

Christ Church Upper Library

Lewis Carroll and the Art of Photography in the 19th Century

THE OTHER SIDE OF THE LENS



The exhibition curated by Edward Wakeling, Allan Chapman, Janet McMullin and Cristina Neagu will be open from 4 July to 30 September 2015.

The Other Side of the Lens: Lewis Carroll and the Art of Photography during the 19th Century is curated by Edward Wakeling, Allan Chapman, Janet McMullin and Cristina Neagu and will be open from 4 July ('Alice's Day') to 30 September 2015.

The main purpose of this new exhibition is to show the range and variety of photographs taken by Lewis Carroll (aka Charles Dodgson) from topography to still-life, from portraits of famous Victorians to his own family and wide circle of friends. Carroll spent nearly twenty-five years taking photographs, all using the wet-collodion process, from 1856 to 1880. The main sources of the photographs on display are Christ Church Library, the Metropolitan Museum, New York, National Portrait Gallery, London, Princeton University and the University of Texas at Austin.

Visiting hours:

Monday: 2:00 pm - 4.30 pm;

Tuesday - Thursday: 10.00 am - 1.00 pm; 2:00 pm - 4.30 pm;

Friday: 10:00 am - 1.00 pm.

Framed photographs on loan from Edward Wakeling
Photographic equipment on loan from Allan Chapman
Exhibition catalogue and poster by Cristina Neagu

THE OTHER SIDE OF THE LENS

Lewis Carroll and the Art of Photography



'A Tea Merchant', 14 July 1873. IN 2155 (Texas). Tom Quad Rooftop Studio, Christ Church.
Xie Kitchin dressed in a genuine Chinese costume sitting on tea-chests portraying a Chinese 'tea merchant'.
Dodgson subtitled this as 'on duty'. In a paired image, she sits with hat off in 'off duty' pose.

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Croft Rectory, July 1856. IN 64 (Princeton).
Croft Rectory, at Croft-on-Tees, Yorkshire, was the Dodgson family home from 1843 until 1868.
This photograph was taken during Dodgson's return to the Rectory for the summer holiday in 1856.

CHARLES LUTWIDGE DODGSON AND HIS CAMERA

THE ORIGINS OF PHOTOGRAPHY

In the days of Lewis Carroll, or, to give him his correct name, Charles Lutwidge Dodgson, photography was new, both as an art and as a science. Although the camera obscura had been used by artists to delineate perspectives since the Renaissance, and it was known that silver salts went black in sunlight, no one had been able to combine the two, so that the lens-projected image inside the camera obscura could be permanently captured to obtain a 'light-drawing', or *photograph*.

This problem was solved by a Frenchman and an Englishman, working quite independently, and using different techniques, between 1835 and 1840: one of several instances in the nineteenth century where an Englishman and a Frenchman made a simultaneous discovery!

Louis Daguerre worked as a scene painter and diorama artist in the Parisian theatres, and had long been experimenting with the fixation of chemical images, largely in the wake of the experimental work of the French country gentleman-scientist Nicéphore Niépce in the 1820s.



The Tennysons and Marshalls, 29 September 1857. IN 310 (Princeton).
 Monk Coniston Park, Ambleside, Lake District.

This interior photograph shows Alfred Tennyson (1809-1892) with his son, Hallam Tennyson, on his lap, together with Mr and Mrs James Marshall and their daughter Julia. Tennyson was short-sighted, hence his bewildered stare.

In the Daguerreotype process of 1839, a silver-plated piece of copper treated with heated iodine or bromine vapour formed a light-sensitive surface – silver iodide or bromide – which Daguerre placed inside his camera obscura, and obtained a stunning, needle-sharp picture of the world in front of the lens. Daguerre ‘developed’ out, or strengthened, the resulting faint ‘latent’ image by then exposing the plate to the fumes given off by heated mercury. His pictures of Paris in 1840 are both breath-taking in their clarity and strangely ghostly in their absence of people in the noon-tide boulevards. For Daguerre’s process needed such a long exposure-time that no pedestrian, horse, or carriage remained in the same spot long enough to register on the plate. Daguerre’s pictures, however, were all ‘one offs’, just like paintings, and the only way he could reproduce a picture was by re-photographing the original scene.

William Henry Fox Talbot was an English country gentleman scientist and Fellow of the Royal Society. In the mid-nineteenth century, most British scientists, including most Fellows of the Royal Society, did not hold formal, paid, academic posts, but funded their researches into a wide range of sciences on the strength of their own private resources. Nicéphore Niépce was a similarly-circumstanced Frenchman.



Alice Liddell, Summer 1858, The Deanery Garden, Christ Church. IN 355 (Princeton)..

It was for Alice Liddell, daughter of the Dean of Christ Church, that Dodgson wrote the original story *Alice's Adventures Under Ground*, based on tales told during a boat-trip with two of her sisters, Lorina and Edith, and Robinson Duckworth, on 4 July 1862.

It was Fox Talbot who demonstrated the first negative-positive photographic process. Instead of a silvered metal plate, Fox Talbot used a sheet of very fine-grain paper, to which he applied silver iodide and silver bromide solution with a brush, and which could then be stored. When required for use, the paper was activated by washing with acetic acid and silver nitrate. And then, in a dark room, it was placed while still wet at the focus of his camera obscura (or 'mousetrap', as his wife nicknamed his small wooden box with a lens). After a 6-minute exposure the paper was then developed in a solution of acetic acid and silver nitrate. This caused the places where the strongest light had been focused, the 'highlights', to become darker, while the shadows remained blank.

The 'reversed' image, with light replaced with dark, and vice versa, was termed a 'negative' by Fox Talbot's friend, the astronomer and scientist Sir John Herschel, while the original image, or that created by a second reversal, was a 'positive' image.

In this way, Fox Talbot, was able to convert his camera-produced ‘negative’ into a ‘positive’ picture. But first, he had to render the paper ‘negative’ translucent by rubbing it with wax or oil. He then laid the dried ‘negative’ upon a fresh sheet of silver bromide or chloride treated piece of good-quality drawing paper, and exposed them to bright sunlight. The lights and darks were now reversed, and one now had a black-and-white photograph. The only drawback was the often slight ‘grainy’ or ‘soft focus’ appearance of the final picture, caused by the natural fibre structure of the paper ‘negative’.

Yet as Fox Talbot told Herschel, the problem with his ‘calotype’ method was that his beautiful photographs could only be looked at in shaded light, for the silver salts still remaining in the paper gradually went black, thereby destroying the image. But Herschel, drawing upon his earlier researches into the chemistry of silver salts, realised that the way forward lay in immersing the picture in a solution of ‘hyposulphite of soda’ (sodium thiosulphate): photographer’s ‘hypo’, no less. This chemical could dissolve unwanted silver salts while leaving the image perfectly unchanged, so that the pictures could be enjoyed in full daylight without risk of damage.

The classically-educated Fox Talbot coined the name ‘calotype’ for his pictures from the Greek words *kalos* (‘beautiful’) and *tupos* (‘impression’).

Because this treatment rendered the black-and-white image permanent, it was named ‘fixation’, and Herschel’s chemical would be immortalised as ‘photographer’s hypo’. It would remain in standard use right up to the advent of digital photography in our own time.

Which brings us to the process which, after 1852, would supersede both Daguerre’s and Fox Talbot’s processes. This was the ‘wet collodion’ process, and it would be the one which the Revd Charles Lutwidge Dodgson M.A., Student (or don) of Christ Church, Oxford, tutor in mathematics, and creator of *Alice in Wonderland* and its successors, would use.

