In 1899, Wilbur Wright wrote a letter to the Smithsonian Institution (on the stationary of the Cycle Company he and his brother ran), asking for works in print in the English language concerning mechanical and human flight. He had been interested in this "problem," he indicated, ever since he had been a boy.

"I am an enthusiast," Wright declared, "but not a crank in the sense that I have some pet theories as to the proper construction of a flying machine."

Four years later, in the Outer Banks of North Carolina, Wilbur and Orville Wright took turns flying their homemade plane; their longest distance was 852 feet in 59 seconds. Their total expenses, including materials and transportation to and from Kitty Hawk, was about $1,000.

In "The Wright Brothers," David McCullough, the Pulitzer Prize-winning author of "John Adams," "Truman," "The Great Bridge," "The Path Between the Seas," and "1776," draws on diaries and family correspondence to tell the story of two amateurs from Dayton, Ohio (which, for some reason, ranked first in the United States, per capita, in the creation of new patents) who changed the world.

McCullough provides a detailed description of how they did it. Working in an upstairs room in their bicycle shop, they measured the "lift" and "drag" of a wing surface, and then, using hacksaw blades, built metal models strung on spoke wires. With the help of Charlie Taylor, "a brilliant mechanic," they constructed an engine intended to deliver 12 horsepower and carry 675 pounds. And they settled on two propellers (the likes of which had never been designed before), each with a diameter of eight and a half feet, one to turn clockwise, the other counter-clockwise...
so as to balance one another.

In awe of the ingenuity of the Wright brothers, McCullough also celebrates them as human beings.

"Never did they stray from exactly who they were," he writes. "For all they had seen or done, for all the unprecedented glory bestowed on them, it had by all signs neither changed them nor turned their heads in the least."

Orville and Wilbur may well deserve such praise. But the more cynical among us may wonder whether they shared the anti-Semitism expressed by their sister, Katharine. And whether their anger at the Smithsonian for (in their view) rehabilitating the reputation of Samuel Langley at their expense or the lawsuits they initiated for patent infringement, are evidence that the Wright brothers were not always "imperturbable men from home."

What is clear, however, is that Orville and Wilbur were American heroes from an era, long since passed, when two men who ran a bicycle shop could teach the world how to fly.

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