

The Subtle Beauty of Platinum and Palladium Photographs

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Revered for its permanence and subtle beauty, the platinum photograph played an important role in establishing photography as a fine art during the late nineteenth and early twentieth centuries. Composed of platinum metal embedded in the uppermost fibers of the print's paper, platinum photographs are characterized by luminous surfaces that vary from a velvety matte to a lustrous sheen. These works are also prized for their extraordinary tonal range—from creamy shades of white to delicate gray midtones and warm, sepia browns to the deepest blacks (fig. 1). From this description, it should come as no surprise that the meaning and appreciation of a platinum photograph is strongly shaped by its production. The physical qualities of these prints, with their breadth of tonalities, textures, and surfaces, were developed as part of an intense technical exploration of the process that sought to unlock its aesthetic potential. More than simply beautiful images, platinum prints are material objects whose distinctive attributes reveal the complex and malleable nature of photography as it is intertwined with both art and science.

The material complexity and variability of platinum photographs have been overlooked, in part, because they often appear less obviously manipulated or synthetic than prints made by other photographic processes, such as gum dichromate.¹ In recent decades, a simple set of generally accepted descriptions came to characterize the structure and appearance of platinum photographs. Based on close visual inspection, but limited scientific analysis, curators, historians, and conservators have conducted their work with relative confidence. However, as *Platinum and Palladium Photographs: Technical History, Connoisseurship, and Preservation* reveals, a deeper, more rigorous exploration of the material nature of platinum prints was needed as new and perplexing questions about the process began to emerge. Thus this compendium is a critical addition to photograph conservation and art-history scholarship, providing a wealth of information about standard production practices, how individual photographers deviated from them, and how the prints may have changed over time. With its in-depth essays, technical highlights, and detailed charts, *Platinum and Palladium Photographs* presents groundbreaking scientific research and analysis that take into account reviews of technique, production, and aesthetics as discussed by photographers and recounted in the contemporaneous photographic press. As important as it is to understand how the instruments of production—cameras and lenses, negatives, printing papers, and chemicals—influenced the appearance of a print, many of the authors in this volume advise that the condition of a work today may be the result of a number of physical changes over time. Every photograph has its own life, its own history. With these challenges in mind, the authors carefully examine how these extraordinary prints were produced, shedding new light on one of the most beloved and beautiful photographic processes.

To study platinum printing as a material practice requires an appreciation of the relationship between physical production and meaning.² The full richness and dynamism of a platinum photograph depends on how the subject is materially expressed. Technically sophisticated photographers would often previsualize an image in terms of the process in which it would be printed. Sometimes they would shoot multiple negatives of one scene in anticipation of producing prints in different processes, or a single negative could be altered to take full advantage of a given printing medium, allowing

Figure 1. Gertrude Käsebier, Alfred Stieglitz, 1902. Platinum print, 29.8 × 19.7 cm. National Gallery of Art, R. K. Mellon Family Foundation, Diana and Mallory Walker Fund, and Horace W. Goldsmith Foundation through Robert and Joyce Menschel, 2005.123.1.



Figure 2. Henry Peach Robinson, *Gossip on the Beach*, c. 1885. Platinum print, 35 × 62.8 cm. National Gallery of Art, Horace W. Goldsmith Foundation through Robert and Joyce Menschel, 2006.44.1.

them to explore the possibilities that the negative might yield.³ Photographers also worked with a vast range of paper types and any number of chemical additives to the sensitizer and developer that would influence the resulting print. Additionally, the temperature of the developer and the humidity at which a print was exposed would also affect the print's appearance, as would the application of a coating or applied media, such as watercolor. In fact, the incredible range of experimentation at play in the making of platinum prints was integral to how the photographers realized the artistic potential of their work. The following examination of a small selection of photographs demonstrates the passion for process shared by many photographers working with platinum from around 1880 to 1920.

Pictorialism and the Platinum Print

The evocative visual and tactile qualities of the platinum process made it a preferred choice among the Pictorialists, an international group of turn-of-the-century photographers who championed the medium as a means for creative expression. Pictorialism emerged during a contentious moment in photography's history when scientific, documentary, commercial, and artistic endeavors clashed. Calling themselves amateurs so as not to be seen as emulating the commercial approach of professionals, Pictorialists were also quick to distinguish themselves from the growing number of novice "Kodakers" and their snapshots.⁴ With a desire to transform observable reality into a "picture" or space that could be both seen and felt, Pictorialists wanted their photographs to be considered works of art in their own right. They believed that making a high-quality photographic print required great skill and was comparable, according to the photograph historian Peter C. Bunnell, to the "creative and tangible articulation of materials in any medium."⁵ Their success, therefore,

depended on overcoming the common viewpoint that ascribed "to accident," as noted by the critic Sadakichi Hartmann (1867–1944),⁶ "anything artistic that the

camera might produce."⁷ The Pictorialists' sense of artistic identity was grounded in process, from platinum and glycerine to bromoil and gum, among others. In the wake of an etching revival influenced by artists such as James Abbott McNeill Whistler (1834–1903), and at the time when movements such as Impressionism, Aestheticism, and Symbolism were defining a new, modern art world, Pictorialists' prints intentionally shared many aesthetic characteristics with these contemporary paintings, drawings, and etchings. Platinum's ability to create soft expressive delineations, evanescent atmospheric effects, and nuanced tones, made the process an important interpretive tool for photographers during this period who consciously sought to make art.

