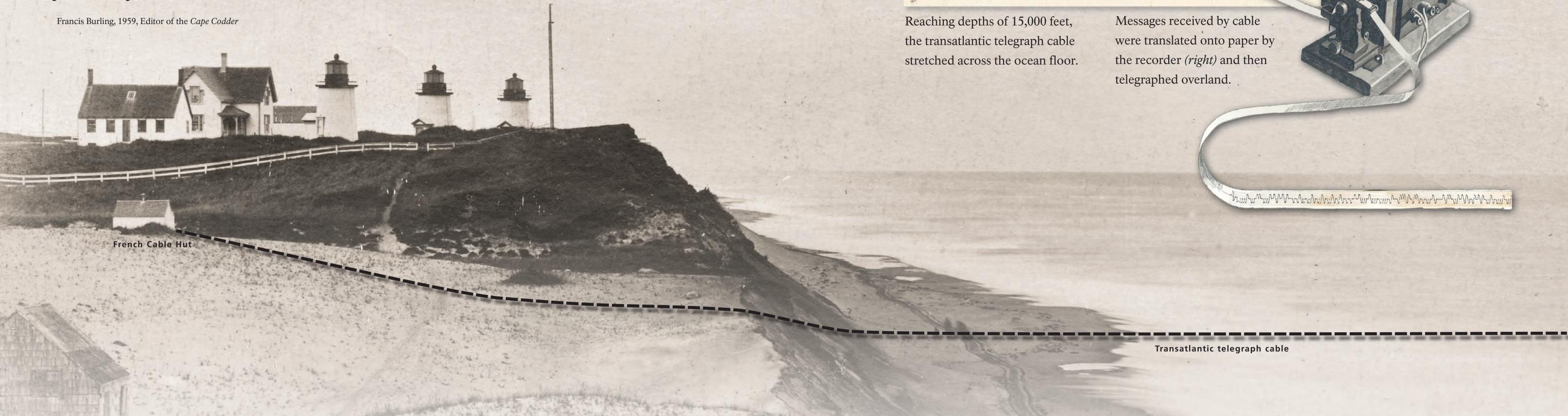




# The Long, Black Cable

*The long, black cable has carried countless thousands of messages of international finance, personal hope and disaster, and news of war and peace. Now it lies cold and dormant on the deep floor of the wide Atlantic.*

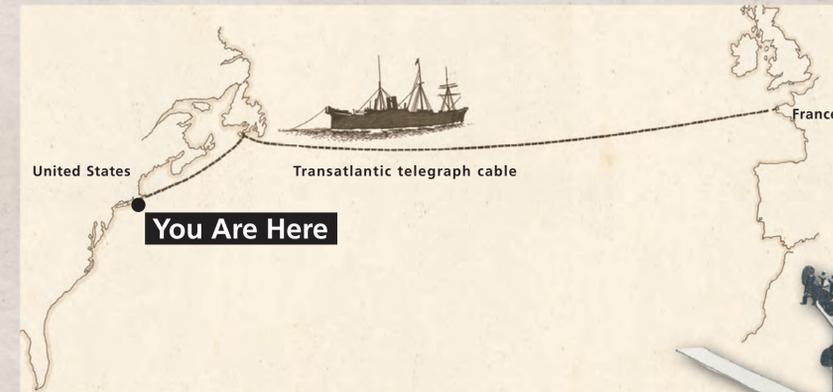
Francis Burling, 1959, Editor of the *Cape Codder*



If you stood here on November 16, 1879, you would have joined the thousands who cheered as the steamer *CS Faraday* delivered from France the last thread of a 3,000-mile transatlantic telegraph cable. It was one of the first cables to connect the United States with Europe. America could now communicate with Europe in minutes, not weeks.

