

IMAGE

Journal of Photography of the George Eastman House

September, 1952

Vol. 1, No. 6

RE-DISCOVERY OF THE WORLD'S FIRST PHOTOGRAPH

by Helmut and Alison Gernsheim

A sensational find has just been made in England—the *world's first photograph* in the true sense—a picture taken from nature by means of a camera, and permanently fixed.

For years we followed the history of this photograph, taken by Nicéphore Niépce in 1826, until we had eventually established an unbroken record from its first appearance in England in 1827, through its many changes of ownership during the nineteenth century up to 1898, after which no further reference to it could be found. We knew the name of the owner at that date, and anxious to get in touch with her descendants, decided on a public appeal in a London newspaper. As a result, Mr. Pritchard, son of the last owner, wrote that the photograph and other historic Niépce relics had been unaccountably lost. Though only a boy at the time, he well remembered how upset his mother was about this. On the death of this gentleman, his widow came across the photograph in a trunk. The happy ending came when Mrs. Pritchard very kindly presented it and the other items to the Gernsheim Collection.

Long before Daguerre, Nicéphore Niépce, a scientifically minded gentleman living near Chalon-sur-Saone, began experimenting with photography. This was in 1816, but it was not until 1824 that he had some degree of success. This slow progress is accounted for by the fact that photography was not his sole interest: the invention on which he and his brother Claude expended most of their efforts, genius, and their entire fortune, was a combustion engine. Patented in 1807, this early engine did actually propel a boat on the rivers Saone and Seine, and the next twenty years were spent in improving and endeavoring to exploit it.

When the craze for the newly-invented art of lithography swept France in 1813, it attracted the attention of Niépce. Unable to draw well, he placed engravings, made transparent, on stones coated with light-sensitive varnish. This led to what Niépce later on termed "Heliography"—sun drawing.

The picture recently found is labelled "Niépce's first successful experiment from nature". It is 15 x 20cm, 6½ x 8 inches, on a polished pewter plate, and represents a view of the courtyard of his house taken from the window of his workroom. This view was an oft-repeated subject and Niépce himself gives a description of it in a letter to his brother in 1816, when he made his first camera experiments.



THE WORLD'S FIRST PHOTOGRAPH, taken by Nicéphore Niépce on a pewter plate in 1826 with an eight-hour exposure. On the left is a pigeon loft, to the right of it a pear-tree with a patch of sky showing through an opening in its branches. In the middle, the slanting roof of the barn. The long building behind it is the bakehouse, with chimney, and on the right another wing of the house. This rare original is in the Gernsheim Collection, London.

Niépce coated the plate with a solution of bitumen of Judea, soluble in certain oils in its normal condition but insoluble after exposure to light. The exposure in the camera lasted about eight hours on a summer's day. (In the view the sun is apparently shining on *both* sides of the courtyard!) After exposure, the latent image was rendered visible by washing the plate with a mixture of oil of lavender and white petroleum, which dissolved away the parts of the bitumen not hardened by light. The result was a permanent direct positive picture.

How did this photograph come to England? In 1827 Nicéphore Niépce arrived at Kew, near London, to visit his brother who was dangerously ill. While staying with him, Niépce was introduced to a famous botanist, Francis Bauer, F.R.S., who, recognizing the importance of Niépce's discovery, advised him to address a memoir on the subject to the Royal Society. The memoir dated "Kew, le 8 Decembre, 1827" was accompanied by several heliographs, which, however, with the exception of this photograph from nature, were reproductions of engravings. These specimens were returned to him together with the memoir, for the Royal Society felt unable to take cognizance of an invention, the details of which the inventor was unwilling to disclose. He thereupon presented his memoir and heliographs to Francois Bauer, and returned to France.

There is no absolute agreement as to the year in which Niépce first succeeded in taking a permanent view from nature, though most historians favor 1824. Only the late Georges Potonniée claimed 1822, but his assumption is untenable. In spite of the fact that this photograph is called Niépce's *first* successful experiment from nature, 1826 seems to us a more probable date for its production than 1824, considering the metal it was made on. For on 26th May 1826 Niépce wrote to his son: "I have sent for new pewter plates; this metal is more suitable to my object, principally for views from nature, because, reflecting the light more, the image appears much clearer. I congratulate myself, therefore, on this happy inspiration."

Accepting 1826 as the date of this photograph, it is nine years earlier than Fox Talbot's first paper negative (1835) showing the lattice window of his library (Science Museum, London), and eleven years prior to Daguerre's earliest surviving result, a still-life (1837) which is preserved at the Société Française de Photographie. The Niépce photograph which has now come to light is not only the world's earliest but it is also the inventor's sole surviving photograph from nature.

