# 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

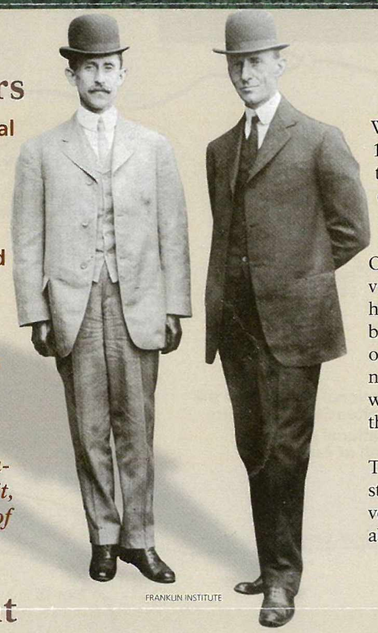
NPS / CHRIS CASADY

## 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.*



FRANKLIN INSTITUTE

Wilbur (1867–1912) and Orville (1871–1948) grew up in a family of talkers and tinkerers. 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 that featured improved brakes.

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

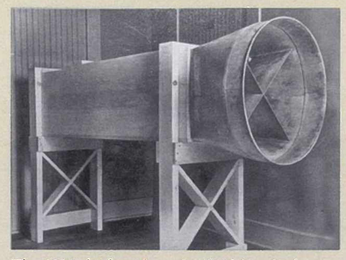
And no one paid much attention as they flew big kites and watched birds, studying how their wings moved. The brothers tested, talked, and tinkered, using their bike-building know-how to build experimental gliders. By 1900, they were ready to test their glider somewhere wide open and with big winds.



NPS

*The brothers also built a better bicycle with improved brakes.*

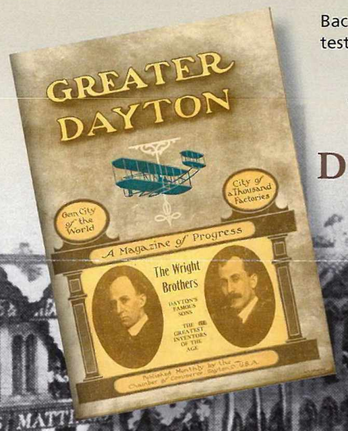
## Figuring Out Flight



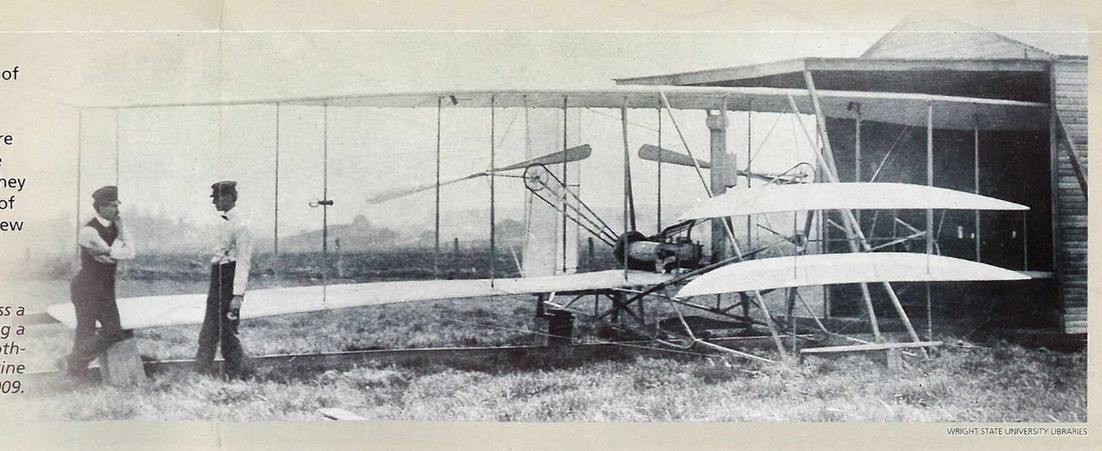
*The Wright brothers built this wind tunnel to test wing designs.*
WRIGHT STATE UNIVERSITY LIBRARIES

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, and so in 1903 they built an airplane. 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 quickly. 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.




