

# Edison

NATIONAL HISTORIC SITE • NEW JERSEY



Here, where Thomas Alva Edison lived and worked for 44 years, are preserved the original laboratory buildings he erected in 1887 for organized research and development. Out of this cradle of wonders came hundreds of inventions and improvements which have made life easier and better for people everywhere. Edison's establishment at West Orange also set the pattern for great industrial research organizations which today serve the world.

Not far from the laboratory buildings, and part of the site, is Glenmont, the handsome country estate Edison purchased in 1886. This was his "thought bench," the starting point for many ideas which later took form at his laboratory "work bench" in the valley below.

#### EDISON: THE MAN AND HIS WORK

Born at Milan, Ohio, on February 11, 1847, Edison had only about 3 months' formal schooling. From an early age, however, he was a remarkably inquisitive boy, and, stimulated by his mother Nancy (a teacher before her marriage to Samuel Edison, Jr.), he learned rapidly on his own. When he was 10 years old, he had a small working laboratory in the basement of his home; when he was 12, he had another in a baggage car on the Grand Trunk Railway, where he worked as a newsboy and a "candy butcher." Earnings in this first job provided money for books to further his ruling passion for study and experiment.

Edison learned telegraphy in 1862, and developed his first patented invention, an electrical vote recorder, in 1868. The next year he produced an improved stock ticker which he sold for \$40,000. In 1876, after a period in which he manufactured many improved telegraph instruments of his own design, he moved to Menlo Park, N.J. There he built his first large laboratory, gathered round him a group of capable

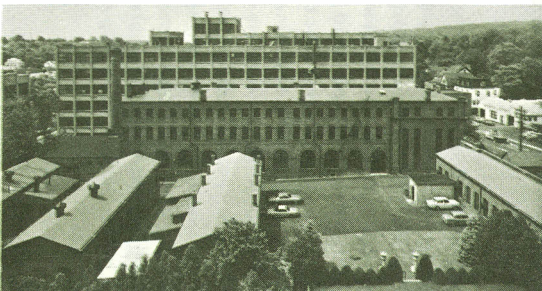
assistants, and went into the "inventing business" on a more extensive scale, creating his fabulous phonograph as well as practical electric lighting and power systems. By the time Edison was 30 years old, he was already called "the Wizard of Menlo Park."

Mary Stilwell, the inventor's first wife, died in 1884. Two years later, Edison married Mina Miller, and the family took up residence at Glenmont, in the Llewellyn Park section of West Orange. Nearby he built a laboratory ten times larger and better equipped and staffed than the one at Menlo Park.

Out of West Orange came the motion picture camera, vastly improved phonographs, and both silent and sound movies. Other Edison patents covered electric motors and generators, incandescent and fluorescent lamps, continuous nickel and copper plating, a method of depositing metals in a vacuum, magnetic separation and briquetting of iron ore, processes for making carbolic acid from coal tar, and a nickel-iron alkaline electric storage battery which alone required 50,000 experiments.

In addition to his inventions and his work in industrial development, Edison made two significant discoveries in pure science. One was "etheric force," the electromagnetic waves later used in radio transmission; the other, a fundamental phenomenon of electronics which has since become known as the "Edison Effect" and which led to a world-wide advance in communications and space technology.

To the end of his days Edison retained an insatiable zest to discover and invent new things, resulting in 1,093 U.S. patents. He also had many foreign patents to his credit. His last ambitious undertaking, to find a practical domestic source of natural rubber, was almost complete when he died at Glenmont on October 18, 1931.



## THE WEST ORANGE LABORATORY

At the West Orange Laboratory, into which he moved on Thanksgiving Day, 1887, Edison could "build anything from a lady's watch to a Locomotive." There, for the next 44 years, he and his carefully chosen associates pursued their goal of inventing and developing things that "every man, woman, and child in the world wanted," and would buy at prices they could afford.

