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DAMNED IF THEY AIN'T FLEW

by Ron Geibert

"There's one thing all of us want to do . . . to get up in the air. In my sleep I can fly . . . I fly all of the time. I can't get enough of it."

Jacques Henri-Lartigue
photographer, age 12,
Rouzat, France, 1906

Returning from a six-week trip to the sand dunes of Kitty Hawk, North Carolina, in 1901, two bicycle manufacturers from Dayton, Ohio, retreated to the darkroom in a wooden shed behind their home.

Processing exposed glass dry plates in a set of ruby-colored trays, they would "pass moments of as thrilling interest as any in the field, when the image begins to appear on the plate and it is yet an open question whether we have a picture of a flying machine, or merely a patch of open sky."2

Wilbur and Orville Wright, self-taught as photographers, would then contact print the negatives, often laboring over the sink with a child from the neighborhood standing alongside.

Family members, relatives and friends often participated in and enjoyed the photographs made by the Wright brothers. They used a 4 x 5 inch format camera to provide a visual diary of their work and recreation.

Friends would gather about the large dining room table at 7 Hawthorn Street, passing around newly-made photographs of neighborhood children, the bicycle shop, holidays and parties, local landscapes and newsworthy events (a fire, train wreck or flood).

The aesthetic improvement of the photographs from year to year was apparent as the brothers, sharing the camera, moved from static and centered subject matter to more innovatively composed images incorporating the entire frame and the foreground to background space.

Camping excursions and their Dayton neighborhood provided countless opportunities to challenge their artistic and technical expertise. One example is Wilbur Wright at Pinnacles near Dayton, Ohio, 1898.3

This photograph, in which a towering structure shadows Wilbur, is remarkably similar to many of the survey pho-
tographs of the 1860’s and the 1870’s by the famous landscape photographer William Jackson. The contrast of the diminutive figure with the rough terrain places the work within the context of one 19th Century attitude toward nature—the tenuous position of man on the land.

Other landscape photographs made by the brothers at the same time present yet another attitude toward the landscape—one of romantic reverence.

Photography was undergoing a technological and aesthetic revolution when Wilbur and Orville pursued it as a hobby in the late 1890’s and as a scientific tool and expressive medium in the early 1900’s. The slow and arduous collodion wet-plate process, a system that required the photographer to polish, coat, sensitize and develop the glass plate on the spot, had been replaced by more sensitive and convenient gelatin bromide dry plates. The Wrights’ requirement of short exposures to negate motion demanded the latest in this dry plate technology.

Improved and new films, such as non-halation emulsions with their increased sensitivity, allowed the brothers to make “instantaneous” photographs of their plane against the brilliant sky and reflective sands. By today’s standards the films were painfully slow, with outdoor exposures rarely shorter than ¼ of a second and often of one second duration.

Photographing interiors was even more difficult, with exposures stretching in excess of one minute. This exposure time could be drastically shortened by the use of a blinding magnesium powder flash (Plate 17).

Using photography as a documentary tool and as a visual interpretation of their experiments, the brothers wanted the clear and precise images that were only possible with a large view camera. During their trips to Kitty Hawk between 1900 and 1911, they used two different camera formats, a 4 x 5 inch in 1900 and 1901 and a 5 x 7 inch from 1902 on. Although improvements were also being made in the newly introduced roll films, the large negatives still provided superior grain structure and sharpness when contact printed.

The larger 5 x 7 inch wooden camera, a Korona, was purchased from the Gundlach Optical Company of Rochester, N. Y. This progressive company was founded by Ernst Gundlach, an immigrant from Berlin and a former optical designer at Bausch and Lomb.

The addition of a convertible anastigmat lens allowed the brothers to vary the focal length from a wide angle to a long lens. A combination that provided a slightly wide angle view was most often used as it increased the probability of the craft being captured on the photographic plate and gave a better sense of the place. A pneumatic shutter, film holders, focusing cloth and case completed the outfit.

Much of the time during the Wrights’ first visit to Kitty
Hawk in 1900 was spent in photographing the surroundings. Nearly all of the surviving negatives of this trip are landscape photographs and views of their camp.

Since the site had been recommended by the U. S. Weather Bureau as conducive to glider experimentation, Wilbur and Orville had come with high expectations. They must have been mildly surprised at the barrenness of the land; only a few twisted and wind-swept trees broke up the constantly shifting horizon.

