

# PHOTOGRAPHY AND DISCOVERY



*1. Sunset at the Cape*

**This exhibition is supported by a grant  
from the Robert Mapplethorpe Foundation**

**Cover:** Gustave Le Gray (French, 1820–1884),  
*Brig on the Water* (detail), 1856. Clark Art  
Institute, 1998.32.3

**PHOTOGRAPHY AND DISCOVERY**  
EUGENE V. THAW GALLERY  
FOR WORKS ON PAPER  
NOVEMBER 12, 2016–FEBRUARY 5, 2017

When photographs were first widely produced and distributed during the second half of the nineteenth century, they offered viewers new ways to discover unfamiliar people, distant places, and things previously unknown to them. This exhibition considers these three broad groups of subjects that manifested photographically during the medium's first seventy-five years. During this exciting period, images were captured for many different reasons—from documentation to curiosity—and they came in many forms, including deluxe book illustrations, portable portrait cards, and frame-worthy landscape views, to name a few.

During this era of discovery, photographic processes changed rapidly to meet the growing demand for images of all types. In the mid-nineteenth century, exposure times could be over a minute long, and the need for immobile objects often dictated content. Technology rapidly progressed, however, and by 1900 an image could be instantly fastened to a negative at the click of a button. In our own fast-paced era, these images allow us to look back over one hundred years and discover a time when the world was far less interconnected.

*Photography and Discovery* is the first extensive display to feature the Clark's collection of nineteenth- and early twentieth-century photography. Built over the past eighteen years, the collection of photographs by primarily European, American, and British artists now numbers over a thousand objects and echoes the strengths of the institute's holdings in painting, sculpture, decorative arts, prints, and drawings. Included as well are works on loan from the Troob Family Foundation and selections from the Clark's David A. Hanson Collection of the History of Photomechanical Reproduction.

Charles Thurston Thompson (English,  
c. 1816–1868), *Silver Repousse Mirror  
from Knole House* (detail), 1853. Clark Art  
Institute, 1998.41





(Fig. 1) Linnaeus Tripe  
(English, 1822–1902),  
*Amerapoora, A Street in  
the City* (detail), 1855.  
Clark Art Institute, 2011.1



(Fig. 2) Francis Frith  
(English, 1822–1898),  
*The Pyramids of El-Geezeh*  
(detail), c. 1860. Clark Art  
Institute, 1998.42.3.12



(Fig. 3) Félix Thiollier  
(French, 1842–1914),  
*Universal Exhibition,  
Paris 1900* (detail),  
1900. Clark Art Institute,  
2007.15.11

## PLACES

Photography allowed people to visualize places in ways previously unimaginable. From the pyramids of Egypt to the waterfalls of California, nineteenth-century photographers captured images of sites for many reasons: documentation, science, commerce, politics, and art. For example, Linnaeus Tripe, a captain in the British army, became an official photographer for the British government as it expanded its colonial reach throughout India. In 1855 Tripe accompanied an expedition that sought further annexation under British rule. His commission was to produce photographic surveys of architecture in Burma (modern-day Myanmar). While his role was ostensibly to document, Tripe selected dramatic views and used modern compositional devices in *Amerapoora, A Street in the City* (fig. 1) to create this image of Burmese Buddhist architecture. Tripe often retouched his negatives and printed his photographs with evocatively grainy textures and artfully manipulated skies.

Similarly, Francis Frith strove to document *The Pyramids of El-Geezeh* (fig. 2) for his publication *Egypt, Sinai and Jerusalem: A Series of Twenty Photographic Views* (1860), marketed to armchair travelers back home in England. The impetus to create these works was largely commercial, and Frith composed his imagery in ways that would have simulated traditional conventions in painting.