It is important to note that platinum printing was used by a variety of practitioners for different purposes and different effects. For example, while Pictorialists were making artworks in platinum, documentary-minded photographers working for cultural survey projects used the same process to record ancient architecture and local folk customs. As the historian Elizabeth Edwards has argued, this evidentiary use of photography was part of a larger mapping and preservationist movement that gained momentum during the last quarter of the nineteenth century⁸—a method that also included the much more problematic visual documentation of colonized people, both of their bodies and of their traditions.⁹ The accuracy and presumed permanence of platinum prints were championed for such endeavors because the survey photographers were concerned with mitigating historical loss and creating "an externalised 'collective memory' bank through photography which would not only define the past in the present but also project a strong sense of identity into the future."¹⁰

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Positioned against such practices, Pictorialists valued individual creativity that transcended the mechanical nature of photography. Their aesthetic approaches ran counter to those of unmediated inscription, preservation, and archiving. Thus as photography moved from being understood as simply an aid to documentation and art reproduction to its own medium of expression, it was often at the expense of many of the medium's own inherent and highly valued technical qualities, such as its capacity to render sharp, clear details and the potential to produce an aura of objectivity. There was, however, much slippage between the aesthetic and the historical aspirations of the photographers working at this time. For photographic artists and documentary practitioners the value of a photograph was defined by the way it visualized and framed its subject as well as its particular ability to vividly arrest and encapsulate the vitality of the past for future generations to experience. For both, the choice of subjects and how they were pictorially depicted was essential.

Faithfulness to visual perception and experience was central to one of the earliest proponents of art photography, Peter Henry Emerson (1856–1936). An avid writer and theorist, Emerson was one of the first photographers to embrace the platinum print for its ability to capture fine detail and subtle tonal gradations. He thought the “naturalistic photograph” should aim for fidelity to the perceptual experience of ordinary life. His belief that photographs should be truthful in sentiment, and not highly manipulated, was a response to the earliest commentary about pictorial photography, that of Henry Peach Robinson (1830–1901), who, in his *Pictorial Effect in Photography* (1869), defined beautiful, artistic photographs as those purposefully constructed in much the same fashion as academic painting (fig. 2).¹¹ The photographer,

according to Robinson, needed to study the art of the past in order to understand its aesthetic principles.¹² While Emerson agreed with Robinson that artistic photographs were not taken simply and spontaneously from nature, Emerson's claim that photography was a pictorial art rested on his theory of naturalism, which called for “differential focusing” to provide effects similar to human vision.¹³ Through use of a long-focus lens, carefully controlled diaphragm, and camera-back swings and tilts, the main subject could be made relatively sharp while other areas were rendered softer.

Emerson's only published book that included actual platinum photographs, *Life and Landscape on the Norfolk Broads*, was produced in collaboration with the artist T. F. Goodall in 1886.¹⁴ Printed in a limited run of two hundred copies, this book reveals Emerson's fascination with the region's traditional way of life and his concern that it was threatened by industrialization and tourism. Emerson was an active member of the Folklore Society and saw himself as an artist and an ethnographer. His study of the Broads was therefore both personal and anthropological. One of the forty plates featured in the book, *A Rushy Shore* poetically visualizes Emerson's impression of the marshy coastal region northeast of London (fig. 3). Placing the viewer among the tall rushes, which appear as a mesmerizing abstract pattern of lines, Emerson establishes an intimate view that carries the aesthetic and moral weight of works by French Realist painters such as Jean-François Millet (1814–1875). With platinum's ability to create subtle gradation of tones, the softly rendered villagers at work amid their haystacks and cottages—as well as a windmill off in the distance—are all harmoniously integrated into the landscape.



Figure 3. Peter Henry Emerson, *A Rushy Shore*, 1886. Platinum print, 19.7 × 28.7 cm. Plate XXXV of P. H. Emerson and T. F. Goodall, *Life and Landscape on the Norfolk Broads* (London: Sampson Low, Marston, Searle and Rivington, 1886). National Gallery of Art, Gift of Harvey S. Shipley Miller and J. Randall Plummer, in Honor of the 50th Anniversary of the National Gallery of Art, 1995.63.1.ii.



Figure 4. Alfred Stieglitz, *The Last Joke, Bellagio*, 1887. Platinum print, 11.7 × 14.7 cm. National Gallery of Art, Alfred Stieglitz Collection, 1949.3.30.