In a letter to their friend Octave Chanute, Wilbur wrote: “To the north, northeast, east and southeast there is nothing but flat plain and ocean for a thousand miles nearly. It is an ideal place for gliding experiments except for its inaccessibility. The person who goes there . . . cannot depend on getting any needed article from the outside world in less than three weeks.”

Venturing out from their tent, they recorded the surf, sand and campground from many viewpoints. They also photographed local residents. The few people of Kitty Hawk, living in virtual isolation, must have been fascinated or skeptical, or both, when asked to pose.

The most striking of this group of pictures is a small portrait of great intensity entitled Life Saving Crew, Kill Devil Hill Life Saving Station, Kitty Hawk, 1900 (Plate 3). Interestingly, another shot of the group, without the variety of head postures and eye contact, lacks the intimacy and directness of the negative Wilbur and Orville chose to print.

The Wrights’ experience in photographing groups of people during the previous years in Dayton paid off handsomely in this instance. Whereas the portrait excelled in its directness, most of the other photographs taken of the land and glider displayed in comparison a timidity in the new environment.

Their attention was devoted almost exclusively to glider experimentation during their second trip in 1901. A topographical survey in photographs was made of Big Kill Devil Hill, the highest of three launching sites near their camp, and these photographs suggest the countless struggles up the hill that were to follow.

Dwarfed by the upended glider (Plate 7), Orville posed for Wilbur, providing a reference of scale. More confident of their calculations with the passing year, the brothers began their estimated 50 to 100 glides with exuberance amid the heat and swarms of mosquitoes.

In their 1900 experiments, when the glider/kite was controlled by tether lines, they had a relatively stable subject (Plate 1). The next year, though, the free glides complicated matters. The angle of descent and the speed with which the glider dropped were unpredictable.

The most difficult problem for the photographer was simply to catch the soaring craft within the frame. And working with a cumbersome camera on a tripod, there was time only to make one exposure per glide. With this limitation, both brothers were forced to trust their instincts of timing, to learn the field view of the lens and to work intuitively in contrast to their usual calculated, scientific approach.

Arriving at a successful combination of Wilbur’s “precise approach” and Orville’s “bubbling over with ideas and dreams” would make the following fall their most innovative and rewarding period of photography.

The grace and austerity in composition that the brothers began to exercise in 1902 is exemplified in the photograph Orville Wright skimming the ground, Kitty Hawk, October 10, 1902 (Plate 10). The harmony of motion and form between the glider and the overlapping dunes is eloquent in the small mauve colored print.

Nearly all of the approximately dozen other existing negatives of glider flights from this year exhibit the same handling and refinement in camera framing and use of delicate lines and shapes. Although each test glide carried real danger and uncertainty with it — and photographing them certainly involved a degree of luck — the repetitive flights honed the skills of the pilot and photographer alike. Trampling the moonlike landscape (Plate 12) for a better vantage point and making some glides for the purpose of taking photographs, the brothers made enchanting, yet frank images of the events and the location.

When the smaller hand held cameras such as the Kodak
enraptured the public and saturated society with “photographers” in the 1890’s and early 1900’s, the magical aura surrounding the camera operator was removed. To counter this loss of status, many professional and amateur photographers disregarded the unique qualities of their medium (incredible amount of detail, long tonal range, etc.) and turned to manipulation of the negative and/or print until it resembled a painting. This alteration of the characteristics of a photograph, often combined with allegorical or slightly soft-focused subject matter, was part of a movement known as Pictorialism.

In contrast, the Wrights’ scientific genius and aesthetic perception allowed them to make photographs contrary to the prevalent trends in “artistic” photography. Their fusion of straightforward documentation with a purity of photographic techniques was concurrent with the reawakening of straight photography that was taking place in part of the photographic community during this period.

Indeed, the photographs of the Wrights suggested the same ideals and spirit that Alfred Stieglitz and others were coming to realize and expound at this time in New York City: the recognition that the camera had its own set of aesthetics and needed to be free from the domination of painting.

Interested in craftsmanship and ignorant of political struggles and trends in the art world, Wilbur and Orville were producing images which were satisfying on both scientific and aesthetic grounds. They were, obviously enough, not producing the “villainous commercial trash, or . . . cheap arty stuff” that Stieglitz railed against.

If the brothers can be faulted in their photographic work at Kitty Hawk, it would be for the unevenness of their print quality. The early years (1900-1901) are represented often by drastically cropped prints, some only a few square inches in size, now in various states of fading and yellowing. Chemically stained from uneven and shortened processing, the prints are now probably no better or worse than when they were so hastily made by the brothers.