With this photograph, Mr. and Mrs. Gernsheim acquired the original manuscript, in Niépce's handwriting, of the memoir he submitted to the Royal Society, a second shorter memoir, sent to Bauer, and an autographed letter. These documents are published verbatim in The Photographic Journal, May, 1952, with a detailed discussion of the first photograph.

FORGOTTEN PIONEERS

IV: LOUIS DUCOS DU HAURON (1837-1920)

THE first step in taking a color photograph is to make records of the exact amount of the primary colors; red, green, and blue. There are many ways that these records are obtained and subsequently combined to reproduce the original scene in full colors.

It is almost incredible that Louis Ducos du Hauron, a young French pianist for whom a brilliant musical career had been predicted, should have anticipated most of these techniques at the time when the needed materials were not even available.

In his book, *Photography in Colors; solution of the problem*, published 1869, du Hauron described what he called the "indirect" method for taking pictures in colors. He reminded his readers that the "direct" technique of the daguerreotype had long since been replaced by the negative-positive method of the talbotype, and the collodion wet plate. He predicted that an analogous two-step system would replace the unsuccessful attempts then being made to find substances which would turn to the color of the light which fell upon them.

In his book, du Hauron described a practical, subtractive technique for obtaining both transparencies and prints. Although we are not too sure what was actually meant by some of the colors he designated, his procedure was to first make three negatives through "green," "violet", and "orange" glass filters respectively; probably the filter would today be described as green, blue-violet and red-orange. These negatives were then printed on dichromated gelatin plates dyed red, yellow, and blue. The resulting positives, when placed on one another in register,



LOUIS DUCOS DU HAURON, who in 1869 predicted techniques made practical years later by others. He also invented a camera with crossed slits instead of a lens, with which to take caricatures such as this self portrait.

would produce a full color photograph. Years later, this subtractive process was made to work, and both the carbonyl and dye transfer processes of today are based upon this technique.

Du Hauron also reasoned that a screen finely ruled with red, yellow, and blue would appear gray when viewed from a distance. If any of the colored lines were obscured, the colors of the remaining lines would mingle to give other colors. He proposed to expose a photographic plate through such a screen so that the black and white densities would control the colored areas. This process—in principle—was later made to work, with the important modification that the additive primary colors red, green, and blue were used on the screen. The once popular Autochrome process was an adaptation of this invention.

These were not the only contributions by du Hauron to color photography. He was the first to describe a "one shot" camera—lens camera with mirrors with which all three separation negatives could be exposed at once. He called this prototype of all later one-shot cameras the "photochromscope." Du Hauron was also the first to describe how separation negatives could be made by exposing two or three photographic plates in contact. He thus predicted the separable tripack and bipack systems. His most time-consuming project was the attempt to perfect photo-mechanical color reproduction.

His inventive genius was not limited to color photography. In 1864, he received a French patent for a motion picture apparatus. In 1888, he was granted a patent for unusual photographic effects and distortions by the use of "two elongated slits." Five years later he wrote a pamphlet about the "anaglyph", his invention for getting a stereoscopic relief effect by printing pictures in red and blue, and then viewing them through red and blue eyeglasses. This last device opened an entirely new field in photography, which today finds its special application in aerial surveying.

Although du Hauron was honored with medals, he died in 1920, destitute and almost forgotten. The only real compensation for a lifetime of research that he received was the satisfaction of having seen so many of his ideas put to practical use.

SARONY'S CAMERAMAN

WHEN Napoleon Sarony opened his famous New York photograph gallery in 1861, he put in the paper that he needed an "operator." The advertisement caught the eye of a young, seafaring adventurer with an interest in photography, Benjamin Richardson. "Ben" applied for the position, got it, and remained with Sarony as his cameraman for thirty-four years. During that time he photographed a galaxy of stage stars, and many of the great and near-great in other fields. Certainly he saw more celebrities upside down than any other American of his time, as, with head under the velvet cloth, he focused them on the ground glass.

