

## PREFACE: THE WRIGHT MYTH

**I**t is hard to get flesh and bones on these two men. They come to us as stick figures in vests and white shirts, with their hard shoes hanging off the back of their flyers. They seem to not be of the earth and have few worldly desires after the desire to fly. Historians tramp from the Outer Banks to Dayton, Ohio, then to the Smithsonian in Washington or to the Ford Museum in Dearborn, Michigan, to see the Wrights' bicycle shop. And after seeing the *Wright Flyer* in Washington or the markers in Kitty Hawk, they sit down to write the "Wright story."

It is a fact that the two men in the derbies have eluded historians and the rest of us for a long time. They were elusive men, after all, and so the questions linger behind the legend and the façade of the two Arrow collar young men who dazzled the world in 1903. History would have us believe that the Wright brothers were one in the same: Somehow, *they both* invented manned flight. They both had the same epiphanic moments while working on their gliders in Kitty Hawk. They both studied birds and deduced that wing warping was the key to controlled flight. They both worked out the complex aeronautical data that went into determining the amount of lift, the shape, the very design of a wing that would enable them to ascend to the heavens.

Their father, Milton Wright, set the bar early on by declaring to a reporter they were as "inseparable as twins."<sup>1</sup> Wilbur and Orville have been treated as two sides of the same card, and that card solved all the problems men had been wrestling with for at least the last century in their effort to leave the surly bonds of Earth. The mantra of shared responsibility, shared credit, shared genius, shared effort, and shared eureka moments begins with their father. After clashing with his own church and losing a pivotal legal battle, the bishop saw the world as evil and the family as good, and he believed that the family must be united. As Lawrence Goldstone, author of *Birdmen: The Wright Brothers, Glenn Curtiss, and the Battle to Control the Skies*, described,



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“They [Wilbur, Orville, Katherine] came to believe in the essential depravity of mankind. The world beyond the front of their home was filled with men and women who were not to be trusted.”<sup>2</sup>

In the eyes of their father, there must be no fissures between the siblings, especially the boys; the brothers, Wilbur and Orville, were to be equal. Period. But the old, crafty man of God let it slip toward the end that Wilbur was the man who was the real force behind the evolving science and art of flying. In a letter to Wilbur, he wrote, “Outside of your contacts and your aviations, you have much that no one else can do so well. And alone. Orville would be crippled and burdened.”<sup>3</sup>

Milton knew who the real intellectual force was, the silent genius who solved the head-scratching physics of riding invisible air currents into the sky. It was Wilbur. But this was lost quickly under the bishop’s philosophy, which colored his sons’ view of the world. His beliefs that the world was inherently evil and untrustworthy, and that all must be unified against it, meant no one would be singled out. There could be no division apparent to the outside world.

This philosophy was the guiding light of the Wright brothers as they lived, and death would cement the Wright myth. Wilbur’s early death from typhoid fever in 1912 ensured an obfuscation of the truth by leaving behind Orville to scatter the breadcrumbs for others to follow. These breadcrumbs begin with Fred C. Kelly in 1943. A journalist who had written many articles on the Wright brothers, he had become a close friend of Orville. He was the one man who would explain to the world how the Wright brothers flew.

The very title of Kelly’s biography of the Wright brothers throws up a red flag: *The Wright Brothers: A Biography Authorized by Orville Wright*. This lets us know right away that this is Orville’s version of events and not Wilbur’s. The biography is a picture of perfect 50 percent partners. Orville would approve every word of the Kelly biography, ensuring the mantra that they equally broke the code of flight. They were to be the two men in derbies walking side by side with their brains adjoined. No man was smarter than the other. No man solved what the other could not. Kelly set the bar for all historians to follow—from every children’s book to David McCullough’s latest effort aptly titled *The Wright Brothers*.

But it gets worse. When reading the Fred Kelly biography, one quickly realizes it is not a biography of the Wright brothers but of Orville Wright.