Platinum photography was also central to the acclaimed photographer Alfred Stieglitz (1864–1946), particularly from the late 1880s to the 1920s. Stieglitz made a number of platinum prints while traveling through Italy as a student in the summer of 1887, twelve of which he submitted to a photographic competition judged by none other than Peter Henry Emerson. His work, *The Last Joke, Bellagio* (fig. 4), was awarded first prize by Emerson, who was taken by Stieglitz’s ability to fuse everyday scenes with atmosphere and sentiment, an effect enhanced by his use of the platinum process. Influenced by Emerson’s understanding of photography as an independent art form, Stieglitz became the driving force behind the development of art photography at the turn of the century, founding the Photo-Secession group in 1902 “to advance photography as applied to pictorial expression.”¹⁵

Artful Experimentation

Stieglitz was a great champion of the platinum print, writing numerous articles that extolled their beauty and versatility. He continually tested the platinum process for new and unusual effects; by manipulating variables such as temperature and humidity levels during the printing process he could achieve a wide range of color gradations and image qualities.¹⁶ Very early on he also chemically altered some of his platinum prints by adding mercury to



Figure 5. Alfred Stieglitz, *Self-Portrait, Freienwalde a.O.*, 1886. Platinum print, 10.7 × 7.7 cm. National Gallery of Art, Alfred Stieglitz Collection, 1949.3.9.

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Figure 6. Alfred Stieglitz, *Self-Portrait, Cortina*, 1890. Platinum print with mercury, printed 1895/96, 13.3 × 17.9 cm. National Gallery of Art, Alfred Stieglitz Collection, 1949.3.63.



Figure 7. Gertrude Käsebier, *The Dancing Lesson*, c. 1905. Platinum print with mercury, 19.5 × 11.3 cm. National Gallery of Art, Patrons' Permanent Fund, 2008.65.12.

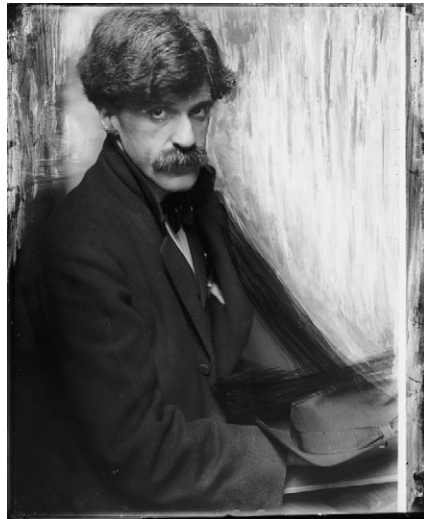
the developer, which shifts the blacks of the print to warmer sepia. In comparison with the neutral tonality of the self-portrait Stieglitz took while at work with his camera in Germany (fig. 5), the warmth of *Self-Portrait, Cortina* may be an example of a conscious decision by Stieglitz to add mercury to his developer to enrich the casual yet charged pose (fig. 6).¹⁷ Along with the photographer Joseph T. Keiley (1869–1914), Stieglitz conducted a series of experiments using locally applied developers with and without mercury to create doubled-toned prints as a way of expanding platinum's aesthetic potential. Keiley relayed in the April 1900 edition of *Camera Notes* that mercury “rarely acts in the same way twice, so that one must use it with great caution.”¹⁸

Focusing on the handcrafted potential of photography in order to promote a sense of originality in the medium, many Pictorialists emphasized the malleability of technique.¹⁹ Hailed by Stieglitz in 1899 as “the leading portrait photographer in this country,”²⁰ Gertrude Käsebier (1852–1934) was a tenacious experimenter with process. She began to photograph later in life after raising a family and studying painting at the Pratt Institute in New York. Featured in the 1903 inaugural issue of Stieglitz's seminal journal *Camera Work*, she quickly became a leader of the Pictorialist movement, speaking about the profession and working with a wide variety of subject matter, including intimate interior scenes such as the *The Dancing Lesson* (fig. 7). As the blurred movement of the girls' skirts imparts a striking immediacy, the playful atmosphere recalls the sentiment Stieglitz achieved in *The Last Joke, Bellagio*. A much-sought-after portrait photographer, Käsebier

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8a



8c



9



8b



8d



9a

Figure 8. Gertrude Käsebier, *Alfred Stieglitz*, 1902. Gelatin dry-plate negative, 30.5 × 25.3 cm. Library of Congress Prints and Photographs Division, Gift of Mina Turner, LC-K21-56 [P&P].

8a. Transmitted light.

8b. Reflected light, showing applied media on glass side of plate.

8c. Digitally inverted image of the negative, with color information removed to allow comparison with prints.

8d. Detail of 8c.

Figure 9. Gertrude Käsebier, *Portrait of Alfred Stieglitz*, 1902. Platinum print with mercury, 34.3 × 26 cm. The Museum of Modern Art, Gift of Miss Mina Turner, 1223.1969.

9a. Detail.

had opened her own portrait studio in New York by 1897. But true to her Pictorialist roots, she continued to create one-of-a-kind prints, eschewing the common commercial practice of printing identical multiples of the same negative only for profit.