THE ‘WET COLLODION’ PROCESS AS USED BY MR DODGSON

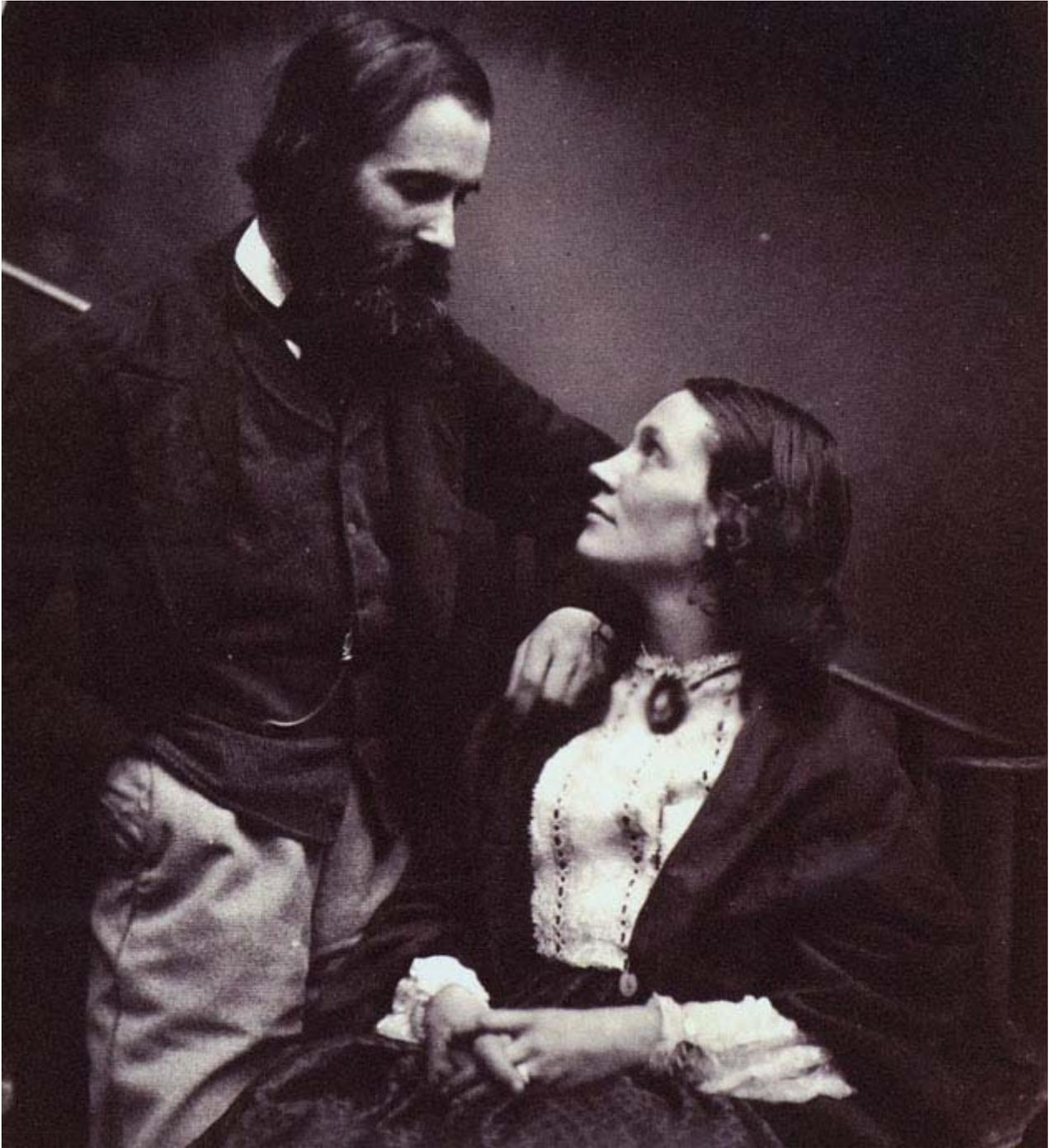
The wet collodion process drew upon the very latest advances in contemporary physical chemistry, and would have been unthinkable a decade before the Englishman, Frederick Scott Archer, announced it in 1851. Following upon the accidental invention of nitrocellulose guncotton explosive by the Italian and German chemists, Ascanio Sobrero and Christian Friedrich Schönbein (also the discoverer of ozone), and others, the Frenchman Louis-Nicolas Ménéard found that when the explosive nitrocellulose cotton – pyroxylin – was dissolved in the new surgical anaesthetic, ether, and alcohol, a thick, transparent fluid that would adhere to glass was produced. This was collodion, and an early perceived usage was as a surgical styptic.

Scott Archer realised, however, that it could be used to make a perfectly transparent photographic emulsion, when carefully spread across a clean glass plate. Early experiments were extremely encouraging, for Frederick Scott Archer’s wet collodion process combined the best of both Daguerre’s and Fox Talbot’s processes, and added several more of its own.

For now that glass could be used to carry the light-sensitive photographic emulsion, one avoided the ‘graininess’ inevitable with a treated paper ‘negative’, and could enjoy the needle-sharp clarity of the one-off silver-plate Daguerreotype. In short, one could print as many beautiful sharp prints as one chose from one collodion-based glass plate.

And in addition to those advantages, Scott Archer’s collodion emulsion plates were much ‘faster’, or more light-sensitive, than either of the other two. This meant that in bright sunshine, only a few seconds might be necessary to secure an image, rather than a whole minute or more.

This was the process used by C. L. Dodgson around 1860 to take his photographs of Alice Liddell and his Christ Church and other friends. And this is what he, like any other wet plate photographer, would have done.