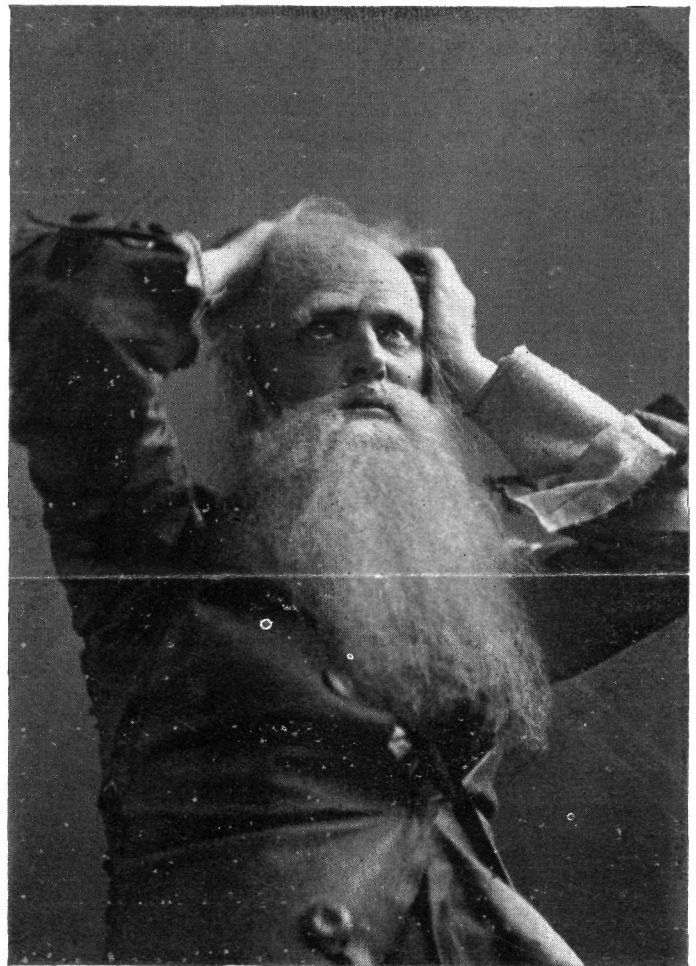
Just before Richardson died, in 1925, at the age of ninety-one, he gave a reporter an account of his first meeting with Sarony. "I took up photography when I left the sea ... I read an ad in the paper that Sarony wanted a man and to him I went. There was a man named Alfred Taylor that I saw first and he said to me, 'I have the privilege of hiring and firing here.' 'I'll have no dealing with you.' I said to him; 'It's Sarony himself I want to see.' So I saw him. He was five-foot nothing, with a monkey jacket, Hessian boots and an undyed astrakhan jacket. 'Where did you work before?' he asked me. 'None of your business.' I said. He took his fist and drove it into the counter with a mighty blow. 'Go upstairs,' said he, 'and go to work.' 'Upstairs I went and was there for thirty-four years.'"

The impulsive, warm-hearted Sarony was one of the most picturesque figures in American photographic history. He was considered by many to be a fine artist, but above all he was a showman who dramatized himself and his establishment so successfully that his gallery became one of the most popular of the three hundred that catered to the vanities of New Yorkers who wanted their "picture taken."

Sarony was a pioneer in theatrical photography and was among the first to discard stiff and conventional methods of posing, using his own dynamic imagination and humor to secure from his patrons portraits that were dramatic and arresting. His waiting room was a museum, cluttered with curios and objets d'art. Sitters waiting their turn for the great little man's attention, could feast their eyes on the portraits of celebrities that covered the walls; some with interest, others wistfully, and a few with the assurance that their photograph, done with the "consummate artistry" of Sarony, would find its place somewhere in that crowded hall of fame.

The flourishing signature of Sarony was his trade mark. It covered the facade of his gallery in huge letters, and sprawled across the corner of hundreds of thousands of mounted photographs made in his establishment. It is estimated that at least 40,000 pictures were taken in that studio, and "Portraits by Sarony" meant the best in portrait photography of that period. But of course that did not mean that Sarony himself took those pictures. It was his custom, as well as that of his contemporaries, to employ cameraman operators they were called to do a large part of the photographic work. Benjamin Richardson was Sarony's chief cameraman.

After Sarony's death, in 1896, Richardson said, "When I knew him he was a man to make things hum. Sometimes when



JOE JEFFERSON in his famous role of Rip Van Winkle, 1869. One of the most popular of Sarony's theatrical photographs, it was taken by Benjamin Richardson, his chief cameraman.

things were quiet under the skylight, suddenly his step would be heard on the stairs followed by half a dozen sitters. 'Put in a plate, my boy.' Answer would go back, 'Hi, hi, your honor.' and then things would be quite lively for a time."

Of these full and exciting years Richardson reported, "Everybody came to Sarony's to be photographed in those days. I took the picture of McKinley that is on the ten dollar bills. I photographed Jim Corbett and Henry Ward Beecher many times. All of the men interested in the laying of the Atlantic Cable posed for me. I took Ole Bull, the famous violinist, the best of his day. And Joe Jefferson, the great actor. Clara Morris and Rose Coghlan. Mrs. Scott and General Hancock. General Grant missed the golden opportunity. He did not come to our place. Lincoln missed an appointment to sit for a picture there when he was shot. Lily Langtry sat for me and I think Oscar Wilde did but I'm not sure of that. They were thirty-four fine years and I knew everyone and everyone knew me."

When Richardson retired he devoted his time to painting, a long-frustrated interest. James McNeil Whistler once told him, "Ben, why don't you give up this work and study art? You would be great." Richardson answered, "The only reason is I have a family to support." Some of his etchings were hung in the National Academy of Design, but he did not achieve his ambition to become a distinguished painter. However, he lives

now in photographic history because he was Sarony's cameraman. As such he deserves a place, with those whose photographs covered the studio walls, as one of Sarony's celebrities.