An examination of several portraits by Käsebier of Alfred Stieglitz illustrates the ease at which she melds her technical skill with artistic creativity. Käsebier is known to have made copy negatives from her own manipulated photographic prints, and she would reprint a negative in

any number of variations to achieve singular effects. A gelatin glass-plate negative in the collection of the Library of Congress, for example, was made by rephotographing a positive that she had embellished with applied media (fig. 8a). She then added retouching media (orange- and violet-colored pigments) to the glass side of the plate to achieve a painterly background in the print and to enhance certain aspects of the composition (fig. 8b). Because the retouching media was applied to the glass and not the emulsion side of the plate, it would have been easy to remove and



10



11



12



10a



11a



12a

Figure 10. Gertrude Käsebier, *Alfred Stieglitz*, 1902. Platinum print with mercury, printed 1906, 30.2 × 23.4 cm. The Art Institute of Chicago, Alfred Stieglitz Collection, 1949.862, www.artic.edu.

10a. Detail.

Figure 11. Gertrude Käsebier, *Alfred Stieglitz*, 1902. Platinum print, 29.8 × 19.7 cm. National Gallery of Art, R. K. Mellon Family Foundation, Diana and Mallory Walker Fund, and Horace W. Goldsmith Foundation through Robert and Joyce Menschel, 2005.123.1.

11a. Detail.

Figure 12. Gertrude Käsebier, *Alfred Stieglitz*, 1901–2. Gum bichromate print, 28.9 × 23.5 cm. The J. Paul Getty Museum, Los Angeles, 84.XP.208.28.

12a. Detail.

replace. In fact, the retouching on the glass-plate negative as it exists now does not appear to correspond exactly to any known platinum interpretations of the original camera negative. This suggests that Käsebier made changes to her negatives between printings and that she produced several variant copy negatives (figs. 8c, 8d, 9, 10).²¹ However, it is conceivable that she used this negative to produce her stunning platinum portrait of Stieglitz in the collection of the National Gallery of Art, Washington (fig. 11). Käsebier enhanced this print's appearance by selectively brushing

the developing solution onto the sensitized and exposed thin Japanese paper.²² With a strikingly dark and emotive atmosphere, this richly textured photograph resembles a beautifully handworked watercolor. In yet another example, a variant printed from what seems to be the same negative but in gum dichromate, she achieves a warmer and even more sketch-like appearance (fig. 12). These examples underscore the deep level of engagement with photographic process and chemistry that was at the center of her practice.

21 Andrea Nelson, "The Subtle Beauty of Platinum and Palladium Photographs," in *Platinum and Palladium Photographs: Technical History, Connoisseurship, and Preservation*, ed. Constance McCabe (Washington, D.C.: American Institute for Conservation of Historic and Artistic Works, 2017), 14–27.



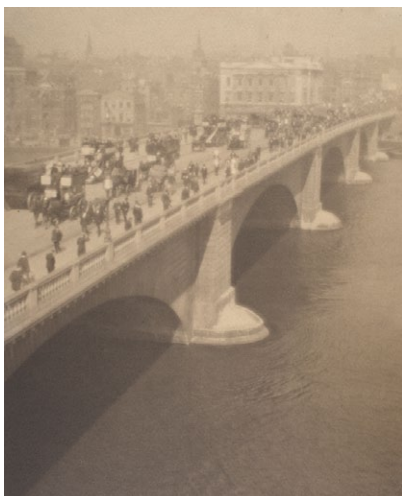
Käsebier's exceptional works emphasize how the paper support contributed greatly to the overall appearance of the platinum print, and many photographers experimented with a range of hand- and machine-made papers that varied in texture and color. In his portrait of fellow photographer Clarence H. White (1871–1925), Alvin Langdon Coburn (1882–1966) presents his subject holding a canister of platinum paper in much the same manner as a painter would hold a palette (fig. 13). While viewers today may not recognize the object in his hand, most photographers of his era would have been very familiar with the metal container required to keep the light-sensitive platinum paper dark and dry.²³ Influenced

Figure 13. Alvin Langdon Coburn, *Clarence H. White*, c. 1905. Platinum print, 24.2 × 19.4 cm. National Gallery of Art, Patrons' Permanent Fund, 2008.65.2. See also fig. 1 in Sarah S. Wagner, "Manufactured Platinum and *Faux Platinum* Papers, 1880s–1920s," in this volume.

by his mother, a skilled amateur photographer, Coburn began exhibiting his photographs at the age of fifteen. His enthusiasm prompted his distant cousin, the photographer F. Holland Day (1864–1933), to take him to England to study photographic techniques. Coburn's later training with the artist and influential educator Arthur Wesley Dow (1857–1922) further expanded his understanding of the formal principles of Japanese art and inspired his experimentation with the newly developed telephoto lens, which simplified form and compressed space.²⁴ In his 1904 *London Bridge* (fig. 14), Coburn chose to print his negative on a rough, long-fibered paper, whose texture adds energy and depth to the dynamic asymmetrical composition. The print's rich, warm tone and luminous atmosphere are further enhanced by a lustrous surface that may indicate that Coburn applied a thin coating.²⁵ Other photographers, such as Paul Strand (1890–1976), printed on Japine Platinotype paper, a manufactured paper with a chemically altered surface that resembles parchment. First introduced by William Willis Jr.'s (1841–1923) Platinotype Company in 1906, Japine provided deep blacks and an amazingly lustrous surface sheen that Strand found ideal for his modernist works composed of striking shadows and geometric forms.²⁶