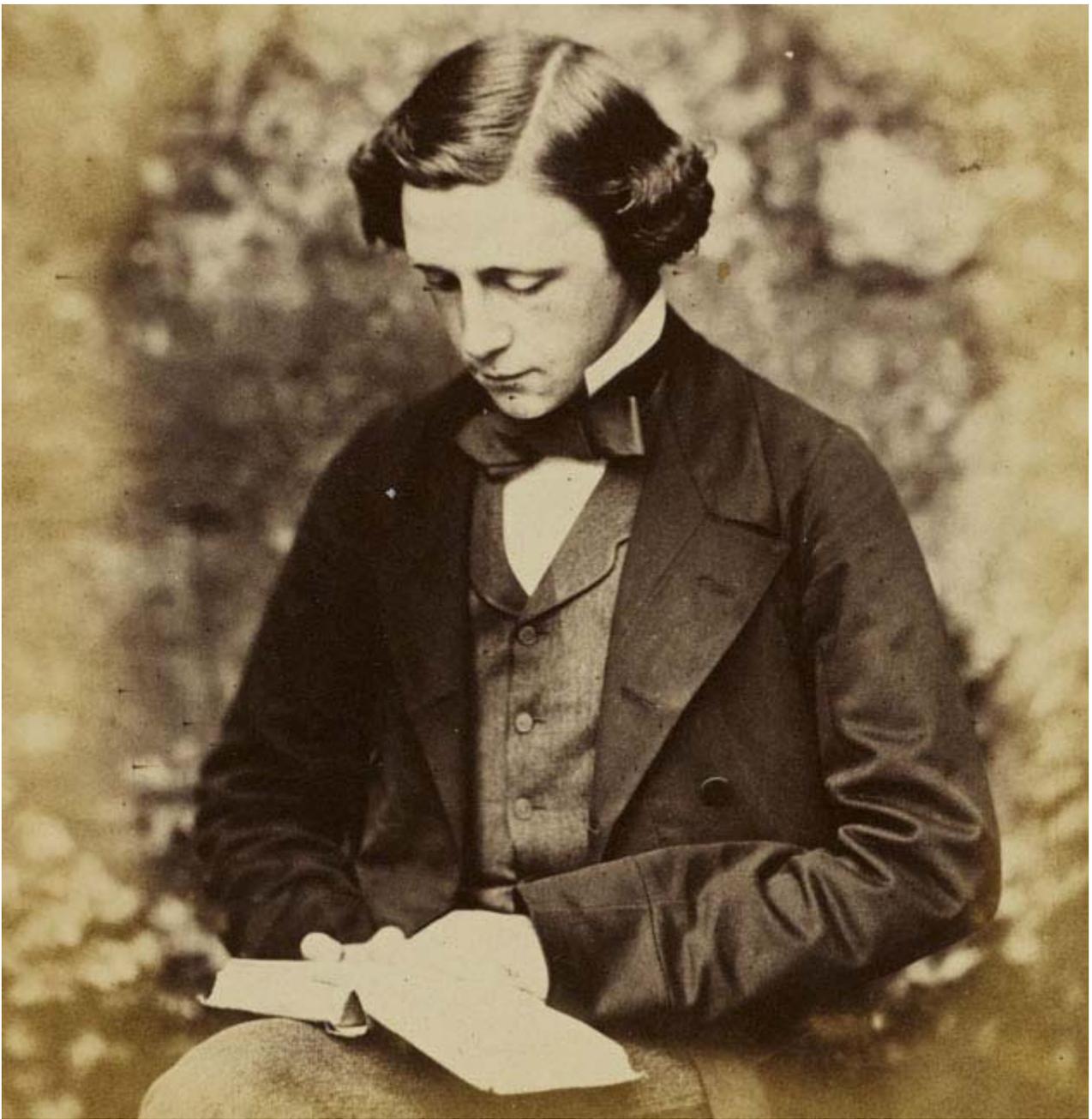


Alexander Munro and Wife, 7 October 1863 16 Cheyne Walk, Chelsea. IN 1136 (Texas).
The sculptor, Alexander Munro (1825-1871), and his wife Mary née Carruthers (d. 1872), photographed in Rossetti's garden.
Dodgson also photographed a number of Munro's sculptures.

TAKING A WET COLLODION PHOTOGRAPH

1. Dodgson first washes and polishes the glass plate to render it wholly clean.
2. He then holds the plate horizontal with one hand, and with the other gently pours some collodion onto it from a bottle. The plate is gently tilted around, until the collodion solution covers it in a perfectly thin, even layer.
3. He goes into a darkened room, dimly lit by a candle, either shaded or else covered with a red glass (to which light colour the emulsion was not sensitive, and so would not blacken) .

4. He now places the collodion-coated plate into a dish, or deep trough, containing a solution of silver nitrate. The photo-sensitive silver halides – iodine and bromine – being already present in the collodion mix, now react with the silver nitrate to produce an enhanced-sensitivity compound which goes black in sunlight. But the plate is also capable of receiving a *latent* image after a very short exposure in the camera. This latent image is invisible to the eye, being produced by silver atoms in the silver halides, yet could be activated to darken and produce a full photographic image when immersed in ‘developer’ solution, as we shall see in (9) below.
5. Still in semi-darkness, he now lays the plate inside a thin wooden ‘dark slide’, with its newly-sensitised collodion emulsion surface uppermost. The sliding wooden door of the dark slide, with its black velvet light seals, is then shut, enveloping the plate in total darkness.
6. Dodgson now carries the dark slide and plate to an already prepared, set-up, and focused camera. He slips the dark slide into place, at the back of the camera, at the focal point of the lens. The camera is completely dark inside, a tight cap having been put over the lens after focusing on the subject to be taken.
7. The dark slide cover is now pulled up, exposing the plate in the still dark camera. Now, making sure that his subject, perhaps Alice, is ‘sitting comfortably’ and ready, Dodgson dexterously removes the lens cap and counts – one, two – then replaces it. (Or maybe he activates a spring shutter, as shutters were coming into use in the 1860s.)
8. The dark slide cover is now slid back into place, enclosing the plate once more in total darkness, and the dark slide itself is removed from the camera, and taken into the dark room.
9. Dodgson removes the plate, and gently lowers it into a prepared dish of iron sulphate and glacial acetic acid. These substances act as a ‘developer’, having a chemical ‘reduction’ effect on the silver salts contained in the emulsion, causing those salts most deeply affected by highlights during exposure to turn black, while the half-tones become shades of grey.
10. After development, he removes the plate, still in semi-darkness, and washes it thoroughly.
11. Dodgson now places the developed plate in a dish of ‘hyposulphite of soda’ (sodium thiosulphate). This ‘hypo’ dissolves away all of those silver salts *not* affected by light in the camera, to leave clear glass on the negative. Were these un-activated salts not dissolved away in the hypo, they would go black in daylight, and ruin the entire photograph. The ‘hypo’, therefore, ‘fixes’ the photograph, thus rendering the image permanent.
12. The whole of the above process must be completed within a few minutes, from first pouring the collodion onto the plate, to the drying of the finished glass image. Everything *must* be done before the collodion has time to dry out, otherwise the image will degrade. Hence its name: the ‘wet collodion’ process (‘wetness’ referring not to water, but to the inherent chemical moistness of the compounds present in the collodion).
12. The new plate is thoroughly washed in alcohol, then dried in air.
13. Taking the new plate with its negative image back into the darkroom, Dodgson next takes a sheet of fine artist’s drawing paper which he has previously soaked in a solution of silver chloride, dried, and stored in the dark. He would normally have built up a stock of these dry sensitised papers.
14. He then places a sheet of this silver chloride sensitised ‘printing out paper’ (POP) inside a glass frame, similar to a normal picture frame. On top of the sheet, with collodion emulsion adjacent to the paper, Dodgson then puts his glass plate with its negative image. A pair of clips keep plate and paper tightly clasped together.
15. The frame is now taken outside, hopefully into full sunlight. Those parts of the sensitised paper not covered by the darker parts of the negative image now let the most light through, and gradually the paper visibly darkens before the eye.



Charles Lutwidge Dodgson, assisted self portrait, 2nd June 1857 (Christ Church Library).

Dodgson took this photograph of himself, with the assistance of Alice's older sister, Lorina, on 2nd June 1857. His diary records: "Bought some Collodion at Telfer's, as Armitstead had failed in bringing any, and spent the morning at the Deanery. ... Harry was away, but the two dear little girls, Ina and Alice, were with me all the morning. To try the lens, I took a picture of myself, for which Ina took off the cap, and of course considered it all her doing!"

16. When Dodgson estimates that the image is properly 'printed out', the photographic paper is removed from the frame, and put into 'hypo' to remove the un-activated parts of the image, and make it permanent. This is a 'positive' image. It should be emphasised, however, that not a trace of 'hypo' must touch the paper before 'printing out' is complete. Otherwise, the eventual image is spoiled by unsightly white blemishes.
17. Rather than using a direct sunlight printing technique, some photographers preferred to develop the paper in pyrogallic acid or other chemical 'reducing' agent. For a chemical development of the image (as opposed to direct sunlight 'printing out'), the paper had to have been impregnated with silver bromide.
18. Either way, one now has a 'fixed' or permanent black-and-white paper photograph, with lovely half-tone shades. And from his original glass plate, with its own permanent 'negative' image, Dodgson can print off as many copies as he pleases.



