

The Wind Beneath their Wings

Vandana Kerur*

Abstract

Science is, generally, seen as a male bastion. Books on science are replete with names of ‘great’ men, who dared to experiment, explore and invent. However, as the adage goes — ‘Behind every successful man is a woman’, it is not often known how much and in what capacities the female family members have contributed to such inventions and discoveries. Their contributions may have been as routine as looking after the nourishment and other basic life needs of budding scientists or inventors, keeping them away from financial obligations, and above all, providing much needed moral support when the experiments did not go as planned, and society laughed at them in derision. This article, through the story of the famous Wright Brothers and their lesser known sister, Katharine, tries to acknowledge the unspoken and latent contributions and sacrifices made by female members in a family. It also attempts to bring forth the point that without Katharine’s support, the Wright Brothers would not have been able to invent the ‘Wright Flyer’ and the world would have never been able to see the age of aviation.

INTRODUCTION

The whole world knows that the Wright Brothers (Orville and Wilbur) invented the airplane. Many may also be able to recall that their first flight was from Kitty Hawk, USA. But a few know that in that moment of euphoria, Orville elbowed aside well-wishers and

reporters to hurriedly send a telegram to their teacher far away, informing her of their success. The teacher was Katharine Wright, the lesser known younger sister of the famous Wright Brothers.

Katharine was the youngest and the only daughter in the family of

* Cuemath Franchise Teacher Partner and Freelance Writer, Goa.

five siblings. She was closer in age to Orville and Wilbur. During childhood, Orville and Wilbur often included her in their games and other activities. Katharine had always been a staunch supporter of all that Orville and Wilbur did. She was a witness to the glint in her brothers' eyes when their father had brought home a 'toy flying machine'. The book, *The Road to the First Flight*, sheds light on how the three siblings had played with the flying machine till it broke into parts. Orville and Wilbur sat for hours and repaired it, and to their amazement, the machine flew better now than when it was new. This made her encourage her brothers to try their hands at aeronautics. She lent all support to her brothers even as a child. She would help them collect bones and iron scraps to be sold at a fertiliser plant and a junkyard, respectively, in lieu of money. The two brothers used this money to fuel their passion at aeronautics.

Their bond grew stronger when their mother died of tuberculosis. Katharine was only 15 years old at that time, but remarkably intelligent and mature. Even though their mother had always encouraged her to study, she took over the household duties after her demise. Her father, too, encouraged her to go to college as he strongly believed in education. When about to enter college, the news of Orville being sick with typhoid fever made her rush back home, look after him and nurse him back to health. However, she managed to join

college the following year, becoming the only Wright to complete college education. Katharine graduated with a degree in classics and took a job as a Latin teacher at a school (Steele High School, Dayton) in Ohio.

EARLY ENDEAVOURS

The Wright family owned a bicycle shop at Dayton, Ohio. The Wright Brothers' endeavours were largely funded through this shop. During school holidays, while the two brothers were busy fuelling their passion to invent an airplane at Kitty Hawk, Katharine helped out with the day-to-day operations at the shop. She would pack food for her brothers, and manage all correspondences related to the shop and purchases, so that they could work with a free mind. Katharine supplemented the household expenses with her stable income from the school as well.

When managing the household, school and shop became a little too much for her, Katharine hired a helper to help her with the household chores.

Orville and Wilbur frequently went to Kitty Hawk, a desolate North Carolina village, known for its gusty winds and sandy beaches (perfect for landing). They spent longer hours there to test their prototype flying rig that they fondly called 'The Wright Flyer'. They corresponded with Katharine about their successes and, particularly, setbacks after tough trials, which made them believe that their idea was indeed a hopeless one and that scientific journals were

correct that building a human flight was impossible. Katharine always lent a patient ear to her brothers, and offered support, encouragement and advice to them.