Perceptive Portraiture

The lush appearance and soft atmospheric effects of platinum prints seem to imbue their subjects with an expressive power, creating an ethereal air that evokes the inner mood of their sitters. From intimate works featuring



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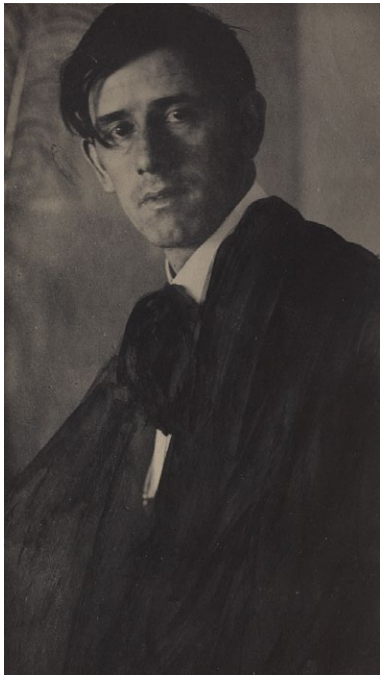


14a

Figure 14. Alvin Langdon Coburn, *London Bridge*, 1904. Platinum print with mercury, 27.94 × 22.54 cm. National Gallery of Art, Patrons' Permanent Fund, 2008.65.1.

14a. Detail, in raking light, showing the textured surface.

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15



15a

Figure 15. Clarence H. White, *Self-Portrait*, c. 1900. Platinum print, 20.3 × 11.5 cm. National Gallery of Art, Patrons' Permanent Fund, 2008.65.26.

15a. Detail, showing brushwork due to local application of developer.

family and friends to symbolic representations, photographers exploited the platinum process to make portraits that were sensitive and insightful. In his c. 1900 *Self-Portrait* (fig. 15), White most likely applied the developing solution selectively with a brush to his dry print in order to achieve the handworked appearance and deep blacks seen in the folds of his cloak. Edward Steichen (1879–1973), an important link between European and American artistic circles during the first decade of the twentieth century, re-sensitized some of his platinum photographs with pigmented gum dichromate to augment the tone and density of his prints and create a painterly effect. A member of the Photo-Secession, Steichen encouraged the group's founder, Alfred Stieglitz, to open a gallery in New York to promote the group's work. The Little Galleries of the Photo-Secession (later known as "291," a reference to its address at 291 Fifth Avenue) opened in 1905. Soon the gallery's scope extended beyond photography to include other currents in modern art, such as the exhibition of Auguste Rodin's (1840–1917) watercolors and drawings that Steichen organized in 1908. In Steichen's outstanding portrait of the artist (fig. 16), the photographer positioned Rodin in a contemplative pose reminiscent of the sculptor's most-recognized work, *The Thinker* (1880). The soft focus, saturated hues, and surface sheen of this gum over platinum portrait creates an evocative, multilayered work.²⁷

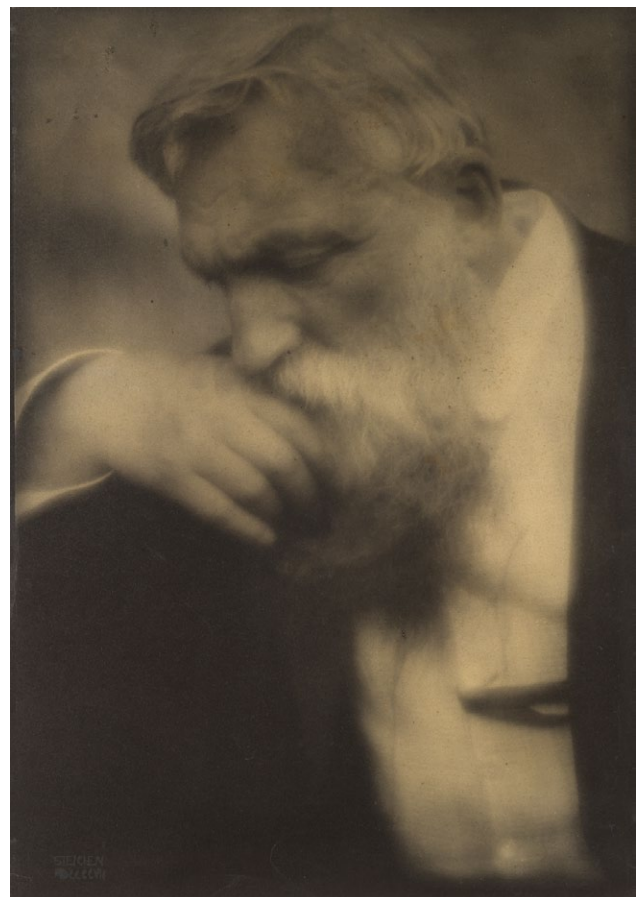


Figure 16. Edward Steichen, *Rodin*, 1907. Gum dichromate over platinum print, 37.94 × 26.67 cm. National Gallery of Art, Pepita Milmore Memorial Fund, 2009.66.2.