Wilfred Dodgson and his 'Boneshaker', September 1869. The Chestnuts, Guilford. IN 1754 (Texas).
Dodgson's brother, Wilfred, is seen posing on his 'boneshaker' velocipede (bicycle). This was not an easy machine to ride, and on at least one occasion he recorded a serious fall from which he took some days to recover.

THE ACHIEVEMENT OF THE WET COLLODION PROCESS PHOTOGRAPHERS

As one can see, the wet collodion process was very complicated, and demanded a considerable knowledge of practical chemistry and great manipulative dexterity. Indeed, C. L. Dodgson possessed all of these skills, combined with an artist's eye when it came to composition and creating a picture. He owned at least one camera, and this, along with a box containing his chemicals and bottles, are on permanent display in the Basement Gallery of the Museum of the History of Science, Broad Street, Oxford.

Of course, one needed a darkroom to perform the process, and if Dodgson, or any of his fellow-photographers, wanted to take pictures away from home, they had to take a portable darkroom with them. This might be a tent made of thick black cloth, or a horse-drawn darkroom van on wheels.

The pioneering war photographers, Roger Fenton and Matthew Brady, used such horse-drawn photographic vans – portable darkrooms – to cover, respectively, the Crimean War, 1855, and the American Civil War, 1861-1865. We are still amazed by the crystal clarity of their photographs, as we are with Dodgson's more peaceful pictures. Yet



The Broad Walk, Oxford, June 1857. IN 213 (Princeton).
This view of the Broad Walk at Christ Church with four undergraduates in the foreground was taken from a window in rooms occupied by Reginald Southey.

Fenton and Brady, just like Dodgson, could not photograph *movement*, as exposure times needed to be too long, even if only one or two seconds in bright sunshine, thus reducing any moving object to a blur on the plate.

And perhaps the most iconic wet plate portrait photographer was Mrs Julia Margaret Cameron, wife of a senior Civil Servant in the Imperial administration. When in England in the 1860s, they took up residence at Dimbola House (named after their Ceylon estates), near Freshwater, on the Isle of Wight. And having been given a camera for a present, Julia Margaret soon turned herself into the best-known portrait photographer of the age. Her portraits of Lord Alfred Tennyson and Sir John Herschel defined these men's historical personae. I am not sure whether she ever met Dodgson.



Xie Kitchin as Dane, 14 May 1873. IN 2424 (Christ Church Library).

Gold-toned print from original wet-collodion glass negative.

This was one of Dodgson's favourite photographs of Xie and many prints survive.

The one which has now reached Christ Church however is rather unique.

The note on the back of the image reveals it as the sitter's own copy, later passed on to her daughter.

There is also a possible fingerprint of Dodgson on the Christ Church copy.

AFTER WET COLLODION

It was in the early 1870s that the next great breakthrough in photography came about. This was when experimenters realised that gelatine could also be used as a base for a photographic emulsion. And as gelatine could be used dry, without a loss of sensitivity, this heralded the advent of 'dry-plate' photography. Now a photographer could make up his or her plates in advance, and use them at leisure. A plate could, if necessary, be developed weeks or even years after being taken, and still produce a perfect image.

These new dry gelatine plates, moreover, were much more light-sensitive than anything before, thus enabling an image to register in a small *fraction* of a single second. Instantaneous photography was now possible, and one could capture images of moving objects without blurring.

By the late 1870s one could purchase commercially-manufactured plates, and in 1878 George Eastman in the USA developed a machine for the commercial manufacture of 'dry' gelatine plates. A decade later, Eastman began to coat a dry gelatine emulsion first on paper, then later on the newly-developed transparent plastic, celluloid. Thus, roll film was born. In 1888, Eastman invented snapshot photography with his early paper roll film box cameras, using the slogan 'You press the button, we do the rest.' The whole roll film having been exposed, it was posted back to Eastman's company for the development and printing of the 'snapped' photographs. Eastman's camera company was named 'Kodak'. One of its early advertisements showed a little girl taking a 'snap' with a roll film box camera! It would be Eastman's adaptation of flexible acetate-based celluloid that made possible the photographic 'film' of early cinema.

During Dodgson's lifetime, photographic emulsion speed increased enormously. Daguerre's and Fox Talbot's plates required several minutes' exposure to record a good image, whereas a wet collodion might only require a couple of seconds. Dry plates, however, were sensitive to a fraction of a single second, making it possible for Eadweard Muybridge in the early 1880s to make a 'freeze frame' study of the exact sequence in which a running horse places its hoofs on the ground. Early cinematograph cameras exposed and recorded sixteen single-frame pictures per second on the rapidly-moving acetate film, each frame being crisp and sharp. And with the French 'Autochrome' process after 1903, colour photography was born.

So when Charles Lutwidge Dodgson, born in 1832, was a small boy, Daguerre and Fox Talbot were perfecting their respective processes, and he was in his thirties when he was photographing Alice Liddell and friends in Christ Church during the heyday of the wet collodion process. By the time of Dodgson's death in 1898, however, not only could a child take a 'snap' with a box camera, but the new photographic medium of cinema was already beginning to astonish audiences across the world and transform the way in which we would come to think of 'reality'.

Acknowledgements

I wish to thank Professor Richard Wayne of Christ Church, his wife Brenda, and my wife Rachel, for kindly reading through the manuscript, and for their constructive suggestions on points of chemistry and presentation. Any mistakes, however, are my own.

Allan Chapman
June 201



Alice Liddell, July 1860, IN 613 (Princeton) The Deanery Garden, Christ Church
Alice seated on a table next to a pot of ferns. Dodgson used part of this image at the end of his manuscript,
Alice's Adventures Under Ground. The story was later expanded into the book,
Alice's Adventures in Wonderland (1865)

EXHIBITION CATALOGUE

Display Cases

1. Lewis Carroll as Photographer

Charles Lutwidge Dodgson (assisted self portrait, 2nd June 1857)

Dodgson took this photograph of himself, with the assistance of Alice's older sister, Lorina, on 2nd June 1857. His diary records: "Bought some Collodion at Telfer's, as Armitstead had failed in bringing any, and spent the morning at the Deanery. ... Harry was away, but the two dear little girls, Ina and Alice, were with me all the morning. To try the lens, I took a picture of myself, for which Ina took off the cap, and of course considered it all her doing!"

Christ Church Library

Reginald Southey (photographed by C.L. Dodgson, c.1860)

Reginald Southey (1835-99) was a graduate of Christ Church, a scientist who later became a physician at St. Bartholomew's Hospital in London and Lecturer at the College of Physicians. He was a gifted amateur photographer, and Dodgson's diary entry for 1st March 1855 records that he went to look at Southey's photographs: "He has done a very successful one of the Broad Walk from his window - about the best amateur attempt that I have seen". On 22nd January 1856, Dodgson wrote to his Uncle Skeffington "to get me a photographic apparatus, as I want some other occupation here, than mere reading and writing". Perhaps Uncle Skeffington, who was used to the older calotype process rather than the newer collodion or wet-plate process, did not trust himself to choose his nephew's equipment, for on 18th March, Dodgson went to London with his friend Reginald Southey, and ordered apparatus from the camera manufacturer T. Ottewill. He recorded that "the camera with lens, etc. will come to just about £15", but this sum would not have included all the other paraphernalia which was a necessary part of the photographer's outfit in the collodion period. The camera arrived at Christ Church on 1st May. By this time Dodgson had made the acquaintance of the new Dean's family, and it was not long before he was taking photographs regularly of Lorina, Alice and Edith Liddell. He also photographed many of his colleagues and friends, and his diaries are full of details of his absorbing interest. This album contains portraits of members of Christ Church Common Room, almost all autographed by the sitter.