DAYTON METRO LIBRARY



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

WRIGHT STATE UNIVERSITY LIBRARIES



NATIONAL AIR AND SPACE MUSEUM

## 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.

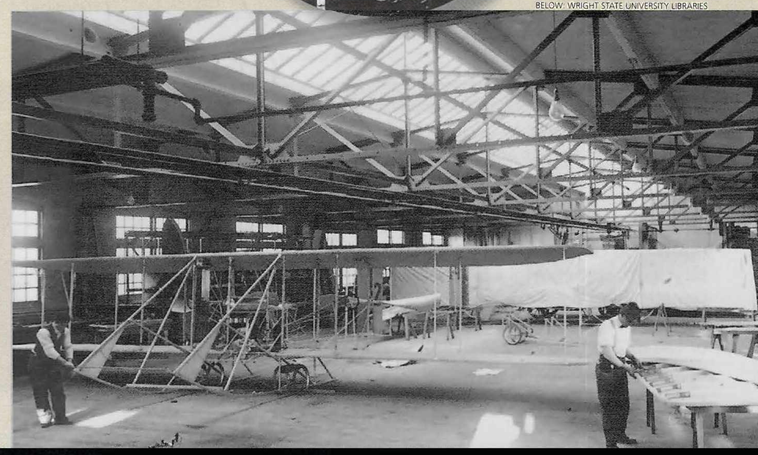
In the next year, they incorporated the Wright Company, built an airplane factory, opened a flight school, and started an exhibition flying team. They also had to deal with people stealing their ideas, so Wilbur traveled frequently to consult with lawyers and appear in court. Some say he died trying 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). 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) *was the youngest woman to earn wings at that time, and she did so at the Wright School of Aviation. Both she and her sister Katherine* (far left) *became famous pilots.*
LEFT: NATIONAL AIR AND SPACE MUSEUM

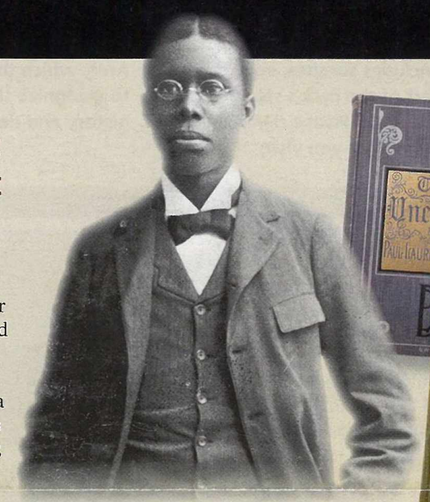
*Dayton threw a grand party for the Wrights in 1909* (left). *Ten thousand people cheered as they paraded by. Workers were soon building airplanes in the Wright Company's new factory* (right).



BELOW: WRIGHT STATE UNIVERSITY LIBRARIES

## 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.



OHIO HISTORICAL SOCIETY

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 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!*




BOOKS: WRIGHT STATE UNIVERSITY LIBRARIES

# Visiting Dayton's Sites of Flight and Poetry

**Dayton Aviation Heritage National Historical Park, established in 1992, includes six sites, each highlighting a different part of the park's story. Hours vary; several sites have a fee. Please check the information for each site before you visit.**

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

## 1 WRIGHT CYCLE COMPANY AND VISITOR CENTERS

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




NPS

## 2 PAUL LAURENCE DUNBAR 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. You can usually tour the house on weekends for a fee. 219 N. Paul Laurence Dunbar St.; 937-313-2010.



INTERIOR (RIGHT): DAYTON HISTORY



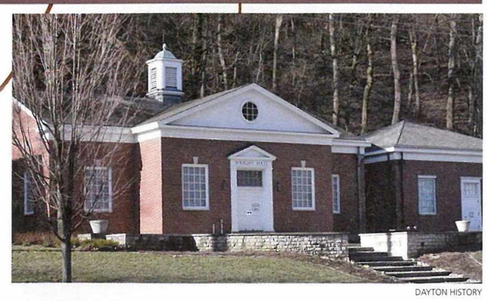
DAYTON HISTORY

## 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 also came here to learn plane controls on a simulator. The factory is a new part of the park and is not yet open to the public.

## 4 WRIGHT BROTHERS AVIATION CENTER

The Aviation Center, 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)*. You can also see the Van Cleve bicycles that the Wright brothers designed. Open daily except some winter holidays; fee. Go to DaytonHistory.org or call 877-BeHistory (234-4786) for more information.



DAYTON HISTORY

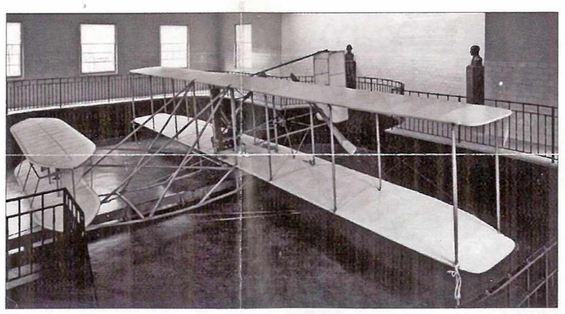
## 6 HUFFMAN PRAIRIE FLYING FIELD AND INTERPRETIVE CENTER

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, which was erected by the Dayton community to honor the brothers. Huffman Prairie Flying Field is now part of the active 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.



NPS



DAYTON METRO LIBRARY

*The 1905 Wright Flyer III has long been a highlight of the Wright Brothers Aviation Center.*

## 5 HAWTHORN HILL

Wilbur, Orville, and Katharine—the unmarried siblings of the Wright family—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. You need a reservation to tour this national historic landmark. Fee. Go to DaytonHistory.org or call 877-BeHistory (234-4786) for more information.



DAYTON HISTORY

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

**FIREARMS** For firearms regulations check the park website.

**Emergencies dial 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 400 parks in the National Park System. To learn more about national parks and National Park Service programs in America's communities, visit www.nps.gov

☆GPO:2013—378-769/30156
Printed on recycled paper.