23 Andrea Nelson, "The Subtle Beauty of Platinum and Palladium Photographs," in *Platinum and Palladium Photographs: Technical History, Connoisseurship, and Preservation*, ed. Constance McCabe (Washington, D.C.: American Institute for Conservation of Historic and Artistic Works, 2017), 14–27.



Figure 17. Frederick H. Evans, *Kelmscott Manor: In the Attics*, 1896. Platinum print, 15.7 × 20.4 cm. Library of Congress, Prints and Photographs Division, PH - Evans (E), no. 24 (A size) [P&P].

In the late nineteenth century, art photographers responded to snapshot photography in much the same way as the designers of the Arts and Crafts movement responded to industrialized manufacturing—by placing emphasis on the role of the artist’s individuality and creativity in handcrafted production. Among the most convincing demonstrations that photography is much more than an automatic product of a machine is the work of Frederick H. Evans (1853–1943). Known as the master of the unmanipulated platinum print, Evans believed that a perfect photograph was one that “gives its beholder the same order of joy that the original would.”²⁸ As his friend, the writer and critic George Bernard Shaw (1856–1950), recounted in an essay published in *Camera Work*, “[Evans’s] decisive gift is, of course, the gift of seeing: . . . he relies on pure photography, not as a doctrine, but as an artist working on that extreme margin of photographic subtlety.”²⁹ The luminous *Kelmscott Manor:*

In the Attics is a breathtaking example of how Evans could make light, rather than architecture, his subject (fig. 17). Made at Kelmscott Manor, the country home of the designer, socialist reformer, and founder of the Arts and Crafts movement, William Morris (1834–1896), *In the Attics* is one in a series of carefully composed views that explore its architectural facets and atmospheric conditions. Invited by Morris to photograph the estate in 1896, Evans quickly returned after Morris’s death later that same year to finish what, in essence, became a portrait of Morris.³⁰ Often featuring personally significant and intimate spaces, Evans’s photographs reveal how he used the aesthetic qualities of the platinum process to create a reverential and timeless mood in his work. In this example, the rough-hewn beams that structure the attic evoke Morris’s central tenet of moral uplift that could be found in handcrafted work made from honest materials. In turn, critical to Evans’s practice was the creation of the perfect negative

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that captured all the subtle gradations of light, which when printed in platinum possessed a uniquely tactile quality. Evans further explained his approach as follows: “Realism in the sense of true atmosphere, a feeling of space, truth of lighting, solidity and perfection of perspective (in the eye’s habit of seeing it), has been my ambitious aim.”³¹ This powerful sense of harmony and spirituality would similarly come to characterize his platinum photographs of cathedrals.³²

As World War I approached, the price of platinum began to increase, and at the war’s onset platinum metal was needed for military purposes, further raising its price and severely limiting its use for commercial applications. This situation spurred the development of new photographic products that relied on silver and palladium metals, which were more readily available and less expensive, including the Platinotype Company’s Satista and Palladiotype.³³ Introduced in 1914, Satista paper combined a relatively small amount of platinum with silver to provide a more economical alternative to pure platinum printing while still promising to yield similar visual effects and permanency.³⁴ However, the process of printing Satista papers was more complicated, as photographers needed to develop the print and then fix for both the silver and the platinum elements. Palladiotype, which was available by 1916, substituted platinum salts with palladium salts in order to sensitize the paper. Similar to platinum, palladium photographs have a wide tonal range with hues that can be manipulated with changes in temperature and humidity.

For photographers such as Stieglitz, new printing papers and production processes offered another avenue of experimentation, a striking example of which is his Satista portrait of Hodge Kirnon (1891–1962), the elevator operator for 291 from 1912 to 1917 (fig. 18). Kirnon, who would later become a figure in the Harlem Renaissance and editor of *The Promoter*—a journal that sought to elevate racial and class consciousness—is photographed holding a copy of *Camera Work*. Aided by the distinctive attributes of the process, Stieglitz achieved a quiet, introspective mood that conveys the thoughtfulness and the sensitivity of his sitter. The photographer Edith R. Wilson (1864–1924) also experimented with palladium paper, as exemplified by a fascinating family portrait she made during a summer course offered by the Clarence H. White School of Photography (fig. 19). Intended to mimic the look of platinum prints, Palladiotype paper came in various paper colors, from white to cream, in tonal values from sepia to warm black and black, and in surface sheens