One can only wonder at their tenacity, for there was almost nothing to base their theories on, “no reliable mathematics tables existed for scaling wings to carry humans, and much to their surprise and dismay, no usable research existed at all on the workings of this thing called a ‘propeller’. The magnitude of the problem was (and remains) virtually inconceivable — how to build the wings; how to control a flight; where to position a person on this contraption; how to launch it; how to land it; how to build it; and how to build a suitable motor to run the thing. They had to deal with such problems while facing mockery by science journals of note, which dismissed the idea of human flight as lunatic notions of suicidal cranks” (Maurer, 2016).

Katharine, meanwhile, was always ready with solutions to problems not having to do directly with The Wright Flyer or the mechanics behind it.

SETBACKS AND CHALLENGES

Many wondered if it was a disruption of the natural order of life. It is said that a certain religious preacher went as far as to say, “If God wanted men to fly, he would have given them wings”. It was Katharine who taught them to take criticism in stride in the initial years of discouraging results. When they began to spend more time at Kitty

Hawk, she regularly wrote to them, informing them about family matters and local news in a humorous way to keep up their spirits.

Meanwhile, for Orville and Wilbur, achieving the ‘impossible’ and actually building an operational airplane was not the end of the journey. The Wright Brothers faced the challenge of displaying before people that their airplane actually existed — something that people simply did not want to believe. Witness accounts were completely ignored and photographs were claimed to be cases of forgery.

The Wright Brothers were undeterred. They wrote to the US War Department, explaining what they had created and also provided photographs of their invention. Their correspondence was ignored.

However, the French government approached the Wrights and expressed interest in their invention. The brothers had to box up their invention and ship it overseas, guarding it zealously throughout the expedition to prevent details of their plane’s design from getting leaked as it would render their invention of no value.

Public demonstrations in Paris proved to be sensational. As the word spread, engineering societies requested the Wright Brothers to address public talks — something the duo was hardly prepared for or even wanted to attempt. It was Katharine, who encouraged them to attend and address such events.

Soon, the Wright Brothers, with their state-of-the-art invention,

captured the attention of the entire country, and gradually, the world. A number of people attended their public demonstrations, and the Wrights were feted in every corner of Europe. Although self-taught and brilliant in their craft, the two brothers always felt socially awkward and shy. Such adulation disturbed them as parties like these hardly left any time for the serious business of pilot preparation and aviation research.

In 1908, after nearly three years of tireless efforts, the Wrights were able to convince the US Signal Corps to view a test flight of their flying machine, and if successful, consider it for sale to the government. Orville returned to the US for the demonstrations. After a week of successful and record-breaking flights, came a terrible accident on 17 September 1908. A propeller broke, and sent the airplane spiralling out of control. The crash killed the passenger, Army Lieutenant Thomas Selfridge. Orville, too, sustained serious injuries, and was left with broken ribs and a fractured leg. Katharine immediately took emergency leave from the school, where she taught, and rushed to be at his bedside at the Army Hospital in northern Virginia, USA. Orville was hospitalised for almost seven weeks. She looked after her brother and nursed him back to health. Orville, later, acknowledged that without his sister's unconditional love and care, he would have died.

MANAGING THEIR SOCIAL LIFE

The accident turned out to be a catalytic event in Katharine's life as she now had to perform the role of a 'social secretary' to her brothers. Eventually, the furore in Paris became a bit too much, and Wilbur beseeched his sister to come to Europe and take on the role of his 'social manager'. She agreed and brought Orville along. In addition to caring for her now weekend brother while in Europe, she took public pressure off Wilbur as well.

Although Katharine had been a homemaker — something that was taken for granted for women during those times — she never considered it drudgery. Education helped her to develop poise and confidence that balanced the discomfort her brothers exhibited during public appearances. Katharine helped Orville and Wilbur in innumerable ways. She was the first woman passenger on their trial flights that the public viewed, quite naturally, with scorn, skepticism and fear.

In memoriam...

The National Aeronautic Association, USA, awards the 'Katharine Wright Memorial Trophy' in the memory of Katharine Wright annually. The award was institutionalised in the year 1981. It is awarded to an individual, who has contributed to the success of others, or made personal contributions to the advancement of art, sports, and science of aviation and space flight over an extended period of time.