Still preserved at West Orange are the main laboratory building and five smaller red-brick structures that comprised the physics laboratory, chemical laboratory, chemical storage room and pattern shop, metallurgical laboratory, and powerhouse boilerroom. Other buildings, some of which still survive, were added later. The main archives building and museum storage vault were erected after Edison's death, as was the full-sized replica of his original tar-papered "Black Maria," the first motion picture studio.

The interiors of many of these structures are little changed from their appearance in the inventor's own time. Some contain exhibits like his original tinfoil phonograph of 1877, his 1889 "Strip Kinetograph" and other motion picture apparatus, and early electric light and power equipment. Edison's machine shops and stockroom are still here, as well as the double-tiered library containing his own desk and the cot on which he used to take catnaps when working round the clock. The chemical laboratory is little changed from its appearance in 1927-31, when Edison was conducting his rubber experiments.

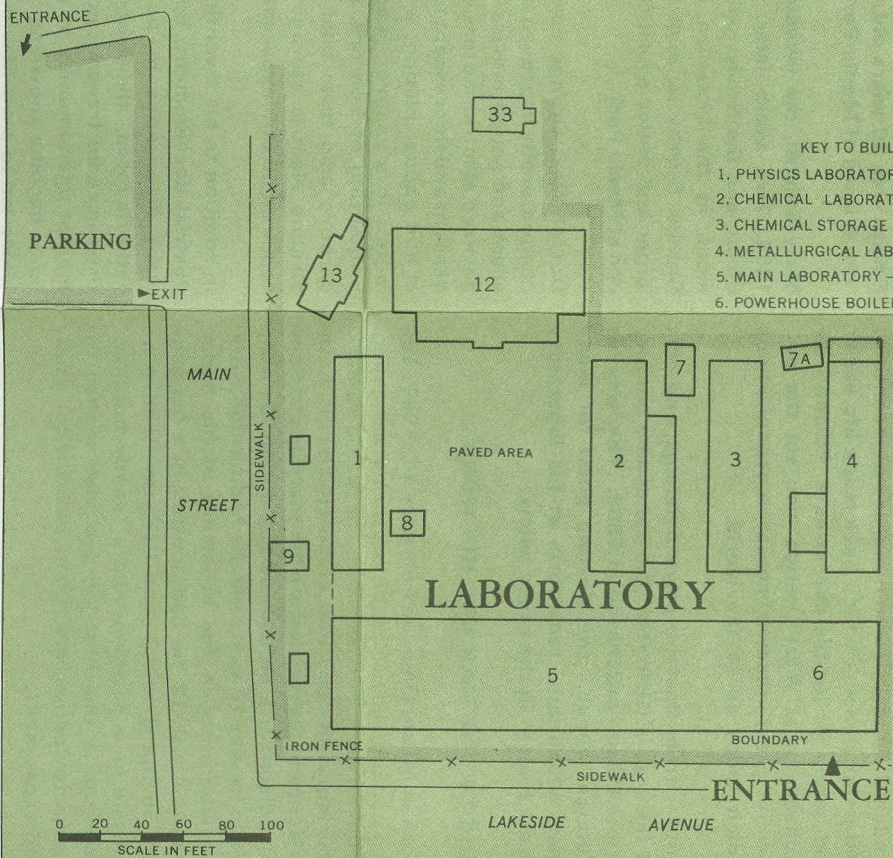
## GLENMONT

Glenmont, the 23-room Edison home, reveals the domestic side of the inventor's life. Here he found relaxation and time to generate new ideas for testing at the laboratory. The house, built for a New York executive in 1880 and predominantly Victorian in architectural style, today looks much the same as when the Edisons occupied it. Almost all the original furnishings remain in place, and include family portraits and other fine paintings and prints; books by the hundreds; heirlooms and period pieces; gifts from the great and near-great of many lands; and all the little accessories of living that make a house a home.

The beautifully landscaped 13½-acre estate also contains a barn, garage, greenhouse, gardener's cottage, potting shed, and other outbuildings. On the grounds, in a quiet, green bower, are the graves of Thomas and Mina Edison.