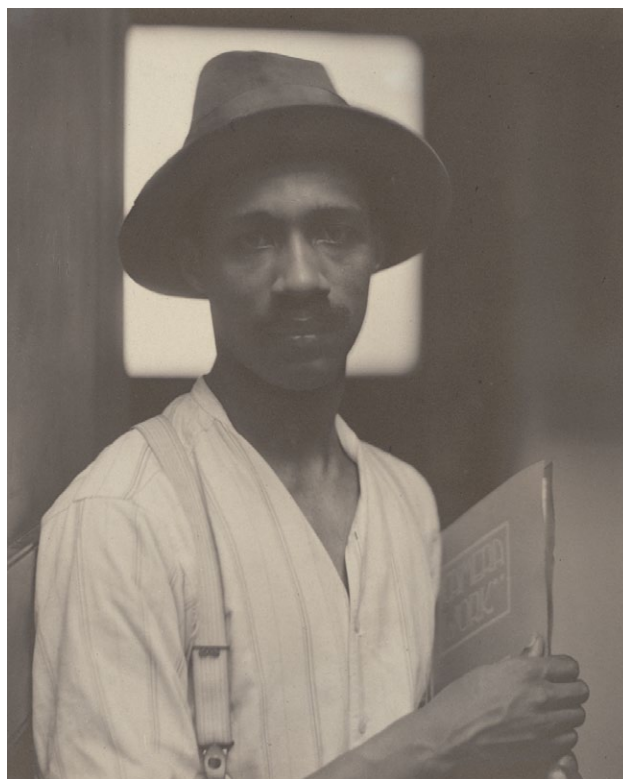


Figure 18. Alfred Stieglitz, *Hodge Kirnon*, 1917. Satista print, 23.5 × 19 cm. National Gallery of Art, Alfred Stieglitz Collection, 1949.3.408. See also plate 4 on page 32, in this volume.

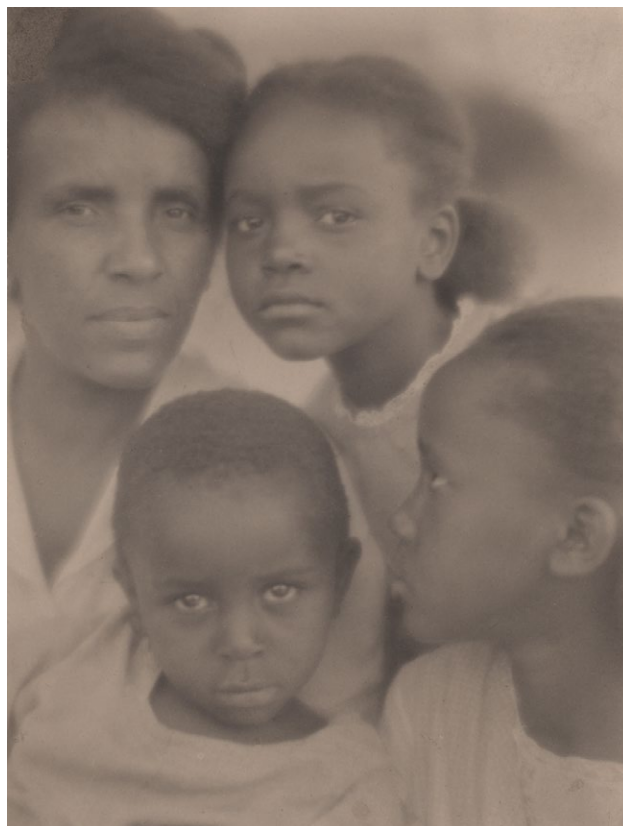


Figure 19. Edith R. Wilson, *Portrait of a Family*, 1922. Palladium print, 22 × 15.3 cm. National Gallery of Art, R. K. Mellon Family Foundation, 2013.178.1.

from matte to semiglossy.³⁵ The visual and tactile qualities of platinum (and later Satista and palladium) prints create a vitality that is nearly impossible to reproduce by any other means. Stieglitz, perpetually concerned with this problem, worked tirelessly to perfect the photogravure printing process as a way to photomechanically reproduce the lush textures and tones of these photographs. In spite of his astounding success with photogravure, Stieglitz disliked reproducing his work in ink, writing, “The quality of *touch* in its deepest living sense is inherent in my photographs. When that sense of *touch* is lost, the heartbeat of the photograph is extinct.”³⁶

Conclusions

More than one hundred years ago, Pictorialists began to disseminate their ideas through societies, journals, and exhibitions, helping to establish a cultural and artistic value for photography as well as a sense of identity and status for photographers. These artists sought to reveal the subtle nuances of photographic printmaking and believed in the importance of print quality as a means to elicit emotions and promote an appreciation for beauty. Both the platinum and palladium processes were an important means for achieving these aesthetic goals. Yet the rise of modernist practices and the cessation of manufactured platinum and palladium printing papers forced the near-obsolence of these processes by the 1940s. However, the enduring beauty and power of these photographs would inspire future generations to revive and explore platinum and palladium printing,³⁷ sparking a reexamination of photography’s past while pushing the processes into new and exciting directions.

In our contemporary world dominated by a screen culture populated with digital imagery, it is crucial to view and analyze actual physical photographs, to have the rich sensorial experience described by Stieglitz. *Platinum and Palladium Photographs* reveals exactly what can be gained by the careful examination of photographs as material objects—allowing us to better appreciate the physical attributes achieved by artists through deliberate and skillful manipulation of process and technique. The volume also opens up new lines of thinking and questioning about platinum and palladium photography, processes that were once thought to be well understood. As photographs and photographically based images continue to be a significant means of communication across the globe, such studies of the history and practice of photography become all the more important.

Acknowledgments

I would like to thank Constance McCabe for her unwavering support and thoughtful review of this essay. And a very special thanks to the platinum/palladium research group for their warm welcome and insightful discussions. Your knowledge and generosity are truly amazing, and I have learned so much from all of you.

