

Dayton Aviation Heritage

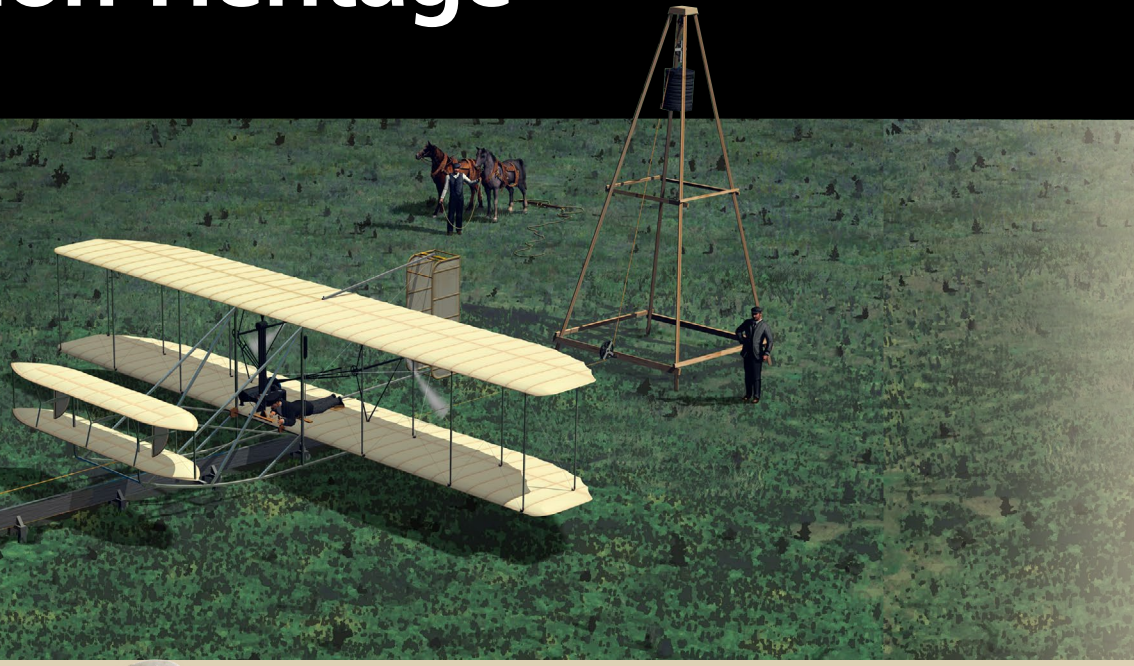
Dayton Aviation Heritage
National Historical Park
Ohio

National Park Service
U.S. Department of the Interior



*What dreams we have
and how they fly.*

—Paul Laurence Dunbar



NPS / CHRIS CASADY

Dreamers and Doers

Dayton Aviation Heritage National Historical Park commemorates local heroes Orville and Wilbur Wright, who helped us leave the ground behind and see our lives as never seen before. They turned cloth, wood, bicycle chains, and gears into the first airplane.

The day before Wilbur left on his first trip to Kitty Hawk, North Carolina, he wrote his father:

While I am taking up the investigation for pleasure rather than profit, I think there is a slight possibility of achieving fame and fortune.



SPECIAL COLLECTIONS AND ARCHIVES,
WRIGHT STATE UNIVERSITY

Wilbur (1867–1912, *right*) and Orville (1871–1948, *left*) grew up in a family of talkers and tinkers. While helping his father print church bulletins, Wilbur invented a machine to do the tiresome work of folding paper. His younger brother Orville built and sold kites. Later, Orville opened a print shop while still in high school; Wilbur joined him in the business. When they discovered the fun of bicycling, they started a bicycle business. By 1896 people in Dayton, Ohio, were riding bikes built by the Wrights with improved brakes.

The Wright brothers didn't especially stand out in Dayton. Hundreds of inventors lived here. Few people knew about the brothers' dreams of flying.

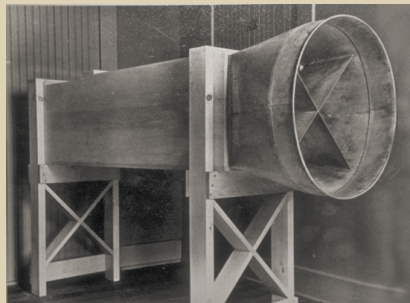
No one paid much attention as they flew big kites and studied how birds' wings moved. The brothers tested, talked, and tinkered, using their bike-building skills to build experimental gliders. By 1900 they were ready to test their glider in a wide-open, windy place.



NPS

The brothers also built a better bicycle with improved brakes.

Figuring Out Flight



The Wright brothers' wind tunnel tested wing designs.

ABOVE—SPECIAL COLLECTIONS AND ARCHIVES, WRIGHT STATE UNIVERSITY
BELOW—DAYTON METRO LIBRARY

In 1900 and 1901 the brothers traveled to Kitty Hawk, North Carolina, to test their gliders in strong, steady wind. Their many failures caused them to question key formulas. They spent weeks scribbling, thinking, and testing models in a wind tunnel. Finally, they found the error. Their 1902 glider flew well during testing and those lessons helped during construction of the 1903 model. On December 17 Orville made the first successful flight, in Kitty Hawk—12 seconds covering 120 feet of ground. This was the flight that made history, but they weren't done yet.