Christ Church Library

'A Tea Merchant'

14 July 1873

IN 2155 (Texas)

Tom Quad Rooftop Studio, Christ Church

Xie Kitchin dressed in a genuine Chinese costume sitting on tea-chests portraying a Chinese 'tea merchant'. Dodgson subtitled this as 'on duty'. In a paired image, she sits with hat off in 'off duty' pose.

Xie Kitchin in winter dress,

photographed by Charles Dodgson, 14 May 1873

(numbered 2132)

On 14th May 1873 Dodgson recorded in his diary: "Photo'd Xie in winter dress (Danish), in red petticoat".

Alexandra Kitchin, named after her godmother, Queen Alexandra, was the eldest child of Dr George Kitchin, who was four years older than Dodgson but was also a Christ Church man. While Dodgson was still an undergraduate, Kitchin became a Tutor at Christ Church and a lecturer in mathematics. After a period as Headmaster of Twyford School in Winchester, Kitchin returned to Christ Church to become Junior Censor in 1861, but he had to resign his Studentship in 1863 when he married. However, he retained his lectureship, and Dodgson became a frequent visitor to his Oxford home. Xie Kitchin, born in 1864, became one of his favourite sitters. Henry Holiday, the artist who illustrated *The Hunting of the Snark*, recalled that: "Xie was a perfect sitter, and Dodgson asked me if I knew how to obtain excellence in a photograph. I gave it up. Take a lens and put Xie before it."

Christ Church Library (Recent gift)

Xie Kitchin as Penelope Boothby,
photograph by Charles Dodgson, 1 July 1876 (numbered 2424)

Dodgson, like many other Victorian photographers, enjoyed dressing his sitters in costume. Penelope Boothby was the daughter and only child of the society poet Sir Brooke Boothby (1743-1824). Several portraits were made of her, by Henry Fuseli and Joshua Reynolds, and a sculpture by Thomas Banks. After her untimely death, her grieving father wrote *Sorrows sacred to the memory of Penelope*. Dodgson enlisted the help of Mrs Kitchin in acquiring appropriate costumes for his young sitters. On May 7th 1880, he wrote to her: "Would you add to your kindness, and relieve a poor shy man from another difficulty in getting female attire? i.e. to get a pair of stockings for each acrobatic dress. They will be useful for other dresses as well, as my child sitters often come in white stockings, which are dreadful in a photograph, as white always spreads, and very few young ladies like to be supposed to be suffering from gout."

Christ Church Library (Recent gift)

The Tennysons and Marshalls

29 September 1857

IN 310 (Princeton)

Monk Coniston Park, Ambleside, Lake District

This interior photograph shows Alfred Tennyson (1809-1892) with his son, Hallam Tennyson, on his lap, together with Mr and Mrs James Marshall and their daughter Julia. Tennyson was short-sighted, hence his bewildered stare.

Wilfred Dodgson and his 'Boneshaker'

September 1869

IN 1754 (Texas)

The Chestnuts, Guilford

Dodgson's brother, Wilfred, is seen posing on his 'boneshaker' velocipede (bicycle). This was not an easy machine to ride, and on at least one occasion he recorded a serious fall from which he took some days to recover.

2. Alice Liddell Photographs

Alice Liddell seated beside a potted fern (photographed by Charles Dodgson, July 1860)

Eight copies of this print are recorded, two of which are coloured. It seems to have been one of Dodgson's favourite images of Alice, and a copy (uncoloured) is included in Alice's photographic scrapbook. At the end of the manuscript of Alice's adventures under ground, Dodgson made an ink drawing of Alice as an end-piece. However, he was evidently dissatisfied with it, and so he took a print of this image, trimmed it to an oval to show the head and shoulders only, and pasted it over his drawing. When the manuscript was published in a facsimile edition by Macmillan in 1886, the photograph was omitted, which necessitated rewriting the last line - "happy summer days" - after which Dodgson added "The End" on a slip of paper, which was fastened over the portrait. The reason for not including the photograph is a matter for conjecture. The reading public was, by 1886, thoroughly familiar with Tenniel's Alice, modelled on Mary Hilton Badcock, who bore no resemblance to Alice Liddell. Dodgson may also have felt that the manuscript of Alice's adventures under ground was essentially personal, inspired by and presented to his "ideal child friend", and so the photograph had no place in a published edition.

Private collection

Dean and Mrs. Liddell with their family (photographer unknown, c. 1885)

Alice is on the far right, with her husband, Reginald, standing beside her, with the second of her three sons on her lap and her eldest child at her feet. Alice married Reginald Hargreaves on September 15th 1880, in Westminster Abbey. Their marriage was a happy and stable one, producing three sons, Alan Knyveton (born 1881), Leopold Reginald, always known as Rex (born 1883) and Caryl Liddell (born 1887). When she was asked the source of Caryl's name, Alice would always say that it was a name she had read in a novel, but could it have been an echo of "Carroll"? Alan and Leopold were both killed during the First World War, and Reginald never really recovered from the shock of their loss. When Reginald died in 1926, Alice's brother, Eric, wrote to her: "His was a very happy life till the all-devastating war played havoc with it, and left him as part of the wreckage it had caused". Regi's feelings for Alice are best summed up in a letter he left for her to open after his death: "God bless you and keep you for all your love and care for me. No words of mine can express what you have been to me".

Private collection

Charles Lutwidge Dodgson (assisted self portrait, 1857?)

Private collection

Pictures of Alice as a very young girl.

This photograph album was presented by Alice to her son, Caryl, in 1929.

Private collection

Alice Liddell standing in a corner of the Deanery garden (photographed by Charles Dodgson, summer 1858)

This photograph of Alice, taken when she was just six years old, was probably intended as a companion to the "Beggar Maid" photograph, in which Alice was posed in precisely the same corner of the Deanery garden. The deliberate pairing of these photographs illustrates the divergent paths of poverty and privilege, reflecting the preoccupations of other contemporary photographers, such as Oscar Rejlander, whom Dodgson greatly admired. The river trip, which was to result in arguably the most famous book in English children's literature, was four years in the future, but Charles Dodgson was already familiar with the little girl he would later describe as "his ideal child-friend".

Private collection

Alice Liddell wearing a garland (photographed by Charles Dodgson, May or June 1860)

Private collection

Alice Liddell as 'The Beggar Maid' (photographed by Charles Dodgson, summer 1858)

A presentation print, hand-coloured, possibly by Miss Bond of Southsea. This photograph and its title were probably inspired by the poem "The Beggar Maid", written in 1842 by Alfred, Lord Tennyson. Dodgson first met Tennyson in September 1857, having long admired the poet's work. On 18th September, being near Coniston Water, Dodgson records in his diary: I at last made up my mind to take the liberty of calling. Only Mrs. Tennyson was at home, and I sent in my card, adding (underneath the name) in pencil 'artist of "Agnes Grace" and "Little Red Riding-hood"'. On the strength of this introduction I was most kindly received and spent nearly an hour there. I saw also the two children, Hallan and Lionel, five and three years old, the most beautiful boys of their age I ever saw. I got leave to take portraits of them, in case I take my camera over to Coniston; she even seemed to think it was not hopeless that Tennyson himself might sit, though I said I would not request it, as he must have refused so many that it is unfair to expect it. Dodgson succeeded in photographing Tennyson ten days later, as well as the rest of Tennyson's family, their hosts, and a visitor. Dodgson showed this coloured print of Alice to Tennyson, who declared that it was the most beautiful photograph he had ever seen.