Of the quantities of photographs which he made Richardson put aside fifty as his best. These are now owned by his daughter, Mrs. Robert T. Dodd, who lent them to the Eastman Honse.

THE AUTOBIOGRAPHY OF EMIL JANNINGS

Theatre, Film—Das Leben Und Ich, by Emil Jannings
Zimmer and Herzog, 1951. Berchtesgaden
220 pgs illustrated.

THOSE who recognize the silent film as having established the fundamentals of motion picture art will concede a vast importance to German films of the so-called Golden Period.

These great Gothic pieces, steeped in heavy shadow and tragic denouements, have been variously cited as examples of German escapism, guilt-consciousness and even as foreshadowings of the dark reign of Hitlerism.

Better understanding of the German films is wanted and students of motion pictures will welcome the recent, posthumous publication of the autobiography of Emil Jannings, one of the greatest figures in German films. The book was written in 1939. Jannings, annoyed at having to correct proofs, threw the manuscript aside. It remained forgotten until his widow brought it out for the world to read.

The book is full of anecdotes. It is well illustrated, and it contains surprising pieces of information. For example: Contrary to the publicity information given out when Jannings acted in California, he asserts that he had never set foot in America before 1926, when he came to work for Paramount.

His father was an American, who made frequent business trips to the States. His mother a Russian-born German. But Swiss-born Emil remained in Europe until film stardom brought him to Hollywood.

The biggest surprise in his book is Jannings' own admission that he alone was responsible for the shocking ending of *Der Letzte Mann* (The Last Laugh). With an abrupt shifting of gears, Murnau's masterpiece was transformed from almost unendurable tragedy to a rollicking comedy with a gay and sparkling finish.

For this controversial, mood-shattering transition either the producers have been blamed or the director praised. But Emil Jannings asserts that he spent hours arguing with Murnau, the director, that as the film was planned, the tragedy was too epic in its weight to be visited upon a simple hotel porter; he maintained the film would be a monstrosity without the saving change of pace at the end.

There are other surprises: Jannings himself wrote of *The Last Command* and sold it to Paramount for "\$25,000 bucks."

The autobiography is illustrated with over sixty full-page stills, chosen from Frau Jannings' personal collection. Of course they include Jannings in most of his roles; his film career alone ran from 1914 to 1942. More intimate scenes show other celebrities: Jacques Feyder, Erich Pommer, Pola Negri, Conrad Veidt—and even Greta Garbo in bathing suit, leaning back in Jannings' arms, a rapturous, sun-bathed smile on her incomparable face.

It is our loss that the autobiography ceases in 1939. There is consequently no account of the ultimate tragedy in the life of this great tragedian of the screen. After 1942, Jannings was banned from the studios because of his cooperation with the government of the Third Reich. He had illustrious company in this cooperation: Furtwaengler, Paul Wegener and Werner Krauss.

Of these, Jannings alone was never granted cultural absolution. He spent his last days in retirement by his beloved Wolfgangsee. The next to last picture in the book is sad and a little ironic: Werner Krauss lets a handful of earth fall into the open grave of Emil Jannings.

Pigeons and Microphotography

In the first issue of *Image*, a brief account was given of the early use of microphotography during the Siege of Paris in 1870-71. Messages, reduced to microscopic dimensions by photography, were sent to the beleaguered city by carrier pigeon.

A new account of this spectacular predecessor of the V-mail of World War II has just been published. It is the eye-witness account of a post office inspector and an amateur photographer, De Lafollye, who was given the task of organizing the work. His personal collection of sample microphotographs, and the French manuscript account was recently acquired by George W. Angers, of Springfield, Mass. Mr. Angers has translated the Memoir, and has privately published a limited number of copies.

IMAGE is proud to publish the important discovery of Mr. and Mrs. Gernsheim. Historians for decades have known that the first camera picture was taken by Nicéphore Niépce, but all they could point to in evidence were letters and the pictures he made using engravings as negatives.

The editors hope that, from time to time, equally important contributions to the history of photography will appear in the pages of *Image*. Our columns are open to all who are interested in tracing the development of the camera and photography. Unsigned articles which appear in these pages may be reprinted, providing that credit is given to the George Eastman House.

IMAGE, Journal of Photography of the George Eastman House, 900 East Avenue, Rochester 7, New York. Editors: Oscar N. Solbert, Beaumont Newhall, James G. Card. Associate Editor: Marion N. Gleason. Editorial Assistants: Esther L. Kominz, Charles Schaufelberger, Warren C. Stevens, Howard Keith Stott, Erwin J. Ward. Printed in U. S. A.