From 1902 on, the print quality was still occasionally rough, but it improved immeasurably. Using the larger 5 x 7 camera evoked an air of “seriousness” to their camera ven-
tures. As the brothers approached their goal of powered, controlled flight, photography became a more essential ingredient of their work. They became much more consistent in their use of the whole negative in framing, taking advantage of the large negative size to record the scene with clarity and accuracy.

Despite the harsh and contrasty light reflected off the sand at Kitty Hawk, the prints made by the brothers often exhibit the beautiful and subtle tonal gradations that are possible in a photographic print. In their Dayton darkroom, Wilbur and Orville would customarily make two or more contact prints from each negative for publication purposes and to keep up with their proud father’s urge to mail copies off to relatives and friends.

“Damned if they ain’t flew!” could be a more colorful title for First Flight, 10:35 AM, December 17, 1903 (Plate 18). The fact that this is one of the most widely published photographs in history demonstrates our fascination with the ability to escape the grip of the earth, if even for a scant twelve seconds.

We can only speculate as to the brothers’ thoughts as Orville positioned, focused and preset the camera yet another time. Occasionally the significance or difficulty of an event demanded the attention of both brothers and required that an assistant or visitor actually operate the camera shutter (Plates 4, 5, 11 and 18). Attempting the first powered flight was certainly one of those events!

The role of camera operator for the historic moment was delegated to John T. Daniels, a member of the Kill Devil Hill life saving crew. Carefully following Orville’s instructions, he released the shutter as the plane lifted from the launching rail, with Orville lying prone on the plane and Wilbur running alongside.

There could be no doubt among the observers that powered flight had been achieved and that this negative would not have a patch of open sky!

Wilbur and Orville continued to photograph after that eventful December day in 1903. During 1904 and 1905 they set up camp at Huffman Prairie, farmland located on the eastern outskirts of Dayton. Here they perfected the first
practical airplane. Often in view of passengers on the nearby interurban trolley, they would fly controlled circles and figure 8's with increasing speeds and altitudes. Flights in excess of 30 minutes gave them ample opportunities to make pictures.

Unfortunately, most of the photographs made at Huffman Prairie during this two year period are missing the gestural qualities and expressive use of light so characteristic of the earlier photographic work at Kitty Hawk and thus are ordinarily tame in both execution and concept. We can only speculate as to the reasons.

Perhaps the familiarity with the local setting — without the levels of viewpoint that the shifting dunes at Kitty Hawk provided — dampened creative energies. More likely the uniformity and regularity of the flights made documentation less significant. Possibly the Wrights felt that their "proof" now rested in a craft that could verify their claims in a far more convincing manner than any piece of paper.

For whatever reasons, their interest in photography began to wane. However, there were beautiful exceptions within the decline. A noteworthy example is Flight 46, Simms Station, October 4, 1905 (Plate 19).

Shifting from his usual horizontal to a vertical framing, Wilbur captured the energy and speed of the fabric-covered craft as it loomed over his shoulder into the view of the camera. The slightly askew horizon line and the blur of the plane give the image an improvised and authentic look. This photograph equals in design and intensity the gliding photographs of 1902 and the first flight image of 1903.

One or both of the brothers returned to Kitty Hawk twice after their 1903 success, before patent defenses, business concerns and Wilbur's premature death in 1912 disrupted their work. In 1908, both went back to Kill Devil Hill for flying practice, and in 1911 Orville made a series of record-setting glides there.

The gaps in their photographic activities (1906-1907, 1909) did not interfere with their making dynamic pictures during both these visits. They returned to a wind and scavenger damaged hangar that was haunting in its ravaged state (Plates 21, 56). With the carcass of the 1902 glider partially concealed beneath the sands, or the tenuously supported hangar door revealing discarded and sun bleached woodscraps, the photographer became an elegist, singing a song of desolation and, at the same time, suggesting the mythological phoenix.

Flight has always held a special fascination for Europeans. The sky had been invaded in Paris 125 years earlier (1783) by two French "aeronautes" aboard a hot air balloon designed by the Montgolfier brothers.