Orville is on every page in spirit, and many times he is literally dictating large swaths of prose in first-person narration. Orville's name appears 337 times in Kelly's biography while Wilbur's name appears 269 times.<sup>4</sup> Almost a quarter less than his brother. Biographical information is given as if there is one Wright brother: "At the age of twelve, while living in Richmond, Indiana, Orville Wright became interested in wood engravings."<sup>5</sup> So begins chapter 3, in which we are given the biography of Orville, with Wilbur often referred to only within the plural *Wright brothers*. The entire tone of the Kelly biography is one that pays tribute to Orville with fuzzy references to Wilbur.

Orville is painted throughout as the nascent genius inventor, with Wilbur in the background: "Orville even found time during this period for experiments having nothing to do with bicycles. . . . He made a new kind of calculating machine for multiplying as well as adding . . ." <sup>6</sup> Kelly then throws Wilbur a bone with the line, "What will those Wright boys be doing next?" <sup>7</sup> This is Kelly pleasing Orville in the worst way, with a bit of Capraesque Americana.

The Kelly story goes like this. The brothers' interest in flight begins with a toy helicopter Milton brought home. Orville would cement this fact in a deposition six years after his brother died: "Our first interest began when we were children. Father brought home to us a small toy activated by a rubber spring which would lift itself into the air. We built several copies of this toy, which flew successfully. By 'we' I refer to my brother Wilbur and myself."<sup>8</sup> The "we" became gospel with Orville Wright—*Thou shall not use the singular when the plural will do*. Kelly took it to high art by submerging Wilbur into "the Wright brothers" or referring to him as "they." Great pains were made to obliterate Wilbur's use of the singular "I" for the plural "we" in his early letters. *We* invented the airplane. *We* called the Smithsonian for information. *We* cracked the code of aeronautics. *We* wrote Octave Chanute. *We* are equal in the eyes of the world. This is the beginning and the core of the Wright myth.

So, as children, they became fascinated with the toy helicopter and the way it would fly to the ceiling. Orville would say he had equal interest in the toy and wondered how man might fly one day. They both lost their mother. They both had a father, Bishop Milton Wright, who was rarely home. They both had a sister, Katherine, who had strong relationships with other women and looked after the brothers *their entire adult lives*. No one

ever moved out of the original family house. Neither brother had a sexual relationship the world knew of. This would be explained by Wilbur, who said, "I don't have

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time for both a wife and an airplane.”<sup>9</sup> Kelly laid cover for both by saying neither brother had time for marriage. Neither did their sister have time for a husband; and when she did care about sex and finally married in her midfifties, Orville would punish her for marrying by refusing to see his sister until she was on her deathbed.

They both dropped out of high school. They both became interested in printing and started a newspaper. Then they both got into the business of making and fixing bicycles. They both became interested in flying and requested information from the Smithsonian. You can feel Orville looking over Kelly’s shoulder as he writes, “Knowing that the Smithsonian Institution, at Washington, was interested in the subject of human flight, they decided to send a letter to the Smithsonian, asking for suggestions of reading material.”<sup>10</sup>

The most egregious example of Orville’s heavy editorial hand is evident in the invention of wing warping by Wilbur. In Kelly’s biography, this breakthrough is given a fifty-fifty status, with Orville having an equally inventive moment: “Why, he [Orville] asked himself, wouldn’t it be possible for the operator to vary the inclination of sections of wings at the tips and thus obtain force for restoring balance from the difference in the lifts of the two opposite wing tips?”<sup>11</sup>

They both then built a glider. They both went to Kitty Hawk four times and built a wind tunnel. In the Kelly biography, Orville is purported to have built an early wind tunnel to check facts given by Wilbur at the Society of Engineers in Chicago. Then, in 1901, Kelly has Orville encouraging Wilbur to continue with his experiments when he declares, “Not within a thousand years will man ever fly!”<sup>12</sup> Then, on December 17, 1903, in Kitty Hawk, North Carolina, Orville flew a plane under its own power for twelve seconds. Done.