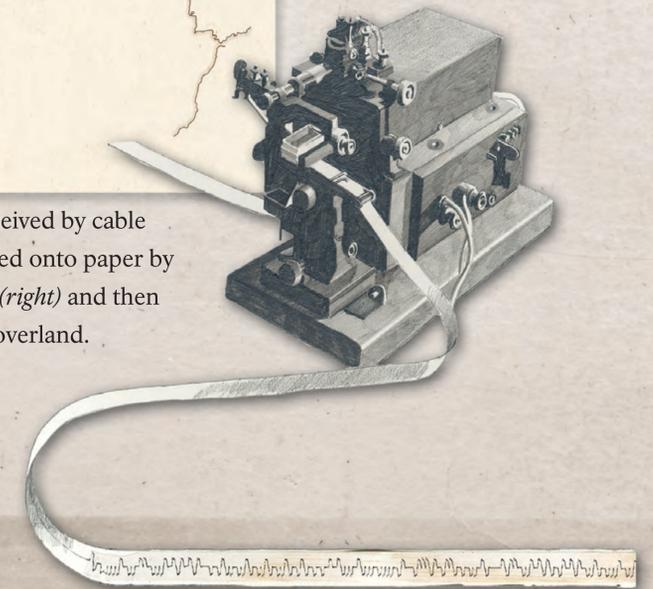
The small French Cable Hut in front of you housed the end of the transatlantic cable. Built in 1893 the hut was restored and moved back from the receding cliff in 2004. Remnants of the cable are displayed at Salt Pond Visitor Center in Eastham, Massachusetts.

For 24 years this and other cables brought messages and daily news to cities across America. Then, in 1903, six miles north of here Guglielmo Marconi ushered in a new age of communication by sending the first transatlantic *wireless* message. Cable technology remains in use today for some forms of communication.



Reaching depths of 15,000 feet, the transatlantic telegraph cable stretched across the ocean floor.

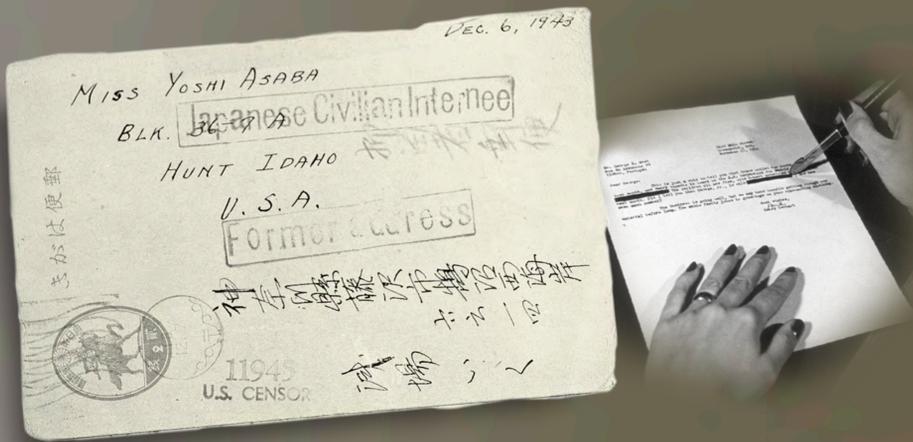
Messages received by cable were translated onto paper by the recorder (*right*) and then telegraphed overland.





# Censored Mail

*The few letters that we did receive were inked out in black. And some . . . had holes, I think they cut it out with razors so you had a holey letter.* MARION TSUTAKAWA KANEMOTO



The censor's stamp is affixed to this postcard sent from Japan to Minidoka internee Yoshi Asaba of Block 36.

A civilian wartime censor cuts text from a letter using a razor knife.

The camp's internee-run post office stood here. Hunt Post Office was a branch of the Twin Falls U.S. Post Office. Mail was the internees' main link with the outside world—with family members in Japan, other camps, or in locations outside the exclusion zones. It was also how they held onto their homes and businesses in the exclusion zones. They had mortgages to pay, bank accounts to maintain, and businesses to run.

However, mail was subject to censorship by the U.S. Army and the Office of Censorship—set up when the war started. Censors often read international and domestic mail, and blocked out or cut out parts of letters that the government thought were sensitive or inflammatory. Censorship significantly delayed mail deliveries and invaded privacy.