Katharine had flown “longer and farther than any American woman”. She was, in fact, the “only woman in the world who had made three flights in an aeroplane”, and would become, at the time, the only woman to have ever been invited to a dinner at the Aéro-Club de France (Brown, 2016).

She would often speak to newspaper reporters on behalf of her brothers. She learnt French as well, which enabled her to converse with scientists across Europe and people of rank, such as Alfonso XIII, the King of Spain; Georges Clemenceau, the Prime Minister of France; King Victor Emmanuel III of Italy, Edward VIII of England and Prince Friedrich Wilhelm of Prussia. She was awarded, along with Orville and Wilbur, the *Legion d’Honneur*, the highest French order of merit — both military and civil, making her one of the few women from the USA to have achieved this feat.

Katharine was outspoken, and possessed intelligence and zest that made her unique. She had strong opinions on the ‘rights of women’, and had even supported the National Suffrage Movement in 1920, which won women in America the ‘Right to Vote’. Orville and Wilbur were fervently grateful to her, particularly, at times when the brothers found themselves surrounded with fame, and suddenly, submerged in an environment of European and world elitism that they were not familiar with. As Katharine Wright’s biographer put it, “They’re not the

kind of guys you would want to invite to dinner. You could picture them coming over for dinner and not saying a word” (Maurer, 2016).

After a few years, Wilbur died of typhoid in 1912, in the midst of fiery patent arguments over the flying machine. Katharine and Orville returned to their home in Dayton, Ohio.

DEDICATION AND SACRIFICE

After Wilbur’s death, Katharine took over business responsibilities, becoming an officer at the Wright Company in 1912. She dedicated most of her time to the Suffrage Movement and to her obligations as a trustee at the Oberlin College, while living with and taking care of her increasingly reclusive brother, Orville.

At the age of 51 years, Katharine got engaged to Harry Haskell, who was also friends with Orville. This left Orville feel abandoned and betrayed. He smashed a pitcher of flowers against a wall and refused to attend their wedding, or even speak to both Katharine and Harry. With time, the siblings grew apart. Her one-sided correspondence with her lately estranged brother reflects her hope to mend their fractured relationship. It was only when she was on her deathbed that Orville come to be at her side.

On the day of her funeral, airplanes showered flower petals on her grave.

Brilliant, sociable and vivacious, Katharine lent unshakable support to her brothers in all their endeavours.

She cheerfully took on the role of the ‘woman of the house’ — managing the household affairs and taking care of the family. This was the role she felt duty bound to perform throughout life, especially to Orville, after Wilbur and her father passed away. Perhaps, that was the reason that she married so late in life. She was by their side at all times during flying expeditions, which sometimes resulted in mishaps.

Although Katharine did not design, build or pilot the Wright Flyer, she played a pivotal role in the lives of its inventors, and, in the truest sense of the term, was the ‘wind beneath their wings’.

CONCLUSION

Teachers may take cue from the life of Katharine Wright, who rendered selfless support to her brothers’

passion to invent an airplane, and sensitise children, especially, at the primary stage to recognise the support they get from their family, particularly, female members, by asking questions like — who packs your lunch box every day? Who drops you to school? The teacher may also interact with slightly older students (those studying in Classes IV to VI) and quiz them about various discoveries and inventions like — who invented electronic machines, such as refrigerator, washing machine, kettle, etc.

After sharing the life story of Katharine Wright with the children, the teacher may also encourage them to reflect on whether the Wright Brothers would have been able to achieve this feat without her unconditional love, and constant support and encouragement.

BIBLIOGRAPHY

- BROWN, DAVID, W. 2016. ‘Did You Know There Was a Wright Sister?’ *Mental Floss*.
- McCULLOUGH, DAVID. 2015. *The Wright Brothers*. Simon & Schuster. New York, USA.
- MAURER, RICHARD. 2016. *The Wright Sister: Katharine Wright and her Famous Brothers*. Square Fish Books — Macmillan. New York, USA.
- EVTIMOVA, MILENA. 2006. ‘Forever and Always Wright’. *The Oberlin Review*.