The Orville Wright version of how powered flight was invented is there for all time, with all its strictures, obfuscations, and creations. Our main ruler for comparison to the Kelly biography are *The Papers of Wilbur and Orville Wright, Including the Chanute-Wright Papers, 1899–1948*. In their own words lies the truth of what really happened at Kitty Hawk and afterward. It is not really Kelly’s fault. Wilbur had been dead for thirty years, and Kelly was working with essentially one source, one voice: Orville Wright. And Orville had the power to censor anything or

cancel the whole project. Kelly had no access to the letters of the brothers or the correspondence between the engi-

neer, Octave Chanute, and Wilbur Wright that lies at the very heart of the invention of the airplane.

Historians generally lead with the Kelly thesis, and the Wright brothers are left alone to leak sawdust like the mannequins in the museum in Kitty Hawk. The latest and most popular biography is David McCullough's, and he sets up the relationship right in the beginning: "As others in Dayton knew, the two were remarkably self-contained, ever industrious, and virtually inseparable. . . . They lived in the same house, worked together, kept their money in a joint bank account, even thought together."<sup>13</sup>

So, the die is cast and the Wright story is told of two cardboard men who had no foibles, no strange passions—two men who lived with their father and sister their whole lives until Wilbur passed and Orville bought a mansion for the three of them to live in. The brothers were not gay, or at least we have no evidence that they were, yet they eschewed all women because of shyness, supposedly, or because it would interfere with solving the problem of manned flight. This is taken as part of the Wright mythology. "In one significant respect, the three youngest Wright children set themselves apart from their contemporaries. Wilbur was twenty-nine in 1896, Orville twenty-five, and Katherine twenty-two. They were ripe for marriage yet none of them showed any interest in the opposite sex. They seemed bound by an unspoken agreement to remain together and to let no one come between them."<sup>14</sup>

This mythology protects the brothers from being gay, the sister from being a lesbian, and the father from being an overbearing ogre who only wanted his children home and who turned his daughter into his dead wife and foisted upon her the role of servant in waiting while admonishing his three children that the world was evil and only the family could be trusted. As Tom Crouch wrote in *The Bishop's Boys*, "Sex was a subject on which the entire family maintained silence. This was expected in any late Victorian American household."<sup>15</sup>

Still, one must wonder why three healthy adults would eschew any sexual relations or any known relationship outside the family. Charlie Taylor, the mechanic who would build the engine for the *Wright Flyer* in 1903, would later say that Wilbur "would get awfully nervous when young women were around . . . if an older woman sat down beside him

before you know it he would be talking . . . but if a younger woman sat next to him he would get fidgety and pretty soon would get up.”<sup>16</sup>

Charlie Taylor would finally surmise that Wilbur was “woman shy.”<sup>17</sup> Katherine would get engaged at college and keep it from her father until she broke it off, and even then she would not tell him. When she did marry, finally, in her fifties, Milton was gone and Orville would never forgive her.<sup>18</sup> Orville’s only known courtship was with a friend of his sister’s, Agnes Osborn. “There were evenings of chess and romantic boat rides on the old canal. Agnes’s younger brother, Glenn, the proud owner of a Wright bicycle, remembered that Orville came calling dressed in his best suit, and loved to play practical jokes on his sister.”<sup>19</sup> It would come to nothing, but this at least gives us a glimmer of a man with desires like anyone else. Orville even went to a party that a high school friend later described: “Orville sat in a straight-backed chair just inside the parlor door all evening, genially aloof from our games of Kiss the Pillow, Post Office, Forfeits and other stimulating enterprises.”<sup>20</sup>