Photo 1943



# Swatting Mosquitoes

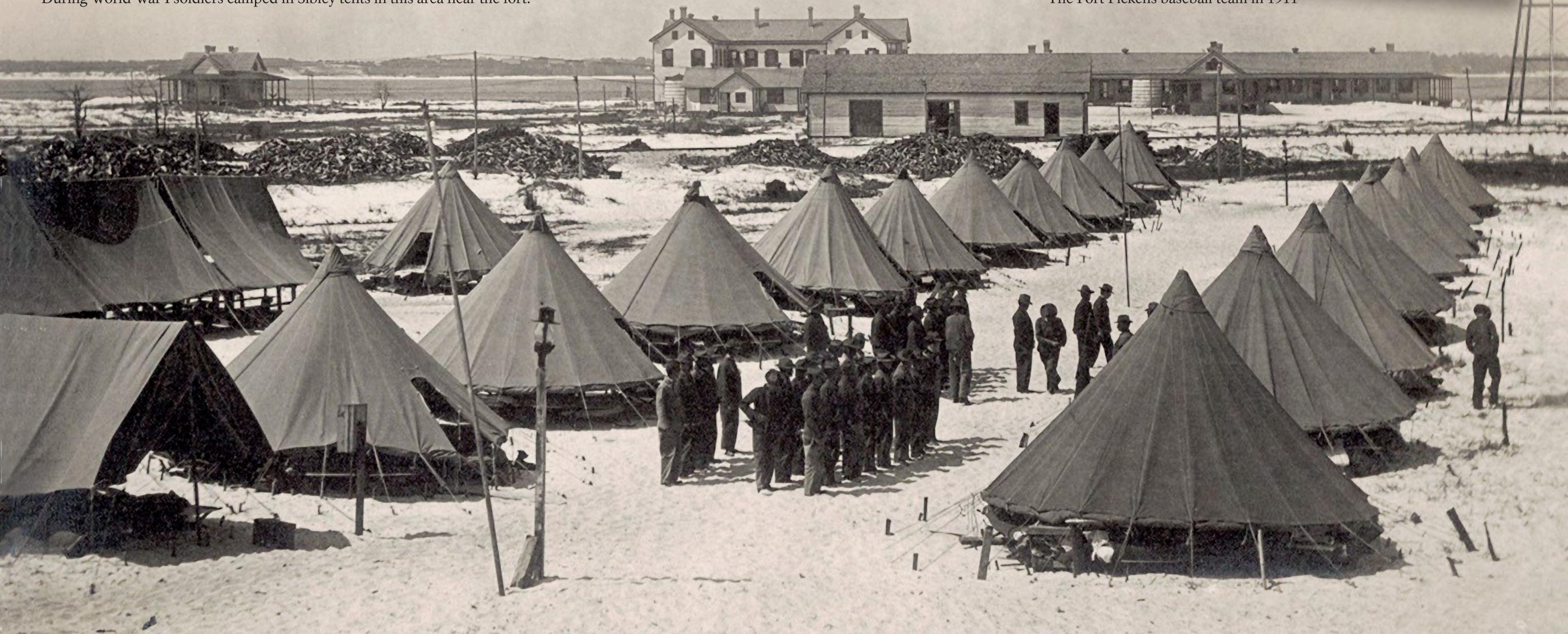
Isolation and boredom, snakes and biting flies—many of the soldiers stationed at Fort Pickens in the 1800s and 1900s felt they had been sent to the end of the Earth and forgotten. They spent hours on end in the sweltering sun standing watch, conducting artillery

drills, maintaining equipment, and swatting mosquitoes. In their leisure time they played cards, read letters and newspapers sent from home, swam in the gulf, fished, and played ball games. Some of them even hunted alligators despite official prohibitions.



The Fort Pickens baseball team in 1911

During World War I soldiers camped in Sibley tents in this area near the fort.





# Mingus Mill

*You didn't make it without corn. . . . everyone ate cornmeal, sometimes two and three times a day.*

George Moore, local resident

For 50 years, nearby farmers brought their corn and wheat to Mingus Mill, built in 1886. The miller usually charged a toll of one-eighth of the grain the customer brought for milling. The gristmill's stone was turned by a water-powered, cast-iron turbine. From water pressure built up in the penstock at the flume's end, the turbine generated 11 horsepower—enough to run all the mill's machinery. On the second floor, the smut machine blew wheat grain free of debris, while the bolting chest separated ground wheat into grades by sifting it through fine to coarse bolts of cloth.



