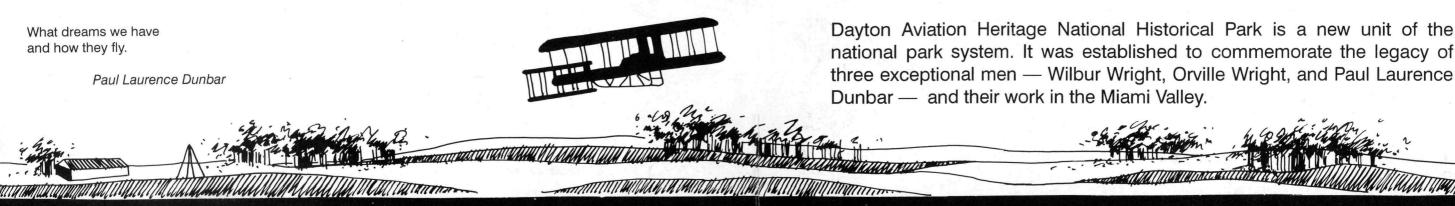
# **Dayton Aviation Heritage**

National Historical Park Ohio



On October 16, 1992, Congress established Dayton Aviation Heritage National Historical Park to commemorate the legacy of three exceptional men --Wilbur Wright, Orville Wright, and Paul Laurence Dunbar — and their work in the Miami Valley.

Through the invention of powered flight, Wilbur and Orville Wright made a significant contribution to human history. These two men, self-trained in the science and art of aviation, built and flew the first heavier-than-air powered flying machine. The Wrights also built and flew the world's first airplane that was practical and controllable. At their flying school on Huffman Prairie, they trained over a hundred military and civilian aviators, many of whom became leading figures in aviation in the following decades.

#### Wilbur and Orville Wright, 1909



The Wrights applied the mechanical aptitude that they had inherited from their mother to their early printing and bicycle manufacturing businesses and later to their aviation endeavors. From their father they had learned how to think critically, to hone their powers of observation, and to keep detailed and accurate records. Their father also taught them to put their faith in family before all others. For this tightly knit clan, the family structure provided safety in a sometimes hostile world. The Wrights needed that support in the turbulent years that followed their first flights.

As engineers, the Wrights employed a painstaking scientific methodology to solve the problem of powered flight. The experiments they conducted used a wind tunnel of their own construction and enabled them to overturn some commonly accepted formulas for wing configuration. They were able to determine the correct dimensions for wings that would support a powered airplane. As master mechanics, the brothers built the machines they flew and the small internal combustion engines that powered them. Their experience as bicycle builders provided critical background in the construction of lightweight, efficient machines capable of motion. They applied the same principles used in steering bicycles to the control mechanisms for airplanes and used chains from the engines to turn the propellers.

The Wrights thoroughly tested each of their innovations in flight technology and diligently recorded the successes and failures of each stage of development. Careful documentation of procedures helped them to streamline their efforts to achieve heavier-than-air powered flight and proved invaluable in the bitter patent fights that followed their widely publicized flights of 1908. Their quiet determination, unstinting attention to detail, and combined genius brought them success in an endeavor where death could be the penalty for failure.



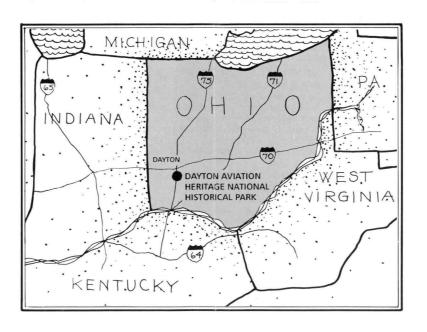
Paul Laurence Dunbar 1872-1906

Paul Laurence Dunbar achieved national and international acclaim in a literary world that was exclusively reserved for whites. This gifted and prolific writer produced a body of work that included novels, plays, short stories, news articles, essays, lyrics, orations, and over four hundred published poems. His vivid use of social and historical settings articulated a keen awareness of the inequities of American society. His presentations in classical English and plantation dialect forms evidenced his mastery of the language. Dunbar's work, which reflected much of the black experience in America, contributed to a growing social consciousness and cultural identity for black people in the United States. He associated with Frederick Douglass and other early African American scholars, including Booker T. Washington and W.E.B. Du Bois.

rights.

## How Did It Happen?

A successful grassroots effort in Dayton grew from the work of Aviation Trail, Inc. a local not-for-profit organization formed in 1981 to preserve and promote the Dayton area's unusual aviation heritage. Early successes of Aviation Trail, Inc. included saving and preserving the Wright Cycle Company building and organizing and promoting the Aviation Trail, a self-guiding automobile tour of important historic sites. A National Park Service (NPS) study of these historic properties resulted in their designation as national historic landmarks. Building on these successes, a coalition of preservation interests and community leaders was formed in 1989. The group chose the name The 2003 Committee in honor of the centennial anniversary of flight. Promotional activities and fund raising by the committee supported a second NPS study of management alternatives for the aviation-related properties. The committee worked successfully with the Miami Valley congressional districts in achieving national historical park designation for the aviation-related sites of the Miami Valley.



