TECHNICAL HIGHLIGHT

Distinguishing Platinum Prints from Photogravures Constance McCabe

It is sometimes difficult at first glance to distinguish a platinum print from a high-quality photogravure. To the unaided eye both may have the appearance of a continuous-tone photograph. Platinum prints, however, are true photographs—the result of light and chemistry to produce an image (fig. 1). Photogravures are printed using oil-based ink that is transferred from a metal plate matrix subjected to a complex multistep intaglio photoengraving process (fig. 2). The finest photogravures are made with copper plates, which are dusted with minute rosin particles and then heated to melt the resin dust. The particles form a resist that partially protects the plate during the acid etching process, breaking up the continuous tone of the source photograph by creating minute granular recesses that are proportionate to image density. The etched plate is then inked and wiped to remove excess ink. The ink that remains in the etched recesses transfers to the paper as it passes through the press, producing a print with an image that consists of randomly distributed deposits of ink on the surface of the paper. These deposits

are visible when examined under magnification (see fig. 2a). Patterned screens, such as ones using regularly spaced dots, squares, or ruled lines, may also be used to break up the continuous image into halftones, but they tend to yield lower-quality prints.

The delicately nuanced tones of platinum prints and photogravures often share a similar palette that ranges from sepia to neutral to a subtle blue-black, and both may display a velvety matte surface. Either print type may even feature a plate mark, which could provide evidence of its production or may be a decorative finishing embellishment created by impressing the mark with a printing press. In addition to those of Peter Henry Emerson, outstanding examples of photogravures that simulate platinum prints are found in Alfred Stieglitz's celebrated journal, *Camera Work*.

While photogravures may closely approximate the appearance of platinum prints when viewed with the naked eye, the differences in their material characteristics are evident when they are examined with the aid of magnification (see figs. 1a and 2a).



Figure 1. Peter Henry Emerson, *The Old Order and the New*, 1886. Platinum print, 11.9 × 23.1 cm. Plate XII from 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.l.

³⁰² Constance McCabe, "Distinguishing Platinum Prints from Photogravures," 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), 302–303.



Figure 2. Peter Henry Emerson, *The Edge of the Broad*, 1893. Photogravure, 19.8 × 29.1 cm. From P. H. Emerson, *On English Lagoons* (London: D. Nutt, 1893). National Gallery of Art, Robert Menschel and the Vital Projects Fund, 2013.55.1.10.



1a. Detail viewed under $30-50 \times$ magnification, revealing key features of this platinum print on a plain paper. The individual translucent cellulose fibers are darkened internally where the submicroscopic platinum image resides. The greater the quantity of platinum, the darker the paper fibers become. The individual fibers are clearly visible. Scale bar = 1 mm.



2a. Detail viewed under $30-50 \times$ magnification, revealing deposits of ink, which may include visible pigment particles, on the surface of the paper. These randomly shaped deposits of ink mask the paper fibers in the darkest areas of the print, with unobscured areas of the paper visible only in the lightest areas of the image where little or no ink resides. Scale bar = 1 mm.