Mingus was the largest gristmill in the Smokies. Its 200-foot-long wooden flume brings water to the mill's turbine. As early as the 1820s, more progressive millers began using turbines to power their mills rather than waterwheels.



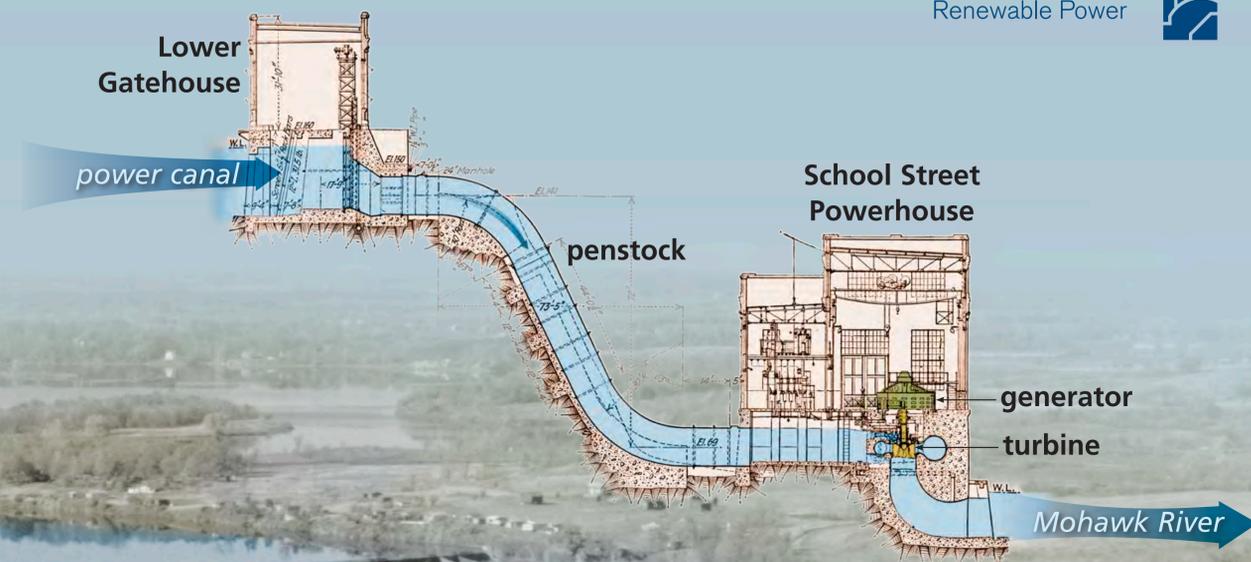
The Mingus family sold the mill to the National Park Service in the 1930s.