In the following centuries, the desire to fly infected people of all backgrounds and ages, including Jacques Henri-Lartigue, a child gifted with special artistic talents and recognized today for his work in the "snapshot" genre. Lartigue wrote in his diary: "We have many adventures at the Chateau de Rouzat with the giant kites Zissou (his brother Maurice's nickname) built with the help of Papa. I see them soar up to meet the clouds; it almost makes me dizzy to breathe in the air that makes them rise up so high, so high . . . "

Along with many other Frenchmen, Lartigue had followed and photographed the exploits of Gabriel Voisin and others as they attempted to match the published successes of the two young Americans, Wilbur and Orville Wright. French aviators tried to make copies of the 1902 Wright glider from photographs used in a Paris lecture in 1903 by Octave Chanute, an early aviation pioneer and friend of the Wrights.

Failing to grasp the principles of wing-warping and the interlocking between the warp and the rudder, these French efforts mostly met with failure.

By 1908, smug with a few successful "hops" and short distance flights, they were quite unprepared for the incredible performances of the quiet-spoken Ohioans who came to demonstrate in France, Italy and Germany.

Any remaining skepticism that the Americans' claims were valid was shattered with the words "Il vole, Il vole!" (he flies, he flies) when Wilbur took his flyer above the race course near Le Mans, France in 1908.

Of those August, 1908 days Wilbur wrote to Orville that "the newspapers and the French aviators nearly went wild with the excitement. Bleriot and Delagrange were so excited they could scarcely speak, and Kapferer could only gasp
and could not talk at all. You would have almost died of laughter if you could have seen them.” In another letter to Orville, he described one crowd of spectators with the words “princes and millionaires are as thick as fleas.”

At the public demonstrations in Pau, Rome and Berlin in 1909, the crowds sometimes numbered in the hundreds of thousands. The brothers’ advanced flyer, now able to carry aloft a passenger, had royalty and the famous vying to be asked to accompany Wilbur or Orville.

At least one of these flights met with an unexpected result. Mrs. Hart O. Berg, wife of the Wrights’ European business manager, tied the bottom of her skirt and coat closed prior to a flight as a safety and moral precaution. After the flight, when she walked away in tiny steps, skirt and coat still tied, a dress designer present took note and soon after the hobble skirt was the rage of the fashionable.

The large numbers of professional and amateur photographers at the public demonstrations in Europe and later in America made it less crucial for the Wrights to make their own photographs. Nevertheless, they were careful to acquire photographs made by others.

In addition to its documentation of flight, the collection of prints that they gathered in 1908 and 1909 is fascinating in its overview of both technical and aesthetic developments in photography of the time.

As the collection shows, the roll film and small plate cameras, some selling for only one dollar, had nearly taken over the photographic market. Kodak Brownie and Folding Pocket cameras and German “Klapp” or strut cameras gave the photographer a more mobile and rapidly working instrument. With the spontaneity in handling that the smaller camera allowed came many distinctive traits that we associate with the snapshot.

Truncated bodies, a temporal quality and looser compositional structure became part of the photographic repertoire (Plate 31). Everyone could make his own personal notations of what he saw and felt. Later the images could be sorted and arranged in albums with written identification or anecdotes added.

In one curious example from the collection (Plate 48), one photographer went to the point of even inking an “X” directly onto the negative, therefore printing a white mark to draw attention to a spot of significance. Inclusion of friends or relatives in the scene — or even oneself by asking a nearby stranger to press the button — gave real proof that the photographer was there (Plates 32-35).

Photographs with vitality and visual richness resulted from such techniques as panning the camera with the moving object to freeze it against a blurred background (Plates 32, 36) or by unconventional points of view (Plate 46).

These new visual possibilities with the smaller cameras are nowhere better illustrated in the collection than with the photograph entitled Man with camera watching Wilbur Wright fly past, Pau, France, 1909 (Plate 28). The photographer, one J. Callizo, captured within his frame a photographer attempting to do what he had already accomplished; to make an exposure of the the same rapidly moving flyer. This image, along with others in the collection likely made by Callizo (i.e. Plate 29), demonstrate how one talented photographer, with a feeling for space and design, approached the incredible events.

In 1909, the Wrights contracted to provide a demonstration in Berlin at Tempelhof Field for the newspaper Lokal-Anzeiger. The owner, August Scherl (or one of his photographers), produced a record of unparalleled completeness (Plates 37-47). The meticulously made prints give evidence of another photographer actively involved with the new freedoms allowed by the new hand-held cameras.

A sense of place and contact with the observers, combined with compositional elegance by the use of diagonals, gives life to the images. Crowds running to watch flight at Tempelhof, Germany, 1909 (Plate 47) is magnificent in the exhilaration and animation that it expresses.