Frith created his glass plates under trying circumstances, coating them with albumen emulsions in extremely high temperatures and developing them in a makeshift cart. In contrast to Frith's laborious efforts, amateur photographers like Félix Thiollier could take and process photographs with relative ease and speed using the gelatin silver print process. Whereas Frith's and Tripe's subjects had to remain still for their images to be transferred to a photographic negative, the factory smoke billowing in the background and the moving figures in the foreground of Thiollier's *Universal Exhibition, Paris 1900* (fig. 3) could be transferred to a negative in an instant.

## PEOPLE

While today it is commonplace to snap a family photograph, there was a time when it was considered a luxury to have one's picture taken. Offering a less expensive option than a commissioned painting, daguerreotype studios were set up all over Europe and America in the 1850s to create portraits such as *Family, Rochester, New York* (fig. 4). This middle-class family would have likely dressed in their finest clothes for this portrait and had it taken for a special occasion. By 1900 family portraiture merged with artistic photography as practitioners like Gertrude Käsebier used family members to pose for works that were marketed as fine art. In *Hermione Turner and Her Children* (fig. 5), the photographer's daughter and grandchildren are bathed in sunlight that filters through a curtained window behind them. While Käsebier made money photographing wealthy aristocrats, she earned her reputation as a creative photographer with images that bridged portrait and genre (scenes of everyday life).

Photographic portraits could also serve as fiction. For instance, Roger Fenton, having gained acclaim for his documentary images of the Crimean War, returned to London to begin a career as a professional photographer. Capitalizing on a fashion for paintings and prints of the people, customs, and costumes of Egypt, Asia, and the Middle East, Fenton created a series of posed and costumed men and women in his London studio. *Orientalist Study* (fig. 6) is not a portrait of two men from the Middle East, but rather British models wearing costumes in a professional photography studio. The hunger for stereotypical characters fed the career of less well-known French photographers like Henri Béchard. He set up a practice in Cairo, Egypt, with the express purpose of creating images of local people and indigenous architecture to sell to tourists and French artists who sought to incorporate "authentic" elements of Middle Eastern life into their paintings. Béchard's *Water Carrier, Cairo* (fig. 7) depicts an Egyptian man posed carrying a waterskin.



(Fig. 4) Artist Unknown, *Family, Rochester, New York* (detail), 1850s. Clark Art Institute, 2012.3



(Fig. 5) Gertrude Käsebier (American, 1852–1934), *Hermione Turner and Her Children* (detail), c. 1910. Clark Art Institute, 2010.8



(Fig. 6) Roger Fenton (English, 1819–1869), *Orientalist Study* (detail), 1858. Clark Art Institute, 2001.6.2



(Fig. 7) Henri Béchard (French, active in Egypt, late 19th century), *Water Carrier, Cairo* (detail), c. 1875. Clark Art Institute, 2011.5

## THINGS

During the early years of photography, inanimate objects were represented frequently for both aesthetic and logistical purposes. Given the long exposure times needed for salt and albumen prints, subjects needed to be immobile for several minutes. Therefore, still-lives, sculptures, and similarly motionless objects had a certain advantage. William Henry Fox Talbot, one of the inventors of photography, had this to say about the documentary and legal value of his luminous salt print *Articles of China* (fig. 8): “The whole cabinet of a virtuoso and collector of old china might be depicted on paper in little more time than it would take him to make a written inventory describing it. . . . And should a thief afterwards purloin the treasures—if the mute testimony of the picture were to be produced against him in court—it would certainly be evidence of a novel kind.” He then went on to anthropomorphize the photographic process, calling the camera the “eye” and the paper on which the image was printed the “retina.” Thus, photography is at once document, witness, and optical translator.