You can imagine everyone having fun while the bishop’s son sits. His strongest known relationship will be with his brother and his sister, until she marries. Freud would have a field day. This information at least pumps some blood into these historical characters who have not changed in history since Kelly’s biography in 1943. If we were to keep score, Wilbur came the closest to living up to his father’s implied wish of asexual children, with Orville a close second and then Katherine. Bishop Wright held up the two older sons in the family as evidence of what happened to those who ventured out into the world and married. Reuchlin and Lorin, the older Wright brothers, had married and had children and entered into a depressed economy. In *The Bish-op’s Boys*, Crouch points out that “Wilbur watched his two older brothers with interest and a great deal of sympathy. Reuchlin and Lorin were talented men with more formal education than most of their contemporaries, yet both gave the impression of being constantly overwhelmed by responsibility and circumstance. They suffered from chronic poor health and seemed to be perpetually on the brink of failure.”<sup>21</sup>

The world was not to be trusted. No wonder Orville and Wilbur would spend most of their life after their historic flight in litigation, proving to the world they had flown first and they should be rewarded handsomely. Bishop Wright’s grown children were there to serve him when he returned from his travels, which consumed him to the point that he would not alter his schedule even for his dying wife. It was especially

unfair to Katherine: “The dutiful daughter who devoted her life to caring for the widowed father

was the epitome of female virtue in the life and literature of the period. Yet it is safe to assume that few widowed fathers were as demanding as Milton Wright.”<sup>22</sup>

It is as if a child’s book is the bible of the Wright brothers’ story and all characters must remain one-dimensional, misanthropic, and stunted, if not emotionally incestuous. But this is all brushed under the Wright rug and has remained the inconvenient dust under the clean tabula rasa of the Wrights’ story; it is to be retold and accepted with the same blind faith that George Washington did cut down a cherry tree and that Ben Franklin flew a kite with a key and discovered electricity.

Wilbur and Orville Wright are portrayed as perfect men, and, in that perfection, we are given characters who think and act as one. They are given to us as men who have little flesh and blood. “Like their father, they were always perfect gentlemen, naturally courteous to all. They neither drank hard liquor nor smoked nor gambled and both remained, as their father liked to say, ‘independently republican.’ They were both bachelors and by all signs intended to remain so.”<sup>23</sup> They seem to be men devoid of bodily functions. No one uses a bathroom. No one secretes anything. Sister Katherine is treated the same way: “Younger than Orville by three years, she was bright, personable, highly opinionated, the only college graduate in the family and of the three still at home, much the most sociable.”<sup>24</sup>

In short, she was the perfect post-Victorian spinster. The famous picture in *Kitty Hawk* on December 17, 1903, only complicates matters. In this photo we see the *Wright Flyer* leave Earth for twelve seconds, with Orville Wright at the controls and Wilbur looking on. It was a coin toss and a bad maneuver that handed this historic moment to Orville. This is what history has delivered to us.

It goes against the gospel of Wright to say that Wilbur Wright invented the mechanical system of control for manned flight and rewrote the science of aeronautics that was required to produce a wing capable of enough lift and an airplane with enough control to carry a human being into the air; in short, Wilbur Wright *invented* the plane that would carry his brother for the first twelve seconds of human-powered flight on December 17, 1903. And yet Orville was his partner. He did join Wilbur in this great adventure and did help him physically build the airplane. He helped him build the wind tunnel that reset the basic data of manned flight. He did fly the plane for twelve

seconds on December 17, 1903. In a way, that was fitting. Wilbur could observe his plane leaving Earth under its own power; and, in that moment, he has the satisfaction that his vision, his theories, his calculations, his years of work produced a machine that could lift a man and fly like the birds he studied so intensely.

Now if we go with that supposition, then we must turn the Wright myth on its head and shake out the falsehoods. The first one is that these two men, separated by five years at birth, were the same. As Lawrence Goldstone wrote in *Birdmen*, “They may have been alike, but they were not the same. Wilbur is one of the greatest intuitive scientists this nation has ever produced. Completely self-taught, he made spectacular intellectual leaps to solve a series of intractable problems that had eluded some of history’s most brilliant minds. . . . Many subsequent accounts have treated the brothers as indistinguishable equals, but Orville viscerally as well as chronologically never ceased being the little brother.”<sup>25</sup> Author James Tobin takes it one step further: “It is impossible to imagine Orville, bright as he was, supplying the driving force that started their work and kept it going from the back room of their store in Ohio to conferences with capitalists, presidents, and kings. Will did that. He was the leader, from beginning to end.”<sup>26</sup>