Private collection

Alice Liddell as 'The Beggar Maid' (photographed by Charles Dodgson, 2nd June 1857)

Dodgson took two versions of this photograph. The second, more famous, version was taken in the summer of 1858. This is the only known copy of the earlier version. When he took this photograph of Alice, the river trip, which was to result in arguably the most famous book in English children's literature, was five years in the future, but Charles Dodgson was already familiar with the little girl he would later describe as "his ideal child-friend". Dodgson first met Alice on Friday, April 25th, 1856, when he went with his friend, Reginald Southey, "to the Deanery, to try to take a photograph of the Cathedral". He added in his diary: The three little girls were in the garden most of the time, and we became excellent friends: we tried to group them in the foreground of the picture, but they were not patient sitters. Dodgson was not deterred by this, and over the coming months he took many photographs of the Liddell children. Sadly, his diaries for the period April 1858 to May 1862 are missing, but this photographic scrapbook shows the results of his photography during that time. The album contains forty-eight photographs by Dodgson, and a further ten by unidentified photographers. Many of the photographs were taken in the Deanery garden. Alice later recalled the thrill of watching Dodgson at work: Much more exciting than being photographed was being allowed to go into the dark room, and watch him develop the large glass plates. What could be more thrilling than to see the negative gradually take shape, as he gently rocked it to and fro in the acid bath? Besides, the dark room was so mysterious, and we felt that any adventures might happen then! There were all the joys of preparation, anticipation, and realization, besides the feeling that we were assisting at some secret rite usually reserved for grown-ups! Then there was the additional excitement, after the plates were developed, of seeing what we looked like in a photograph. The original print of this photograph is in the album presented by Alice to her son, Caryl, in 1929.

Private collection

Alice's adventures under ground being a facsimile of the original ms. Book afterwards developed into "Alice's adventures in Wonderland" by Lewis Carroll Macmillan and Co., 1886. Author's presentation binding of white vellum gilt, with a dedication in Dodgson's characteristic violet ink. On December 17th 1886, Dodgson received the first bound copy of Alice's adventures under ground, and he wrote to Macmillan: "I am much pleased with the bound copy of Alice under ground ... I shall want 150 myself, in red cloth (50 will do to begin with) and I should be glad to have, as soon as can conveniently be managed, 3 special copies, one in white vellum, one in dark green morocco, and one in purple morocco." The white vellum copy was intended for Alice. In a long letter written to her in November 1886, Dodgson describes the problems he has encountered during the production of the facsimile: "I have had almost as many Adventures, in getting that unfortunate facsimile finished, Above Ground, as your namesake had Under it!" However, he reports that "all is going smoothly at last: and I quite hope to have the book completed, and to be able to send you a very special copy (bound in white vellum, unless you would prefer some other style of binding) by the end of the month." Alice sold the manuscript at Sotheby's in 1928, together with the first editions of Alice's adventures in Wonderland and Through the looking-glass, and what Alice found there which had been presented to her by the author, and sixteen other editions. However, she retained this copy, perhaps on account of the dedication.

Private collection

Lorina and Alice Liddell in Chinese costume (photographed by Charles Dodgson, July 1860)

The Liddell sisters (Lorina and Alice) are photographed in the Deanery garden, using props brought outside to make an extempore studio. The Victorians were fond of creating tableaux, with a particular theme or title.

3. Photographs by Julia Margaret Cameron

Alice Liddell as Pomona (photographed by Julia Margaret Cameron, probably September 1872)

Julia Margaret Cameron (1815-1879) was born in Calcutta, where her father was in the Bengal civil service. She came to England with her husband and family in 1848, and in 1860 they settled at Freshwater in the Isle of Wight, where they were the neighbours and friends of Lord Tennyson. At the age of fifty, Mrs. Cameron took up photography, and dedicated herself thereafter to the "divine art", winning gold, silver and bronze medals in America, Austria, Germany and England. Her portraits are striking and very expressive, aiming at a real exploration of character. She met the Liddells in 1872, when they rented Tennyson's house on the Isle of Wight, and took several photographs of Alice. Dodgson met Mrs. Cameron in July 1864, and gave his impressions of her in a letter to his sister Louisa: In the evening Mrs. Cameron and I had a mutual exhibition of photographs. Hers are all taken purposely out of focus - some are very picturesque - some merely hideous. However she talks of them all as if they were triumphs in art. She wished she could have had some of my subjects to take out of focus - and I expressed an analogous wish with regard to some of her subjects. Happily, Dodgson's critical and rather contemptuous view of Mrs. Cameron was not shared by all her contemporaries. Sir Henry Taylor, a poet, journalist and dramatist, wrote of her: I have hardly seen any photographs of her's [sic] which are more beautiful in themselves or seem to represent more beauty in the person photographed than 3 or 4 of her photographs of Miss Alice Liddell.

Private collection

King Lear and his three daughters (photographed by Julia Margaret Cameron, probably September 1872)

Mrs. Cameron used her husband in this photograph as King Lear, with Agnes Mangles, Edith Liddell and Alice Liddell as his daughters, Goneril, Regan and Cordelia. The composition may not be as tightly controlled as that of Dodgson, but the photograph is wonderfully expressive, and amply justifies Sir Henry Taylor's opinion of Mrs. Cameron's work.

Private collection

4. Other Victorian Photographers

Lorina Hannah Liddell (nee Reeve), 1826-1910

Lorina Reeve married Henry George Liddell in July 1846. They had ten children, two of whom died in infancy. Mrs Liddell was a forceful character, and is commemorated in this contemporary undergraduate doggerel:

“I am the Dean, this Mrs Liddell.

She plays first, I, second fiddle.

She is the Broad,

I am the High –

We are the University.”

This photograph is by H. Walter Barnett of London.

Christ Church Library

Henry George Liddell (1811-1898)

Henry Liddell, Alice's father, was born in 1811, and came up to Christ Church as an undergraduate in 1830. Here he met Robert Scott, and together the two began work on one of the great achievements of Liddell's life, the Greek-English Lexicon. After many years of arduous labour it was published in the summer of 1843, but the work continued almost to the close of Liddell's life, with the eighth edition being published in 1897. Sometimes his friends, who remembered the artistic promise he had shown in his younger days, were inclined to regret that he had devoted so much of his life of the drudgery of lexicography. John Ruskin, once Liddell's pupil, wrote to him in 1866, expressing sorrow that you kept dictionary making, instead of drawing trees at Madeira in colour. After nine years as Headmaster of Westminster School, Liddell was appointed Dean of Christ Church in 1855, when Alice was three years old. He transformed the college during his thirty-six years as its head. New buildings were erected, and the western end of the cathedral was reconstructed and opened into the Great Quadrangle. There was also a revolution in the government of the college, by which the Students (Fellows) were admitted to the Governing Body to join the Dean and Canons. As chairman of the new Governing Body, Dean Liddell would while away the meetings by doodling on his blotting paper. A surprisingly large corpus of his doodles has survived. These photographs of Dean Liddell in his later years were taken by Hills & Saunders of Oxford.