(Fig. 9) Heinrich Kühn  
(Austrian, born Germany,  
1866–1944), *Still Life with  
Carnations* (detail), 1896.  
Clark Art Institute, 2013.8

Later in the nineteenth century, photographers’ aims and processes changed as did the perceived value of photography as an art form. The Austrian-German photographer Heinrich Kühn sought to push the bounds of photography by manipulating the traditionally sharp-focused negative (associated with professional photography) to create a subjective expression all his own. His *Still Life with Carnations* (fig. 9), although made with a negative, was manipulated on the plate and printed in a lush red-orange, creating what has been termed an Impressionist photograph. Because still-life photographers like Talbot and Kühn could control every aspect of the creative process, light, composition, and placement could be manipulated to best effect.

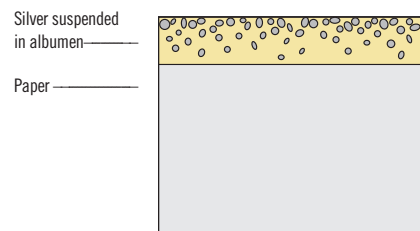
(Fig. 8) William Henry Fox  
Talbot (English, 1800–1877),  
*Articles of China* (detail),  
1844. Lent by the Troob  
Family Foundation



# PHOTOGRAPHIC PROCESSES

## ALBUMEN PRINT

The most common photographic process used during the second half of the nineteenth century, the albumen print is characterized by its glossy surface. In this process, a sheet of paper is coated in a combination of ammonium or sodium chloride and fermented egg white (albumen). After coating, the paper is immersed in a bath of silver nitrate, which makes it sensitive to light. The sheet is then placed in a frame with a glass or paper negative and exposed to light. Following exposure, the paper is washed, the image is fixed with a sodium solution, and finally the print is dried.



Francis Frith (English, 1822–1898), *The Pyramids of El-Geezeh* (detail), c. 1860. Clark Art Institute, 1998.42.3.12

## COLLOTYPE

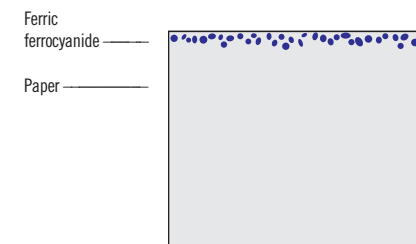
Among the first photomechanical processes to be widely used, the colotype was popular from the 1850s until the 1890s. A colotype is printed from a plate upon which the image from a photographic negative has been transferred. To transfer the image, the plate is first coated with a light-sensitive gelatin layer. Once the gelatin dries, the plate is put in contact with a negative and exposed to light. The gelatin hardens selectively, causing the darker areas to sit higher on the plate and the lighter areas lower. The plate, now holding the transferred image, is inked and printed. The varied surface accepts different degrees of ink, creating tone.



After Lewis Morris Rutherford (American, 1816–1892), *The Moon, First Quarter, Feb. 27, 1871* (detail), from *The Moon: Her Motions, Aspect, Scenery, and Physical Condition*, 1878. Clark Art Institute Library

## CYANOTYPE

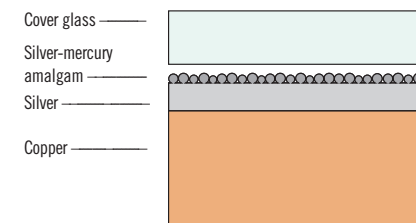
The cyanotype is a camera-less photograph. The photographer first coats paper with a chemical mixture, making it light sensitive. Next, an object (such as a plant leaf) or a negative is placed directly on the paper and exposed to light. The chemical mixtures on the paper create ferric ferrocyanide, from which the cyanotype gets its name. When the print dries, it turns blue.



