 1887 were the practical phonograph, the movie camera, the improved storage battery, the fluroscope, and synthetic rubber derived from plants.

In 1914 fire gutted the surrounding factories, but left the lab complex untouched. The West Orange labs remained in operation until Edison's death in 1931.

Historical Information

Building No. 1: Originally built in 1887; served as the Physics and Electrical Lab. Through the 1920's was used primarily as testing labs and offices. Beginning about 1947, housed historical displays.

Building No. 2: Chemical laboratory built in 1887 and used as chemistry lab until Edison's death in 1931. Deliberately maintained as historical area by Edison company thereafter.

Building No. 3: Front of building built in 1887 as supply room for the laboratory in general, but especially for the chemistry lab; rear of building houses small belt-driven woodworking shop. Front half was extensively adapted for various uses over the years; rear remains largely intact from a period of the early twentieth century and contains a woodworking pattern shop used mainly for the production of foundry patterns. Machines are belt-driven, with belting running under the floor rather than overhead. Shop is still operable and has been used by preservation specialists in reconstructing woodwork for Edison's house, Glenmont, also located in West Orange, New Jersey. See HAER No. NJ-70-B for illustrations.

Building No. 4: Built in 1887 for experiments with mining and metallurgy; used in late nineteenth and early twentieth century for phonograph record experiments and various miscellaneous laboratory projects. Adaptively used in 1982 for curatorial workshops related to preservation of Edison archives at the Edison National Historic Site.

Building No. 5: Main laboratory building built in 1887 to house machine shop, library, Edison's office, general experimental rooms, demonstration area, etc. Interior adapted for various historical and post-historical period activities; exterior largely that of post-1914 when metal-framed windows were installed. See HAER No. NJ-70-C.

Building No. 6: Originally powerhouse for Main Building, No. 5., equipped with steam boilers, engines, and electrical generators. Used in twentieth century as reception office for T.A. Edison, Inc. Currently used by Edison National Historic Site as visitor entrance and exhibit area.

Building No. 7: Corrugated metal shack which housed blacksmithing equipment for simple foundry work for laboratory; little known about regular use, but some inventory available for equipment.

Shanty: Housed supplies for the chemistry lab as well as annealing ovens for various purposes.

Vault No. 8: Poured concrete above ground built after 1914 to house company records, minutes of corporate meetings, etc..

Vault No. 12: Constructed in 1940-1941 on the site of two wood frame buildings; underground storage vault for papers and artifacts of historical interest. Built by T.E. Edison, Inc., under the presidency of Charles Edison, son of the inventor.

Thomas A. Edison Laboratories, Building No. 3
(Thomas A. Edison Laboratories, Woodworking
Pattern Shop)
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Vault No. 33: Constructed of poured concrete about 1916 to house original phonograph record wax masters and metal molds for Edison Phonograph Company.

Black Maria Reconstruction: Full-scale reproduction of Edison's first specially-designed facility for experimenting and making motion pictures. Original built in 1892; reproduction in 1956. Original was made of cheap lumber and tarpaper. Built on turntable to allow positioning of the opening in the roof toward the bright sunlight needed for movie making.

Storage Battery Building: Part of T.A. Edison, Inc. manufacturing facilities in West Orange originally built about 1906 and rebuilt after 1914 fire. Currently not part of the laboratory complex and owned privately as mixed-use light manufacturing.

Water Tower: Built in 1928 for T.A. Edison, Inc. industries which had been built up surrounding the laboratory. Maintained dry.

Sources: Written historical data by Dr. Edward Jay Pershey, Tsongas Industrial History Center, Lowell, Massachusetts, September 9, 1988.

Telephone conversation with Mary Bowling, Historian, Edison National Historic Site, July 19, 1988.

National Park Service pamphlet, "Edison National Historic Site," 1987, no place of publication given.

Historian: Robert Buerglener, HABS/HAER, July, 1988.

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ADDENDUM TO:
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FIELD RECORDS

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