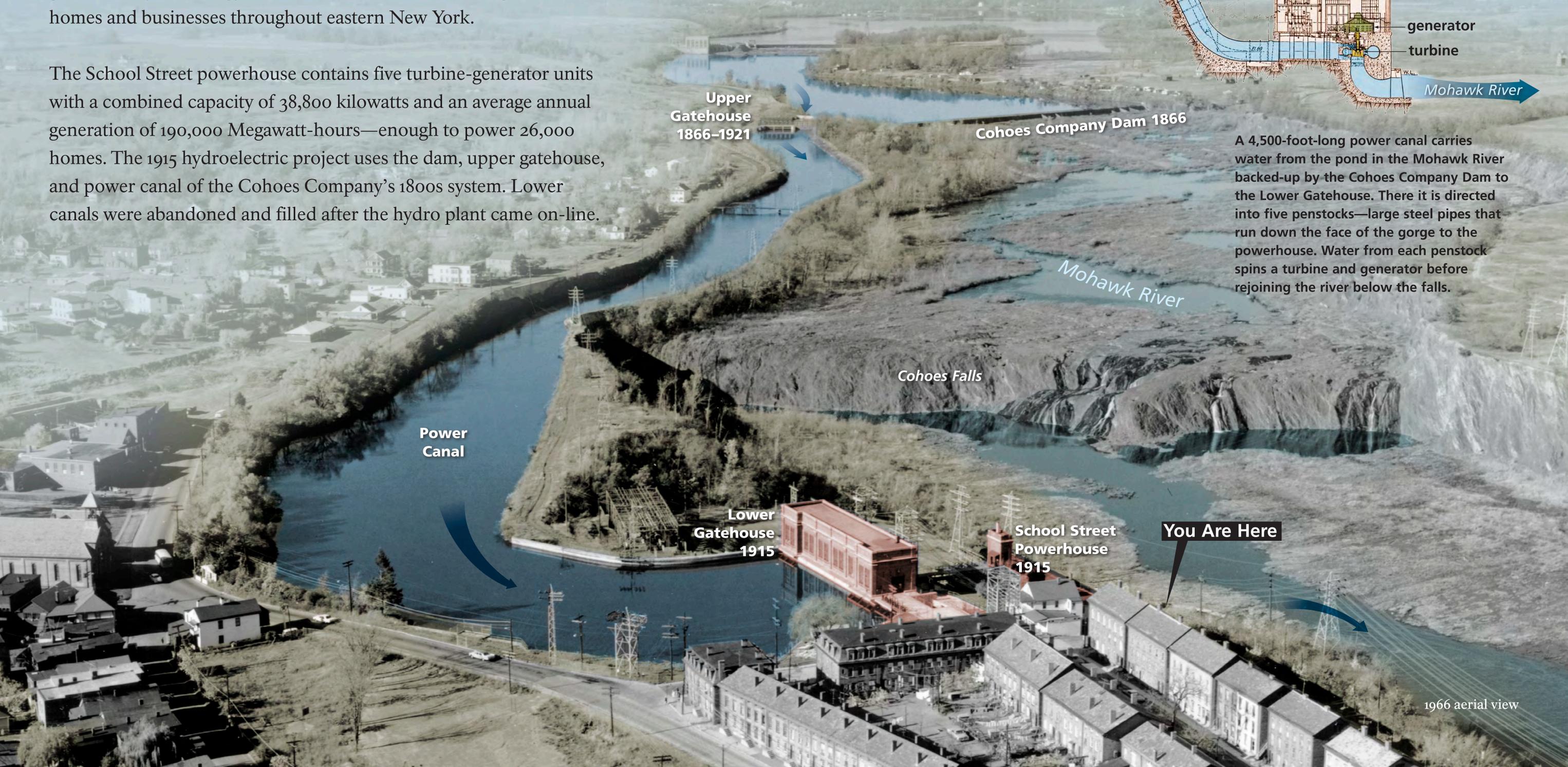
# Water for Power

The power of falling water built Cohoes, where mills and factories on power canals used waterpower to manufacture textiles and metal goods. Today the energy of Cohoes Falls is carried through wires to homes and businesses throughout eastern New York.

The School Street powerhouse contains five turbine-generator units with a combined capacity of 38,800 kilowatts and an average annual generation of 190,000 Megawatt-hours—enough to power 26,000 homes. The 1915 hydroelectric project uses the dam, upper gatehouse, and power canal of the Cohoes Company's 1800s system. Lower canals were abandoned and filled after the hydro plant came on-line.



A 4,500-foot-long power canal carries water from the pond in the Mohawk River backed-up by the Cohoes Company Dam to the Lower Gatehouse. There it is directed into five penstocks—large steel pipes that run down the face of the gorge to the powerhouse. Water from each penstock spins a turbine and generator before rejoining the river below the falls.



1966 aerial view



The Wright brothers were in their twenties when they became interested in aeronautical science. Five adults lived here in the years that Wilbur and Orville debated their ideas about how to develop a flying machine around the dining room table. Their mother died of tuberculosis in 1889, when the brothers were teenagers.

Milton Wright headed a family of young adults that put a high premium on family unity. To an extraordinary degree the four Wrights who lived in this house trusted, depended on, and defended each other rather than look for help from outsiders.