## How is the Park Going to be Developed?

There will be partnerships among federal, state, and local governments and the private sector to preserve, enhance, and interpret the historic structures, districts, and artifacts associated with this nationally significant story of the Dayton area. A general management plan will be developed over the next several years. The plan will guide the overall operation and development of the park. The public will play a key role in crafting this plan. The Dayton Aviation Heritage Commission, a federal group to be appointed by the secretary of the interior, and the Wright-Dunbar State Heritage Commission, to be appointed by the governor of Ohio, will guide and advise the National Park Service in the development and operation of the park.

National Park Service U.S. Department of the Interior

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Born in Dayton to Joshua and Matilda Dunbar, both ex-slaves, Paul Laurence Dunbar was profoundly influenced by his parents through both example and the oral histories they shared with him. For the young lad, Joshua's achievements reflected the virtue of strong determination: he learned a trade while enslaved, he escaped from slavery and traveled the Underground Railroad to freedom in Canada, and during the Civil War, he served with the 55th Regiment Massachusetts Volunteers and the 5th Cavalry, rising to the rank of sergeant. Matilda Dunbar extended constant support and her love of the language to Paul, always sharing stories that stimulated his imagination and capacity to dream. His parents' influence, combined with his own bitter firsthand experiences, equipped Dunbar to write passionately of the pervasive racial oppression and intolerance in a nation that claimed dedication to equal

Although he was a scholar and had been president of the literary society at Central High School, the only employment open to Dunbar after graduation was as a janitor at the National Cash Register Company. Forced to leave that job due to the heavy lifting it required, Paul again encountered discrimination in employment and became an elevator operator in the Callahan Bank Building. Dunbar profitably used his time in this job to read voraciously and sell his first published works to the passengers of his elevator.

Dunbar achieved national and international fame before the Wright brothers. They were his boyhood friends and printed The Dayton Tattler, the newspaper he edited at age seventeen for the black community. Personal misfortunes eventually offset Dunbar's literary triumphs and failing health led him to return to Dayton in 1903, where he wrote feverishly in a race against the death he knew was imminent. Paul Laurence Dunbar died in 1906 at the age of thirty-three. Once a towering figure in American literature during the Age of Realism and championed by William Dean Howells, he is still revered today. Monuments and institutions across the United States bring honor to his life and legacy by perpetuating his name.

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## THE WRIGHT CYCLE COMPANY

From 1895 to 1897 Wilbur and Orville Wright operated their bicycle manufacturing and printing businesses at 22 South Williams Street. The brothers began to consider the problems of powered flight in this building. Their skills as bicycle builders contributed directly to their eventual success as aviators. The Wright Cycle Company is the last remaining site in Dayton related to the brothers' bicycle business. The building is a national historic landmark.

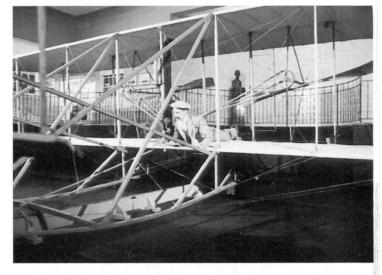
## THE WRIGHT FLYER III AND CARILLON HISTORICAL PARK

The 1905 Wright Flyer III is on exhibit at Carillon Historical Park, 2001 South Patterson Boulevard. This is the world's first practical airplane, the first craft capable of controlled flight. With the Wright Flyer III, the Wrights learned the fundamentals of controlling a powered aircraft. The Wright Flyer III was eventually dismantled and forgotten. The plane was later rebuilt and restored under the supervision of Orville Wright. The Wright Flyer III is a national historic landmark.

## THE HUFFMAN PRAIRIE FLYING FIELD

After their first successful powered flights in 1903 at Kitty Hawk, North Carolina, Wilbur and Orville Wright returned to Dayton to refine both their machine and their flying techniques. They erected a hangar for their plane on the Huffman Prairie outside of Dayton. For two years they practiced in virtual secrecy, mastering the principles of controlled, powered flight. In 1905 they built a second hangar for the Wright Flyer III, their first practical airplane. The Wrights built a third hangar in 1910 that became the





base of the Wright Company School of Aviation, the world's first permanent flying school, where over a hundred of the world's first aviators learned to fly.

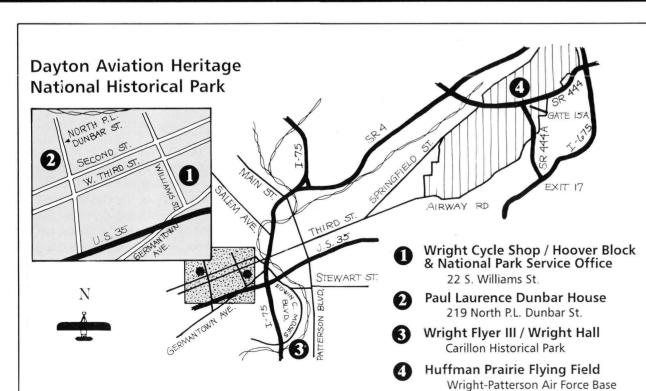
The Huffman Prairie Flying Field, a national historic landmark, is located on Huffman Prairie, the largest prairie remnant in Ohio. In 1986 Huffman Prairie was designated an Ohio natural landmark.