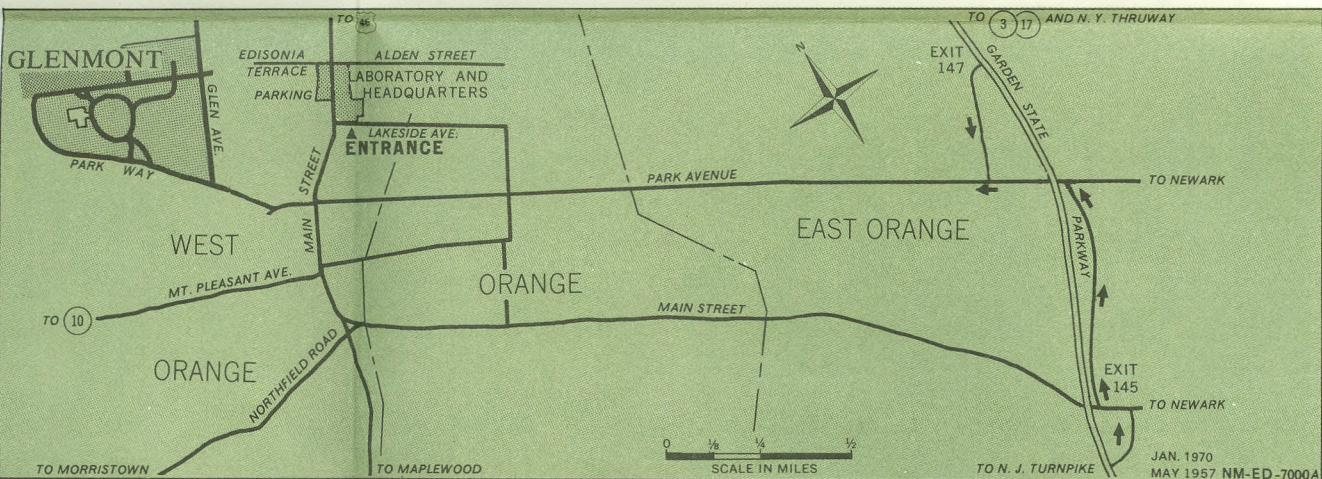
# EDISON NATIONAL HISTORIC SITE

WEST ORANGE, NEW JERSEY



## KEY TO BUILDINGS (HISTORICAL NUMBERING)

1. PHYSICS LABORATORY (NOW MUSEUM AND ADMINISTRATIVE OFFICES)
2. CHEMICAL LABORATORY
3. CHEMICAL STORAGE ROOM AND PATTERN SHOP
4. METALLURGICAL LABORATORY
5. MAIN LABORATORY —LIBRARY AND MACHINE SHOPS
6. POWERHOUSE BOILERROOM (ENTRANCE)
7. BLACKSMITH SHOP
- 7 A. WOOD STORAGE BUILDING
8. SMALL STORAGE VAULT
9. GATE HOUSE
12. MAIN ARCHIVES AND MUSEUM STORAGE VAULT
13. BLACK MARIA (REPRODUCTION OF FIRST MOTION PICTURE STUDIO)
33. BLUE AMBEROL VAULT



## **ABOUT YOUR VISIT**

Site headquarters, on Main Street at Lakeside Avenue in West Orange, is 2 miles west of Garden State Parkway and half a mile north of Interstate 280. Guided tours of the laboratory are conducted continuously from 9:30 a.m. to 4:30 p.m. daily. Tours of Glenmont begin on the hour, 10 a.m. to 4 p.m., Monday through Saturday except holidays by arrangement at headquarters. The laboratory is closed on Thanksgiving, December 25, and January 1. Reservations for school and other group visits should be made well in advance.

## **ADMINISTRATION**

Edison National Historic Site is administered by the National Park Service, U.S. Department of the Interior. A park manager, whose address is Box 126, Orange, NJ 07051, is in charge.

As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park, and recreational resources. Indian and Territorial affairs are other major concerns of America's "Department of Natural Resources." The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States—now and in the future.

**National Park Service**

**U.S. DEPARTMENT OF THE INTERIOR**