As in France and Italy, crowds gathered, dressed in their finest apparel, to witness one of the miracles of the day. Vendors sold refreshments (Plate 37) or postcards of early aviation personalities. From photographs of the roped-off crowds and helmeted patrols, to the airplane being guarded in its
temporary quarters, Scherl presented to Wilbur and Orville unquestionably one of the most beautiful and outstanding groups of early flight photographs in the world.

Not all of the photographers who donated prints to the brothers at this time were quite as precise as Scherl in providing accurate descriptions of the Wrights’ flights. On more than one occasion photographers, using darkroom “magic,” combined two different negatives into one print.

Probably as a clever commemorative piece, one photographer printed the silhouette of a Wright Flyer over the Dayton skyline (Plate 51). Most likely the event was the Dayton Homecoming Celebration of 1909, when the flag bedecked city turned out to welcome the brothers home. The crowds even lined the roof-tops. Lest any unsuspecting individual grant authenticity to the print, however, Orville in his own handwriting labeled it “Fake” on the front and back surfaces.

Accuracy always played a crucial role in the Wrights’ experimentation, from the compiling of data from a wind tunnel apparatus (Plate 9) to the actual flights in the field. It seems appropriate then, that a descriptive process such as photography became a part of their work.

Much of the public was familiar with the social commentary photography of Jacob Riis and Lewis Hine, the war reportage of Matthew Brady and Alexander Gardner and the lyrical impressionism of Edward Steichen. Unfortunately, other than a published print here or there, it did not have access to the Wrights’ eloquent and elegant images.

In their photography Wilbur and Orville illustrate the view of the French art historian Pierre Francastel that “only artists and scientists see around them new groupings of phenomena; and they alone express them in transmissible terms capable of development. There is no contradiction between the evolution of science and art and the evolution of modern technique.”

The Wrights, primarily engineers and scientists, found in photography another outlet for their creative energy. In spite of the countless headaches and distractions that making photographs must have provided in the field, the brothers shared the roles of documentarian and visual interpreter between them, as they so uniquely shared everything in their lives.

In doing so, they provided a rare opportunity for posterity to share not only the product of their technical genius — the miracle of powered flight — but also the process by which that miracle was achieved. This documentation itself now provides rare insight into their own unique amalgamation of science and art.

In the classical myth, Icarus fell to earth when he dared to fly too close to the sun with his feather and wax wings. In 1901, in a moment of frustration and despair, Wilbur said that man would not fly within a thousand years. But within two years this negative prophesy proved wrong.

In 1903, the same sun that sent Icarus to his death provided the light that etched onto a silver-coated glass plate the image of Wilbur himself watching his brother fly past him on fabric covered wings.

NOTES


3 Photograph LC-W85-46, Prints and Photographs Division, Library of Congress, Washington, D.C.

4 Ibid., LC-US262-66293


6 The shutter used by the Wrights, in addition to having settings of 1/10, 1/4, 1/2, 1 and 2, had selections of T, B and I (Time, Bulb and Instantaneous). The brothers most often used the I setting which was probably about 1/2 of a second in duration.
The convertible lens consisted of elements 18", 12" and 10" in length. The 1\(\frac{1}{2}\) combination used most often had a focal length of 7 ½ inches and a maximum aperture of f/7.5.


Alfred Stieglitz was instrumental in bringing about the acceptance of photography as a fine art and introducing "modern art" onto the American scene.


Lartigue, Diary of a Century, unnumbered page.

Exclamation of 13-year-old Henri Delgove and a friend on witnessing the August 8, 1908 flight near Le Mans, as told to author Harry Combs, Kill Devil Hill (Boston: Houghton Mifflin Company, 1979), p. 281.


Fred C. Kelly, The Wright Brothers (N.Y.: Harcourt, Brace and Co., 1943), p. 247. (Katharine Wright, sister of Wilbur and Orville, is in a similar state of restraint in Plate 29.)

Orville gave up using the 5 x 7 view camera for aviation photographs after Wilbur's death. The camera was stored until the early 1930's when Orville gave it to his nephew Horace Wright, also an avid amateur photographer. The view camera miraculously survived the 1974 Xenia, Ohio tornado and is now on loan to Carillon Park, Dayton, Ohio. For most of the remainder of his life, Orville made personal photographs with a much smaller hand-held camera, a German-designed Goertz. Horace Wright interview.

The face of Count Ferdinand von Zeppelin is on flags and postcards in the collection photograph 18-9-50, Wright Brothers Collection, M S-1, Archives and Special Collections, Wright State University, Dayton, Ohio.


Kelly, p. 75.