Notes

1. Gum dichromate prints are made by applying dichromate salts (sodium, ammonium, or potassium dichromate) to a sized paper or other support, which is then coated with gum Arabic mixed with pigment. After contact-printing from a negative, the print is washed and easily manipulated by the photographer with a brush or tool, and once the print is dried, the process can be repeated to build up layers of pigment. See Kennel 2009, 53.
2. Edwards 2009a.
3. See Ronel Namde and Joan M. Walker, “Platinum Toning of Silver Prints,” in this volume.
4. Bok 1900, 346.
5. Bunnell 1992, 11.
6. See the exquisite portrait by Alvin Langdon Coburn, *Sadakichi Hartmann as “Japanese Mask,”* plate 8 on page 36, in this volume.
7. Hartmann 1904, 24.
8. Edwards 2009b, 4.
9. See John Falconer, “Maurice Vidal Portman and the Platinotype in India,” in this volume.
10. Edwards 2009b, 14. The incredibly varied tonal range available in platinum was not always utilized fully because such effects were interpreted as being “too artistic.”
11. Robinson 1869.
12. Bunnell 1992, 11.
13. See Philippa Wright and John Taylor, “Peter Henry Emerson’s Platinum Prints and Photogravures,” in this volume.
14. Emerson and Goodall 1886.
15. Stieglitz 1903.
16. Stieglitz would continue such experimentation with the palladium process. See Sarah Greenough, “A Great Day for Palladio: Alfred Stieglitz’s Palladium Prints,” in this volume.
17. Analysis at the National Gallery of Art indicates the presence of mercury in this print. It should be noted that the mercury may have been introduced as a component of the sensitizer, developer, or both. Commercial papers were available for platinum prints in black or sepia. See Mike Ware, “The Technical History and Chemistry of Platinum and Palladium Printing,” and Sarah S. Wagner, “Manufactured Platinum and *Faux Platinum* Papers, 1880s–1920s,” in this volume. See also McCabe and Glinsman 1995.
18. Keiley 1900, 225.
19. Bunnell 1992, 13.
20. Stieglitz 1899, 24. Stieglitz writes, “Mrs. Käsebier is, beyond dispute, the leading portrait photographer in this country.”

21. Research into the relationship between the Library of Congress glass-plate negative and extant prints in museum and private collections is still in its early stages; however, at this time the author has yet to find a matching print made from the negative in its current state. Recent technical analyses of the prints in the collections of the Museum of Modern Art and the Art Institute of Chicago have revealed the presence of mercury in their two prints. See, for example, on the Art Institute's website, The Alfred Stieglitz Collection, <http://media.artic.edu/stieglitz>.

22. The prints on Japanese paper may have been printed on a commercially sensitized paper by Helios Photographic Paper Company, which Käsebier endorsed. See an advertisement for "Helios Platinotype Products" in *Western Camera Notes* 1 (August 1903): vi, as cited in Wagner, "Manufactured Platinum and Faux Platinum Papers," in this volume.

23. See Caroline Minchew, "Platinum Paper Tins," in this volume.

24. Weaver 1986, 11–18. Coburn worked in Gertrude Käsebier's studio and became a member of the Photo-Secession.

25. Joan Walker, analysis report of Alvin Langdon Coburn, *London Bridge*, 1904, NGA 2008.65.1, August 2016, Scientific Research Department, National Gallery of Art. Analysis by attenuated total reflection–Fourier transform infrared spectroscopy (ATR–FTIR) could not definitively identify the presence of a superficial coating. However, some spectral features consistent with a trace amount of natural resin (e.g., sandarac, shellac) were noted. Examination with ultraviolet A light (UVA) illumination revealed a slight yellow-orange fluorescence.

26. See Alisha Chipman and Matthew L. Clarke, "A Technical Study of Paul Strand's Platinum Prints," in this volume.

27. For more details regarding gum dichromate over platinum prints, see Andreas Gruber, "The Platinum Print Technology of the Austrian Pictorialist Heinrich Kühn," in this volume.

28. Evans 1908, 129–30.

29. Shaw 1903, 15.

30. Lyden 2010, 5.

31. Evans 1900, 238.

32. See Pradip Malde, "Looking at a Platinum/Palladium Print," in this volume, and Frederick H. Evans, *Wells Cathedral: Stairway to Chapter House*, plate 6 on page 34, in this volume.

33. See Ware, "Technical History and Chemistry of Platinum and Palladium Printing," and Wagner, "Manufactured Platinum and Faux Platinum Papers," in this volume.

34. "Satista Paper" 1914, 221. See also Constance McCabe et al., "Satista Prints and Fading," in this volume.

35. "Palladiotype" 1917, 180. See also Greenough, "Great Day for Palladio," and Constance McCabe et al., "Alfred Stieglitz's Palladium Prints: Treated by Steichen," in this volume.

36. Quoted in Norman 1938, 110.

37. See Vasiliou Zatsis and Constance McCabe, "Irving Penn's Platinum-Palladium Prints," and Tatiana Cole, "The Platinum Renaissance: Oral Histories of Platinum-Palladium Printers and Artists," in this volume.

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