Private collection

A studio portrait of an unidentified gentleman, taken by Gillman & Co. of Oxford.

Christ Church Library

Photographs by J. Marshall & Son of Alnwick.

Christ Church Library

A print of the St Aldate's front of Christ Church.

Christ Church Library

Edward Bootle-Wilbraham, 1st Earl of Lathom (1837-1898)

Edward Bootle-Wilbraham was educated at Eton and Christ Church. He succeeded his grandfather as Baron Skelmersdale in 1853, and was created Earl of Lathom in 1880. This photograph, probably taken in 1859, is in an album presented to the Library in 1929 by the Ven. R.C.M. Harvey. The album contains 44 photographs of contemporaries of Charles M. Harvey, Archdeacon Harvey's father.

Christ Church Library

Album from a collection on deposit at Christ Church, is open at a page showing a group photograph of undergraduates. The facing page shows two small images of the Christ Church beagle pack, and below that a fascinating image of a waterfall.

Private collection

Framed Photographs
(Loan - Edward Wakeling)

1. Charles Lutwidge Dodgson
July/August 1857
IN 243-292 (NPG)
Croft Rectory, Yorkshire

This is an assisted self-portrait of Charles Lutwidge Dodgson (someone else controlled the lens cap), taken sitting on a window ledge at Croft Rectory, during the summer of 1857.

3. Croft Rectory
July 1856
IN 64 (Princeton)

Croft Rectory, at Croft-on-Tees, Yorkshire, was the Dodgson family home from 1843 until 1868. This photograph was taken during Dodgson's return to the Rectory for the summer holiday in 1856.

5. Wilfred Dodgson and Dido
1857
IN 278 (Princeton)
Croft Rectory Garden

This photograph of Dodgson's brother, Wilfred Longley Dodgson (1838-1914), was taken with Dido, his gun-dog and faithful companion. He became land agent to Lord Boyne's estates in Shropshire.

10. Magdalen Tower, Oxford
June 1861
IN 721 (Princeton)
Christ Church Meadow

The landscape with Magdalen Tower in the distance was photographed from Christ Church Meadow, and includes some children and a woman holding a small child, possibly Mrs Brodie and her daughters who lived nearby.

12. The Broad Walk, Oxford, with figures
June 1857
IN 213 (Princeton)
Christ Church Meadow

This view of the Broad Walk at Christ Church with four undergraduates in the foreground was taken from a window in rooms occupied by Reginald Southey.

14. Reginald Southey and Skeletons
June 1857
IN 219 (Bradford)

Christ Church Anatomical Museum
Reginald Southey (1835-1899), a Christ Church medical graduate, became a physician at St Bartholomew's Hospital and lecturer at the College of Physicians. A life-long friend, he was also Dodgson's photographic teacher and guide.

15. Skeleton of the Sun Fish

June 1857

IN 215 (Princeton)

Christ Church Anatomical Museum

At the suggestion of Dr Henry Acland (1815-1900), professor of medicine, Dodgson and Southey took a number of skeletal photographs, this one showing a sun fish (a sea creature). The skeletons were moved to the new Natural History Museum in 1860, where some can still be seen to this day.

18. Thomas Combe

30 June 1860

IN 606 (Princeton)

The Deanery Garden, Christ Church

Thomas Combe (1797-1872), director of the University Press, was an enthusiastic supporter and collector of the work of the Pre-Raphaelites. The University Press printed the first issue of Alice's Adventures in Wonderland (1865).

26. William Holman Hunt

30 June 1860

IN 576 (Princeton)

The Deanery Garden, Christ Church

William Holman Hunt (1827-1910), the third member of the Pre-Raphaelite Brotherhood, photographed on the occasion of the British Association meeting at Oxford at which Huxley and Wilberforce debated the 'Origin of Species'.

28. Alexander Munro and Wife

7 October 1863

IN 1136 (Texas)

16 Cheyne Walk, Chelsea

The sculptor, Alexander Munro (1825-1871), and his wife Mary née Carruthers (d. 1872), photographed in Rossetti's garden. Dodgson also photographed a number of Munro's sculptures.

31. Michael Faraday

30 June 1860

IN 574 (Princeton)

The Deanery Garden, Christ Church

Michael Faraday (1791-1867), professor of chemistry, was visiting Oxford for the 'Origin of Species' debate at the Museum of Natural History. Dodgson often used a profile view for his sitters—less likely that blinks of the eye would blur the image.

36. Robert Gandell and Florence

10 July 1862

IN 769 (Princeton)

Badcock's Yard, Oxford

Robert Gandell (1818-1887), professor of Arabic, with his Daughter, Florence, in a characteristically warm pose. Dodgson was particularly successful in grouping parents and children.

39. Wilfred Dodgson and his 'Boneshaker'

September 1869

IN 1754 (Texas)

The Chestnuts, Guilford

Dodgson's brother, Wilfred, is seen posing on his 'boneshaker' velocipede (bicycle). This was not an easy machine to ride, and on at least one occasion he recorded a serious fall from which he took some days to recover.

46. The Tennysons and Marshalls

29 September 1857

IN 310 (Princeton)

Monk Coniston Park, Ambleside, Lake District

This interior photograph shows Alfred Tennyson (1809-1892) with his son, Hallam Tennyson, on his lap, together with Mr and Mrs James Marshall and their daughter Julia. Tennyson was short-sighted, hence his bewildered stare.

47. Alice Liddell

Summer 1858

IN 355 (Princeton)

The Deanery Garden, Christ Church

It was for Alice Liddell, daughter of the Dean of Christ Church, that Dodgson wrote the original story Alice's Adventures Under Ground, based on tales told during a boat-trip with two of her sisters, Lorina and Edith, and Robinson Duckworth, on 4 July 1862.

This is one of the most famous images of Alice, taken when she was just six years old. The river trip, which was to result in arguably the most famous book in English children's literature, was four years in the future, but Charles Dodgson was already familiar with the little girl he would later describe as "his ideal child-friend". Dodgson first met Alice on Friday, April 25th, 1856, when he went with his friend, Reginald Southey, "to the Deanery, to try to take a photograph of the Cathedral". He added in his diary: "The three little girls were in the garden most of the time, and we became excellent friends: we tried to group them in the foreground of the picture, but they were not patient sitters." Dodgson was not deterred by this, and over the coming months he took many photographs of the Liddell children. Sadly, his diaries for the period April 1858 to May 1862 are missing, but this photographic scrapbook shows the results of his photography during that time. The album contains forty-eight photographs by Dodgson, and a further ten by unidentified photographers. Many of the photographs were taken in the Deanery garden.

Alice later recalled the thrill of watching Dodgson at work: "Much more exciting than being photographed was being allowed to go into the dark room, and watch him develop the large glass plates. What could be more thrilling than to see the negative gradually take shape, as he gently rocked it to and fro in the acid bath? Besides, the dark room was so mysterious, and we felt that any adventures might happen then! There were all the joys of preparation, anticipation, and realization, besides the feeling that we were assisting at some secret rite usually reserved for grown-ups! Then there was the additional excitement, after the plates were developed, of seeing what we looked like in a photograph."