Anna Atkins (English, 1799–1871), *South America* (detail), from *Cyanotypes of British and Foreign Flowering Plants and Ferns*, c. 1851–54. Clark Art Institute, 2004.2

## DAGUERREOTYPE

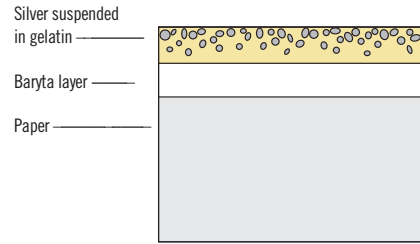
Among the first photographic processes, the daguerreotype was invented by Louis-Jacques-Mandé Daguerre and announced in 1839. The process begins by exposing a polished copper plate to heated vapors of iodine, which leave a thin layer of silver salts on its surface. The plate is then placed in a camera, exposed to light, and treated with fumes of heated mercury. To complete the process, the image is fixed with iodine and washed. Daguerreotypes have a highly detailed, mirror-like surface and often require manipulation by hand to view.



Artist Unknown, *Family, Rochester, New York* (detail), 1850s. Clark Art Institute, 2012.3

## GELATIN SILVER PRINT

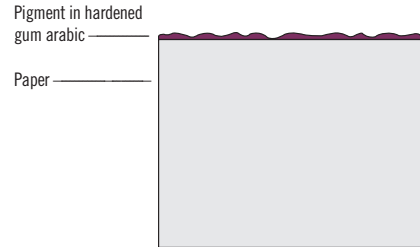
The commercial development of the gelatin silver print in the 1880s revolutionized the medium of photography and ushered in the age of the amateur photographer. The process requires specially prepared paper that has been coated with a solution of silver salts in gelatin. Such paper, which also held a layer of baryta (barium sulphate), could be machine made, omitting the need for a photographer to create their own emulsions to sensitize paper. When exposed to light through a negative, the treated paper produces an image. After exposure the paper is submerged in developing solution and fixed.



Félix Thiollier (French, 1842–1914), *Universal Exhibition, Paris 1900* (detail), 1900. Clark Art Institute, 2007.15.11

## GUM DICHROMATE

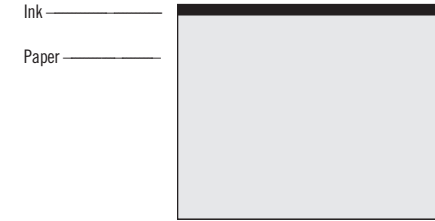
Developed in 1895, gum dichromate prints are made by applying dichromate salts to a regular sheet of drawing paper. The paper is then coated with a mixture of gum arabic and pigment and contact printed with a negative. Once the sheet of paper is washed, the gum softens, allowing the artist to manipulate the surface of the print before it dries. This technology produced images closer in appearance to traditional graphic techniques than to conventional photographs, and allowed artists to manipulate tones and details, producing atmospheric effects.



Heinrich Kühn (Austrian, born Germany, 1866–1944), *Still Life with Carnations* (detail), 1896. Clark Art Institute, 2013.8

## HALFTONE

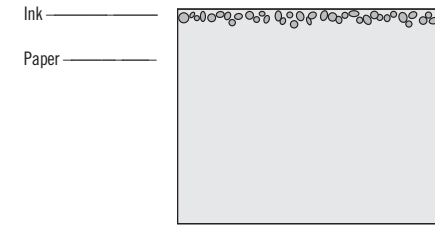
Halftone is a photomechanical printing technique whereby a photographic image is transferred onto a metal plate as a pattern of dots of different sizes. The plate is then sensitized with a coating, and relief printed. The dots that make up a halftone visually simulate the continuous tonality of a photograph. Halftone images have been most commonly produced to illustrate books or newspapers.



William Notman and Son (American, 19th century), *Buffalo Bill Cody* (detail), 1885. Clark Art Institute Library

## PAPER NEGATIVE

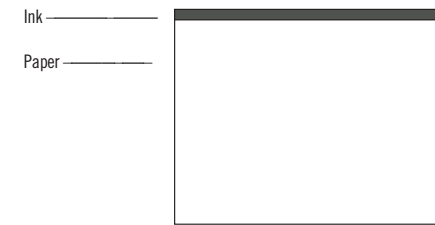
To create a paper negative that can be printed, a sheet of ordinary writing paper is coated with silver nitrate and then treated with a series of chemical solutions to make it photosensitive. The sheet is then exposed, washed, and developed, and the image fixed. Photographers often waxed their negatives to speed up the exposure process and increase transparency.