Back in Dayton, they tinkered, talked, tested—and crashed. With each crash, they figured out another crucial part of flying. They learned how to warp the wings to turn the plane. They fiddled with the elevator, the structure in front of the pilot that helps lift the plane into the air. By October 1905 they were staying aloft until they ran out of fuel: 39 minutes and 24 miles. They flew in straight lines, circles, and graceful arcs—almost like a bird.

The Wright brothers discuss a problem that arose during a test flight. Far right: The brothers and sister Katharine visit Europe in 1909.

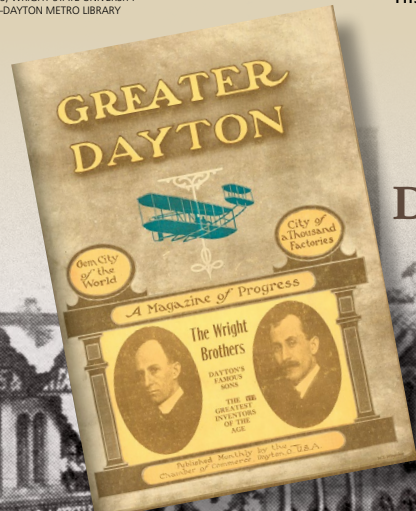


SPECIAL COLLECTIONS AND ARCHIVES,
WRIGHT STATE UNIVERSITY



SMITHSONIAN INSTITUTION, NATIONAL AIR AND SPACE MUSEUM
(NASM 2003-12981)

Dayton Celebrates!



DAYTON METRO LIBRARY

After proving they could fly, the Wright brothers traveled through Europe demonstrating their airplanes and trying to sell them. They received the first orders in 1909 and came home to Dayton. The city celebrated for three days.

In the next year, they incorporated the Wright Company, built an airplane factory, opened a flight school, and started an exhibition flying team. They also had to deal with people stealing their ideas, so Wilbur traveled frequently to consult with lawyers and appear in court. Some say he died trying to protect their invention—he came home sick from a trip to Boston in 1912 and died soon after.

Orville soon sold the company and built a personal laboratory where he tinkered with small inventions the rest of his life. He also served on the National Advisory Committee on Aeronautics, the predecessor to the National Aeronautics and

Space Administration (NASA). Dayton threw a grand party for the Wrights in 1909 (left). Ten thousand people cheered as they passed by. Workers were soon building airplanes in the Wright Company's new factory (right).

Space Administration (NASA). When he died in 1948, he left behind a world transformed by a fragile plane made of wood and fabric that he had built with his brother in Dayton, Ohio.



Marjorie Stinson (near left), the youngest woman to earn wings, did so at the Wright School of Aviation. Both she and her sister Katherine (far left) were pilots.

LEFT—NATIONAL AIR AND SPACE MUSEUM
BELOW—SPECIAL COLLECTIONS AND ARCHIVES,
WRIGHT STATE UNIVERSITY



Paul Laurence Dunbar: Dayton's Beloved Poet

Dayton, Ohio, fostered another talent in the late 1800s, Paul Laurence Dunbar (1872–1906), whose genius was in words. He was already the high school newspaper editor, president of the literary society, and reciting his poetry publicly when he met Orville, who was in the same class. Their ambitions entwined after high school for a few years as the Wrights printed Dunbar's short-lived newspaper, *The Dayton Tattler*, and the tickets and advertisements for his poetry performances.

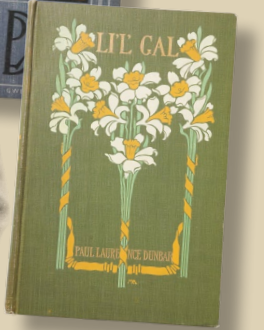
He grew up listening to his parents' stories as enslaved workers; he began writing poems when still a child. By the time he was in high school, Dunbar was known as a promising young poet. After school, though, he was denied positions with Dayton newspapers because of his race. So he operated an elevator. He used this job well—talking to people who rode the car, listening to their words, scribbling notes and poems in quiet moments. He published his first book, *Oak and Ivy*, in 1892.

By the time he died of tuberculosis at age 33, Dunbar had enthralled audiences from Denver to London. In his lifetime, his most famous poems were written in the African American dialect of the time. Today he is better known for his poems in standard English. Novelist and poet Maya Angelou took her first autobiography's title from one of Dunbar's verses, "Sympathy":

*It is not a carol of joy or glee,
But a prayer that he sends from his heart's deep core,
But a plea, that upward to Heaven he flings —
I know why the caged bird sings!*



OHIO HISTORICAL SOCIETY



BOOKS—SPECIAL COLLECTIONS AND
ARCHIVES, WRIGHT STATE UNIVERSITY

Visiting Dayton's Sites of Flight and Poetry

Dayton Aviation Heritage National Historical Park, established in 1992, includes six sites. Each highlights a different part of the Wright Brothers' story. Hours vary and several sites charge a fee. Please check the information for each site before

1 WRIGHT CYCLE COMPANY AND VISITOR CENTERS

Begin your visit at the Wright Cycle Company (*right*) and the adjacent Hoover Block that houses the Wright-Dunbar Interpretive Center and the Aviation Trail Visitor Center. See exhibits on every phase of the Wrights' lives, aviation history in the Dayton area, and the life and works of poet Paul Laurence Dunbar. Located at South Williams and West Third streets. Contact the park or check the park website for hours and information.