48. Alice Liddell

July 1860

IN 613 (Princeton)

The Deanery Garden, Christ Church

Alice seated on a table next to a pot of ferns. Dodgson used part of this image at the end of his manuscript, Alice's Adventures Under Ground. The story was later expanded into the book, Alice's Adventures in Wonderland (1865).

49. Alice and Lorina Liddell

May or June 1860

IN 563 (Princeton)

The Deanery Garden, Christ Church

Alice and her sister, Lorina Liddell (1849-1930) enjoying a see-saw in the Deanery Garden, with the third sister, Edith (1854-1876), not far away (see far right of the image).

51. Mary Millais in 'Waking'

21 July 1865

IN 1369 (Texas)

7 Cromwell Place, London

Mary Millais (1860-1944), daughter of John Everett Millais, in a photograph that Dodgson later entitled 'Waking'. Millais commenced a painting of Mary in July 1865 that he called 'Waking' but it is not clear who first had the inspiration.

54. Louisa Barry

Summer 1860

IN 622 (Princeton)

Whitby, Yorkshire

Louisa "Loui" Dorothy Barry (b. 1852), daughter of Rev. John Barry (1819-1856) and his wife, Letitia Anna née Mercer (1824-1911).

55. Kathleen Tidy

1 April 1858

IN 341 (Princeton)

Ripon, Yorkshire

Kathleen Harriet Tidy (1851-1926) on the occasion of her seventh birthday photographed, unconventionally, in a tree at Ripon.

60. Aubrey Taylor

5 September 1862

IN 876 (Princeton)

East Sheen, London

This rather sad looking image shows Aubrey Ashworth Taylor (1845-1876), the eldest son of Henry and Theodosia Taylor, who died as a young man.

63. Alice Constance Westmacott

9 July 1864

IN 1316 (Texas)

Lambeth Palace, London

Alice Constance Westmacott (b. 1859), fifth daughter of the sculptor, James Westmacott, photographed at the home of the Archbishop of Canterbury.

64. Marion and Florence Terry
14 July 1865
IN 1341 (Texas)
Caversham Road, Kentish Town, London
Marion “Polly” (1854-1930) and Florence “Flo” Maude
(1856-1896), two of the younger members of the Terry
clan. Both became successful actresses. Dodgson spent
several days in July 1865 photographing all the Terry family.

68. ‘A Tea Merchant’
14 July 1873
IN 2155 (Texas)
Tom Quad Rooftop Studio, Christ Church
Xie Kitchin dressed in a genuine Chinese costume sitting
on tea-chests portraying a Chinese ‘tea merchant’.
Dodgson subtitled this as ‘on duty’. In a paired image,
she sits with hat off in ‘off duty’ pose.

72. Irene MacDonald on Rugs
July 1863
IN 1008 (Texas)
Elm Lodge, Hampstead
Irene MacDonald, aged six, in relaxed pose lying on the
floor draped with rugs and blankets. Such compositions
were a common feature of Dodgson’s photographs of
children—they were less likely to make any involuntary
movement during exposure of the glass-plate.

Photographic Equipment on Display (*Loan and Captions – Allan Capman*)

Stand cameras. All three of the cameras on display, just like those used by Dodgson himself, would have been used on tripods or stands: hence the generic name, stand camera.

They were all beautifully-made scientific instruments, in wood – usually polished mahogany – brass, leather, and glass. By c. 1880, the glass plates were coming to be made in standardized sizes, known as ‘whole’, ‘half’, and ‘quarter’ plates, a whole plate measuring 6½ by 8½ inches.

These cameras had to be used on firm stands because exposure times were a second or more, which meant that an attempt to hand-hold a camera would inevitably lead to a blurred image.

When the camera had been set up on its stand, the photographer would open the lens at the front to let in the light. He or she would then compose and sharply focus the incoming image on the ground glass screen at the back of the camera. A black sheet was often thrown over both the screen and the photographer’s head, to ensure a dark environment in which to see the image on the screen to best advantage.

The lens at the front of the camera would now be closed, either with a leather cap or a mechanical shutter.

The screen would then be swung back on its hinges, and the wooden dark slide slid into its space. The thin wooden cover of the dark slide would now be pulled back, exposing the light-sensitive plate inside the still-dark camera interior.

The shutter would now be ‘clicked’, or, in earlier cameras, the leather cap removed – after counting one, two, three – and then replaced. The dark slide cover would be slid back into place, engulfing the now-exposed plate in darkness. The dark slide would now be removed from the camera, and taken to the photographer’s darkroom to be developed.

All three cameras on display come from slightly after the ‘Alice’ period of c. 1860, dating rather from the 1880s. Yet all were of a type familiar to the photographers of the day, and Charles Lutwidge Dodgson could have gone into any good camera shop and bought pieces like them.

(1) Stand camera, 1880. Sold by ‘Tudor and Hora’ of London. Notice the mechanical shutter behind the lens at the front, and the ground glass focusing screen at the rear. The back and front knurled adjusting wheels were used to increase or decrease the space between the lens and the glass screen, expanding or contracting the leather ‘bellows’ accordingly. In this way, the camera was focused.

(2) Folded stand camera. To make the large plate cameras portable, they were ingeniously hinged, and their bellows focusing part collapsed to make it fold flat, rendering them easier to carry or stow in luggage. Note that this camera has had its lens removed, so as to demonstrate its shutter mechanism behind. The shutter is of the ‘roller blind’ type, being similar to a spring-coiling window blind. In the blind is a slit, and when the piece of string with the red tassel is pulled, the spring is released. As the slit flashes past the lens, a ray of light is admitted into the camera that will register an image on the light-sensitive photographic plate.

(3) A large ‘whole plate’ camera, c. 1880. Someone in the early twentieth century, however, has modified the front of this camera, so that a larger lens could be fitted.

(4) Two large-aperture camera lenses, c. 1860s, with their leather carrying cases.

(5) Another large lens mounted upon a wooden base.

(6) Three wooden dark slides for camera no. (1) above. Notice how the sliding door at the front is pulled up, to expose a plate inside.

(7) A camera obscura, in mahogany, c. 1820. The front lens and internal mirror are unfortunately missing. When the wooden ‘trap door’ at the back was lifted up, and a piece of glass holding tracing paper was laid across the trap door aperture, one would have seen an image of the scene before the front lens projected onto the tracing paper. An artist could then have carefully traced out the projected image, getting all perspectives exactly right, and transferred the drawing to a large sheet of paper or canvas, to work up into a picture.

(8) Modern ‘direct image’ (no mirror) camera obscura on a tripod. The lens in the front projects an image directly onto a glass-supported piece of tracing paper at the back. Put the piece of black cloth over your head, to create a darkened space, and see the detail of the window, Library interior, and external view, once your eye has become dark-adapted. (Camera made by Allan Chapman, c. 1975.)

One can see how the camera obscura in its various forms provided the rationale behind the photographic camera. All that one needed to do was to find a method whereby the projected image could be caught with light-sensitive chemicals, rather than having to trace out the image. Hence, the photographic plate.

One notices that in the camera obscura, as in the photographic camera, the image is inverted by the laws of optics and lens projection, from right to left.

Camera Obscura | The Lunchtime Portraits

Photograph by David Stumpp, 2015

An Oxfordshire art student at The Bodleian Library, using a camera obscura aimed at The Clarendon Building.

* Rolleiflex 2,8F Planar *

* Red filter *

* Ilford Delta 400 *

* Developed in Kodak TMax *

* Epson V500 scanner * Photoshop CS6 *



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