# *We were always happy on Hawthorne Street...*

Katharine Wright, 1915



Orville

Katharine

## Who Lived Here

**Bishop Milton Wright (1828–1917)** was an editor, a theology professor, and a conservative minister of the United Brethren in Christ (Old Constitution).



**Wilbur Wright (1867–1912)** was the third of seven children. Wilbur died of typhoid fever in 1912 here on Hawthorne Street.



**Orville Wright (1871–1948)** was the sixth of seven children. Neither Orville nor Wilbur Wright ever married.



**Katharine Wright (1874–1929)** was the youngest of seven children. When her two brothers first flew in 1903, Katharine was 29 years old.



**Carrie Kayler Grumbach** kept house for the Wrights from 1900 to 1948.

It was a comfortable house for its day, filled with Victorian furniture, books, and visitors. Wilbur and Orville's spirited discussions around the dinner table here led to the solutions they needed to invent the airplane.



To take off by engine power alone in Dayton's light winds, the Wright brothers had to lay out as much as 240 feet of wooden rails. If the breeze shifted, the track had to be moved and pegged down again to face the new wind direction.

But after they built a catapult in September 1904, the Wrights could launch their flyer with only 60 feet of rail.

#### Catapult-assisted Takeoffs

A team of horses pulled a 1600-pound counterweight to the top of the wooden derrick. When the weight fell sixteen feet, it added enough speed to get a flying machine airborne—regardless of wind direction and strength.

The catapult in front of you is a replica.

# *A Starting Device*

*It is evident that we will have to build a starting device that will render us independent of wind and are now designing one....*

Wilbur Wright, August 8, 1904





# Miss that Tree!

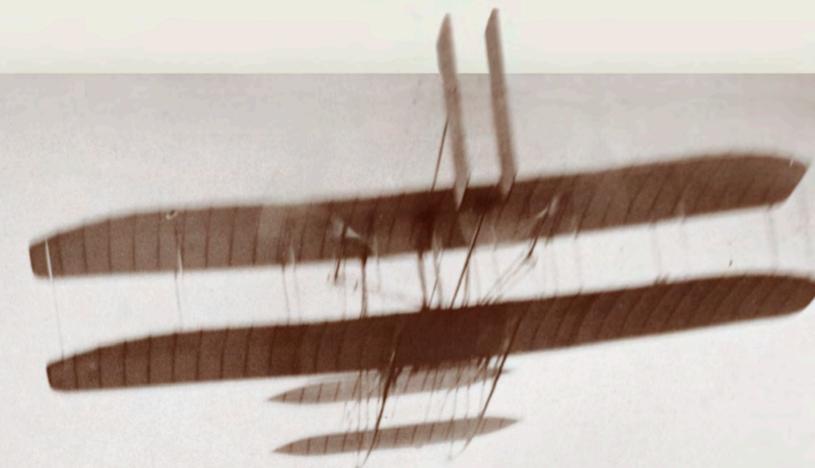
Before tackling the problems of how to fly, Orville and Wilbur had been bicycle enthusiasts. The Wrights knew that a cyclist has to lean into high-speed turns. That same tilting movement in a flying machine is called banking. Here at Huffman Prairie Flying Field, the Wrights taught themselves how to bank their airship to make turns.

Mastery of banked turns — combining rudder moves with wing warping — was one of their most important steps toward developing what the brothers called *a machine of practical utility*.

An unexpected gust of wind and a thorn-laden tree, like the ones you see far ahead in this field, helped Orville Wright figure out how best to handle his controls to turn his flying machine.

The honey locust trees the Wright brothers flew around in 1904 are gone from Huffman Prairie Flying Field. The young locust trees you see today may be their great grandchildren.

The honey locust trees the Wright brothers flew around in 1904 are gone. The young locust trees you see today may be their great grandchildren.



*In one flight in 1905, while circling around a honey locust tree at a height at about 50 feet, the machine suddenly began to turn up on one wing, and took a course toward the tree.... not relishing the idea of landing in a thorn tree, [I] attempted to reach the ground. The left wing, however, struck the tree... and carried away several branches.*

Orville Wright