Then there are the personal differences. In *Birdmen*, Lawrence Goldstone points out that “as family correspondence makes clear, Orville’s relationship with Wilbur was a good deal more complex than is generally assumed and after his brother’s death, Orville was never able to muster the will to pursue their mutual obsessions with the necessary zeal.”<sup>27</sup> The strange, insular relationship of the three children, and Katherine’s strong relationships with other women her whole life, screams out some sort of androgyny that historians have chosen to ignore. Orville was fastidious, if not obsessive, about his appearance. A niece, Ivonette, recalled that he always knew what clothes to wear. “I don’t believe there was ever a man who could do the work he did in all sorts of dirt, oil, and grime and come out it looking immaculate.”<sup>28</sup> Argyle socks and low-topped shoes were a favorite among the brother who always wore a dapper suit, with his shoes shined to a high gloss.

As Tom Crouch wrote in *The Bishop’s Boys*, “His pale complexion was a matter of choice—and some pride. During the three years when they returned from Kitty Hawk each fall tanned by the wind and sun of the

Outer Banks, Orville would immediately go to work bleaching his face with lemon

juice. Carrie Kaylor Grumbach, the housekeeper, remembered that Orville would have gone pale again weeks before his brother.<sup>29</sup> Further suggesting that Orville was effeminate, George Burba, a Dayton reporter, described Orville's hands as "small and uncalledus."<sup>30</sup>

The impression of Wilbur is very different, he seemingly had little regard for his appearance besides the basic uniform of high collar, tie, and coat. Katharine spoke of having to watch him to make sure his clothes were clean. Wilbur had a darker complexion with a strong jaw. A French journalist wrote of Wilbur, "The face is smooth shaven and tanned by the wind and country sun. The eye is a superb blue-grey with tints of gold that bespeak an ardent flame."<sup>31</sup> An English reporter would observe his "fine drawn weather-beaten face, strongly marked features, and keen observant hawk like eyes."<sup>32</sup> So it would seem that Orville resembled an early century metrosexual; Wilbur was the silent, masculine type; and Katherine was androgynous, if not a lesbian. One thing is clear: they were not asexual.

If there is a smoking gun in the Wright myth, it is Wilbur's voluminous correspondence with the aeronautical scientist Octave Chanute that is so technical it gives the lay person a headache. Chanute was Wilbur Wright's mentor, though Wilbur would fight against that impression all his life. But it was Wilbur who went to the symposiums of the day in Chicago and related theory and the progress in Kitty Hawk with a lantern-light slide presentation at Chanute's invitation. It was Wilbur who wrote the first articles for aeronautical journals of his experiments at Kitty Hawk. Wilbur was viewed early on as the pioneer breaking the boundaries of known aeronautical science. Wilbur and Orville both participated in the *building* of the *Wright Flyer*, but Orville was the mechanic while Wilbur was the designer. It is telling that three years after Wilbur's death in 1912, Orville sold his interest in the company they had formed.<sup>33</sup> Without Wilbur the Wright brothers ceased as an entity driving the science of powered flight forward.

This is not the story we want to hear. Pluralism bespeaks of combined effort. We like to believe that two brothers were behind our ascent to the sky. The artist is a quirk of nature. The genius, an aberration. Most live in the terrestrial world where people work together to solve problems. Wilbur Wright as the lone inventor of flight has little appeal versus the mechanical mannequins side by side in the sheds at the Wright Memorial. This appeals

to our national team approach. America is a team. We will solve our problems

together. But there is always the visionary: from Jefferson to Edison to Bell to Oppenheim. There is a force behind that moves like a savant in a dark room. Every great movement or advancement in human history has the force of one man or woman behind it. Others may help; they may codify; they may construct; but it is the magician who creates something out of nothing. Destiny is but a singular tap on the shoulder.