John Murray (Scottish, 1809–1898; active in India, 1833–1871), *Taj Mahal from the East with Dr. John Murray Seated in the Foreground* (detail), c. 1858–62. Clark Art Institute, 1999.35.1

## PHOTOGRAVURE

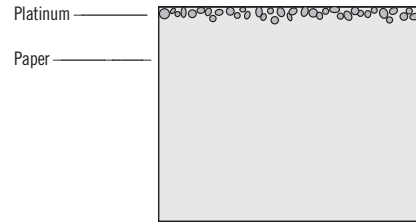
Between the 1880s and 1910s, photogravure was used both as an artistic process by printmakers and as an illustrative process for books. Over the past two decades, photogravure has been revived as a creative process. A photogravure is made by transferring a photographic image onto a metal plate (usually copper). The plate is first coated with a light-sensitive gelatin tissue paper that has previously been exposed to a photographic positive, and etched with acid.



Photogravure and Color Company, New York, *The Great Nebula in Andromeda* (detail), from *Hellogravure Plates in Photographs of Nebulae and Clusters Made with the Crossley Reflector*, c. 1900. Clark Art Institute Library

## PLATINUM PRINT

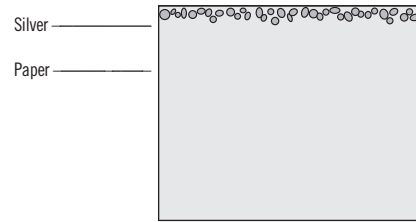
Platinum prints are known for their rich tonal range. A sheet of paper is sensitized with a solution of iron and platinum salts, exposed through a negative, and then chemically developed. The image is made up of black or brown platinum metal, which becomes embedded in the uppermost paper fibers, resulting in a velvety, matte appearance.



Gertrude Käsebier (American, 1852–1934), *Hermione Turner and Her Children* (detail), c. 1910. Clark Art Institute, 2010.8

## SALT PRINT

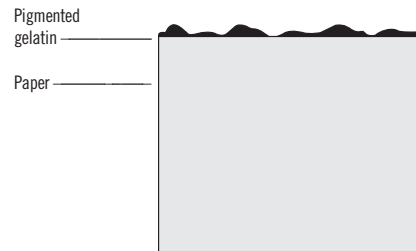
To create a salt print, a sheet of paper is first coated with salt and silver nitrate, making it photosensitive. The sheet is then placed in contact with a negative and exposed to light. Finally, the sheet is washed, fixed, and dried. Salt prints are characterized by their hazy, soft tonality.



Roger Fenton (English, 1819–1869), *Harbor of Balaklava, The Cattle Pier* (detail), 1855. Clark Art Institute, 2000.7.3

## WOODBURYTYPE

A woodburytype is a photomechanical process that creates a continuous tone similar to halftone or photogravure (see above). First, a gelatin film is exposed to a photographic negative. Once exposed, the gelatin hardens in relation to the amount of light that passes through the negative. The gelatin is developed in water and pressed onto a metal plate so that it can be printed.



After Lewis Morris Rutherford (American, 1816–1892), *Photograph of the Moon*, from *The Chemistry of Light and Photography* (detail), 1875. Clark Art Institute Library

Diagrams by Martha Vaughan, © 2009 Board of Trustees, National Gallery of Art, Washington, from Sarah Kennel et al., *In the Darkroom: An Illustrated Guide to Photographic Processes before the Digital Age* (National Gallery of Art and Thames & Hudson, 2009)

## THE CLARK ART INSTITUTE

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Carleton E. Watkins (American, 1829–1916), *The Bridal Veil, 900 ft. Yosemite* (detail), 1865–66. Clark Art Institute, 1998.42.7



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