2 PAUL LAURENCE DUNBAR HOUSE STATE MEMORIAL

Dunbar became a well-known poet while the Wright brothers were still testing their planes. In 1904 he bought this house for his mother, Matilda. He lived here after he became too sick with tuberculosis to travel and perform. Matilda preserved the house much as Paul knew it, and lived here until she died in 1934. Free tours on select days. Call 937-224-7061 for information. 219 N. Paul Laurence Dunbar St.

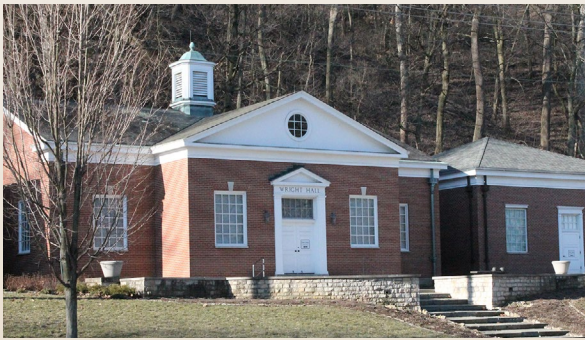


3 WRIGHT COMPANY FACTORY

In 1910 the Wright Company opened the first factory in the United States designed especially for building airplanes. Students at the Wright School of Aviation came here to learn plane controls on a simulator. The factory is not currently open to the public.

4 WRIGHT BROTHERS NATIONAL MUSEUM

The National Museum, in Carillon Historical Park, has exhibits about the Wright brothers' lives and work. The centerpiece is the 1905 Wright Flyer III, which Orville Wright helped restore (*above right*). See the Van Cleve bicycles designed by the Wright brothers. Open daily except some winter holidays. Fee. For information call 937-293-2841 or visit DaytonHistory.org.

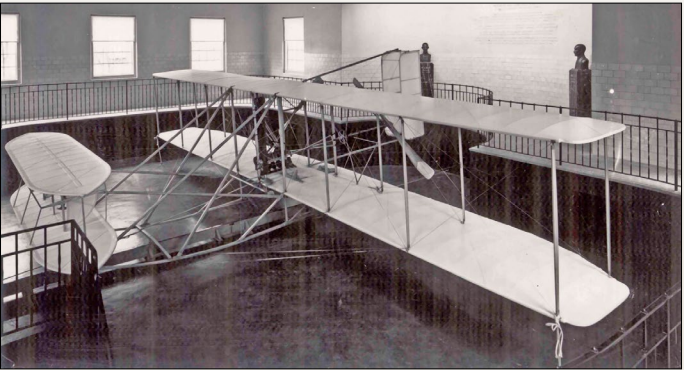


you visit. The park is part of the National Aviation Heritage Area, established by the US Congress in 2004 to recognize the Dayton region's role in aviation history and development.

6 HUFFMAN PRAIRIE FLYING FIELD AND INTERPRETIVE CENTER

The Wrights made hundreds of test flights over this 84-acre pasture. View exhibits at the interpretive center and enjoy a walk on the historic flying field and the largest prairie remnant in Ohio. Also visit the Wright Memorial, erected by the Dayton community to honor the brothers. Huffman Prairie Flying Field is part of the Wright-Patterson Air Force Base. Contact the park or go to the park website for hours.

You can also visit the National Museum of the United States Air Force and the National Aviation Hall of Fame, which are nearby. Like Dayton Aviation National Historical Park, they are part of the National Aviation Heritage Area.



The 1905 Wright Flyer III has long been a highlight of the Wright Brothers National Museum.



5 HAWTHORN HILL

Wilbur, Orville, and Katharine—the unmarried Wright siblings—designed this house for themselves. Wilbur died before it was built; Katharine eventually married and moved away. But the house was often filled with Orville's nieces, nephews, and their children. A reservation is required to tour this National Historic Landmark. Fee. For information call 937-293-2841 or visit DaytonHistory.org



ACCESSIBILITY We strive to make facilities, services, and programs accessible to all. For information go to a visitor center, ask a ranger, call, or check the park website.

FIREARMS For firearms regulations check the park website.

Emergencies call 911

MORE INFORMATION Dayton Aviation Heritage National Historical Park 16 S. Williams St. Dayton, OH 45402 937-225-7705 www.nps.gov/daav

Dayton Aviation Heritage National Historical Park is one of over 425 parks in the National Park System. To learn more, visit www.nps.gov.

National Park Foundation. Join the park community. www.nationalparks.org