## PAUL LAURENCE DUNBAR HOUSE

Dunbar purchased the house at 219 North Summit Street (now Paul Laurence Dunbar Street) for his mother. In 1903 he returned to Dayton to live with his mother in this house. Dunbar, in rapidly failing health, completed his last work in this house, where he died in 1906.





#### HAWTHORN HILL

901 Harmon Avenue, Oakwood, 45873. This is the only home that was built by the Wright Brothers. Wilbur died before its completion in 1914. Orville lived here until his death in 1948. It is now owned by AT&T and is not open to the public.

## INTERNATIONAL WOMEN'S

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**AIR & SPACE MUSEUM** 26 N Main Street Centerville 45459 (513) 433-6766. The exhibits highlight the achievements of women in aviation and their role in its history from ballooning to the space age. There is a special display on Katharine Wright. The museum is in the restored Asahel Wright House, which was once the home of Wilbur and Orville's great uncle. A donation is requested.

#### **KETTERING-MORAINE MUSEUM** & HISTORICAL SOCIETY

35 Moraine Circle South, Kettering, 45439 (513) 299-2722. The collection includes items related to the Wright Brothers, furniture from Hawthorn Hill, and historical displays. The museum also includes six restored buildings that date back to the early history of the region. A donation is requested

#### **ASSOCIATED SITES**

MONTGOMERY COUNTY HISTORICAL SOCIETY 7 North Main St., Dayton, 45402 (513) 228-6271. The society is located in the Old Courthouse building, which was constructed in 1850 in the Greek Revival style. There are several rooms of permanent exhibits and special changing exhibits in the rotunda. There are research facilities and collections relating to the Wright Brothers. A donation is requested.

#### NATIONAL AFRO-AMERICAN MUSEUM & CULTURAL CENTER

1350 Brush Row Road, Wilberforce, 45384 (513) 376-4944. This facility educates the visiting public about African American history and culture from the African origins to the present by collecting, preserving, and interpreting material evidence of the black experience. There is a research library. There is an admission fee.

### UNITED STATES AIR FORCE MUSEUM

Springfield Street at Gate 28B Wright-Patterson Air Force Base, 45433 (513) 255-3286. This is the oldest and largest military aviation museum in the world. It includes nearly 300 aircraft and major missiles plus aeronautical items from all eras. Aircraft from several nations are included, as are United States presidential planes. Special events are held throughout the year. There is a research library and an IMAX theater. There is no admission for the museum, but an entrance fee is charged for IMAX.

## National Park Service U.S. Department of the Interior

## THE HOOVER BLOCK

Before Wilbur and Orville Wright began building bicycles, they operated a printing business in the Hoover Block at 1060 West Third Street. They had begun their printing business while Orville was still in high school and printed small neighborhood newspapers, including one edited by Orville's high school classmate and friend, Paul Laurence Dunbar. The Wrights' printing business remained in the building until 1895.

The Dunbar House today appears much as it did at the time of the poet's death. The house contains many original furnishings and artifacts, including a bicycle that was given to Dunbar by the Wright brothers. The Dunbar House is a national historic landmark and is owned and operated by the Ohio Historical Society.

### Wright Model E

Orville Wright piloted this airplane, which carried an automatic stabilizer, and won the Aero Club of America trophy of 1913.

#### WOODLAND CEMETERY AND ARBORETUM

118 Woodland Avenue, Dayton, 45409 (513) 228-3221. The cemetery includes the graves of Wilbur, Orville, and Katharine Wright and their parents Milton and Susan Wright. Paul Laurence Dunbar and his mother Matilda are buried nearby. Graves of other prominent Dayton citizens can be found throughout the cemetery. The hilltop lookout provides an overview of Dayton. A tour booklet is available. There is no admission fee.

#### WRIGHT "B" FLYER, INC.

admission fee.

Dayton - Wright Brothers Airport, 10550 Springboro Pike, Miamisburg, 45342 (513) 885-2327. This is a fully functional recreation of the first mass-produced airplane built by the Wright Company between 1910 and 1911. The flver was constructed and operated by local aviation enthusiasts. The plane is housed in a replica of the Wright hanger. There is no admission fee.

#### WRIGHT BROTHERS MEMORIAL & WRIGHT HILL Route 444 and Kaufman Road, Wright-Patterson Air Force Base, 45433 (513) 257-5535. The memorial to the Wright Brothers overlooks Huffman Prairie Flying Field to the east. Bronze plaques and a wayside exhibit provide information on significant features related to aviation history. The memorial was erected in 1940 by the citizens of Dayton. Landscaping of the area was done by the Olmsted brothers. There is no