This great work was Wilbur's invention of *controlled flight*. "The first U.S. patent, 821,393, did not claim invention of a flying machine, but rather the invention of a system of aerodynamic control that manipulated a flying machine's surfaces."<sup>34</sup> The visionary of this control system was Wilbur Wright. The story of flight in *Kitty Hawk* is the final arbiter.

But it gets worse for the historian trying to decipher fact from fiction. In 1912, Wilbur Wright died of typhoid fever and Orville did not die until 1948, which gave him a very long time to shape history. The younger brother is torn by conflicting interests. He wants to protect the legacy of Wilbur and himself as the inventors of powered flight, but he also wants history to know that *he was an equal partner*. He gets into a fight with the Smithsonian Institution, and this leads to the strangest unknown episode of the Wright story: the holding for ransom of the 1903 *Wright Flyer* by the British for twenty years. The epic fight of Glenn Curtiss and the Smithsonian Institute versus the Wright brothers is part of the drama and subterfuge that is the *real* history of the Wright brothers.

Here are the facts we know.

The United States in 1900 was on the edge of greatness when Wilbur went searching for the perfect place with the perfect wind flow to begin experiments toward a final goal of manned flight. The Gilded Age had ended but left a nation crisscrossed by railroads, with a national market in place and an industrial economy just warming up. People were leaving the family farms and heading for the cities to make their fortunes. Men like Andrew Carnegie and J. P. Morgan made enormous untaxed fortunes and proclaimed what was good for business was good for America. William Jennings Bryan had lost the presidential election to William McKinley but had shown that populism was a force to be reckoned with. Theodore (Teddy) Roosevelt had returned from the Wild West twenty years before and became president in 1901 after President McKinley was assassinated by an anarchist.

Henry Ford was getting ready to churn out cars like boxes of cereal.

Inventions on every front were the news of the day, with wireless telegraph connecting remote ships to the shore. America was in an amazing spot. The West had been declared closed in 1890. The US Industrial Revolution was producing goods on a scale that was unthinkable. Everyone all over the world wanted to go to America, and in New York Ellis Island had become the revolving door to new opportunities in the new land.

Against this heady backdrop, a moody and depressed young man named Wilbur Wright had grown bored with making bicycles and started to read about attempts to fly. He had gone so far as to write to the Smithsonian for all information regarding flight and then asked the National Weather Service where he might find the most suitable winds for testing airplanes. The reply came at once, a remote fishing village that wasn't even a village, on the outer banks of North Carolina, called Kitty Hawk. Wilbur had never heard of this strange place seven hundred miles due east of Ohio. But he decided then and there that he must go to Kitty Hawk and immediately begin testing a kite glider he had been working on above the bicycle shop.

Kitty Hawk was the wilderness in 1900. Wilbur Wright would go to this remote fishing village once in 1901, twice in 1902, and once in 1903. A final return to Kitty Hawk for testing in 1908 was more of a victory lap to get ready for a flight test for the United States Army. But it was those first four visits, with the resulting laboratory for testing the planes that were built and the answers found there, that hold the secret to why a man in a high collar was able to do what up until then only the winged creatures of the earth could accomplish.

The Outer Banks and Kitty Hawk in particular were inaccessible except by boat. There were seasons to deal with, and Wilbur had no patience for such things, so he set out at once to go *by himself* to inspect this strange, windswept land of sand dunes and the few fishermen eking out a living. Isolation is what most men who had been to Kitty Hawk talked about. This didn't matter. Wilbur would crate up the glider he had been building and ship it to this remote fishing village. Then he would go to Kitty Hawk to check out this strange enclave on the eastern seaboard. Wilbur Wright was thirty-three, and his pursuit of flight would be the ultimate young man's adventure.

This is what we know. Now let's turn the Wright story upside down, crack the myth open, and see what falls out. We should start with author

John C. Kelly, the man who is the architect of all that follows. The real story is more fascinating than the myth, but, after all, truth is often stranger than fiction.