David Octavius Hill (Scottish, 1802–1870) and Robert Adamson (Scottish, 1821–1848)

Mrs. Anna Brownell Jameson

1844
Salted paper print
Alfred Stieglitz Collection

AIC accession number: 1949.687

Stieglitz Estate number:

Inscriptions: Inscribed recto, lower left, in graphite: "C687"; verso, center, in graphite: "Original Hill print"

Dimensions: 21 x 15.5 cm (image); 21.8 x 16.2 cm (paper); 35 x 28 cm (mount)

Print thickness: 0.122 mm

Surface sheen: Low gloss (3.3 GU @ 85°)

Paper tone: L*82.59, a*0.88, b*11.66

Mount: Original

Mount tone: L*85.63, a*2.89, b*16.06

Ultraviolet-induced (UV) visible fluorescence (recto): None

X-ray fluorescence (XRF) spectrometry:
See below

Fourier transform infrared (FTIR) spectrometry:
N/A

CONTEXT

The work of David Octavius Hill and Robert Adamson was an inspiration to Pictorialist photographers active in later decades. Admirers of the duo's work praised its grainy textures and rich tonality, evocative of artistic expression. Alfred Stieglitz twice published this portrait of the writer and art historian Anna Brownell Jameson in *Camera Work*. This salt print was likely created while Hill and Adamson were still active. Materials research has revealed that the paper Hill and Adamson used contains microscopic specks of blue glass—an additive typically used to brighten writing papers—reflecting the improvised nature of photographic processes at this time.

TECHNICAL SUMMARY

This photograph is a salted paper print on thin paper. It is untrimmed, and the edges of the negative as well as brushstrokes from the application of the light-sensitive material are fully visible in the margins. The print is adhered along the top edge to its original cream mounting board; adhesive residue along the left edge of the mount suggests the attachment of an original window mat, now lost. On the verso of the print is an Art Institute of Chicago collection label, as well as a graphite inscription that reads "Original Hill print." When the surface of the print is viewed under high magnification, the fibers from the paper are visible, and the image sits directly on the fibers, as is typical of salted paper prints. In low-density areas of the image, blue particles embedded throughout the paper fibers can also be seen. When analyzed with XRF spectrometry, high peaks of cobalt and lead were detected and have been associated with these blue particles. Smalt (blue cobalt glass) was often included in the paper pulp during production, to increase whiteness and help prevent yellowing during aging. Silver and trace amounts of iron were also detected with XRF. Silver peaks originate from the image material; the presence of iron is due to residual iron inclusions in the mount. The print does not fluoresce when exposed to long-wave UV radiation.

X-RAY FLUORESCENCE (XRF) SPECTROMETRY

XRF spectral readings were taken from the recto of the work and from the mount when available. The elements listed below have been positively identified in the work; elements in bold have been attributed to the processing of the print.

Print: Co, **Ag**, Pb

Mount: Mn, Fe, Cu, Zn

The graph below shows XRF spectra for three distinct measurement areas on the print: the darkest, maximum-density image area (Dmax, purple); the lightest, minimum-density image area (Dmin, green); and the mount, when available (orange). The background spectrum (gray) represents the characteristic contribution of the instrument itself as measured on a Teflon reference and is included in order to discount irrelevant elements from the print's signature. Elements were identified based on the presence of their characteristic peaks. Analysis was performed with a Bruker/Keymaster Tracer III-V+ energy-dispersive handheld XRF analyzer, equipped with changeable Ti and Al filters and a Rh transmission target. Measurements were taken for 120 or 180 LT at 40 kV and 10 µA. The spectrum below illustrates the significant peaks for this print in the energy range from 3 to 11 keV.

Figure 1. (right)
Locations of XRF measurements

Figure 2. (below)
XRF spectra from the Dmax, Dmin, mount, and background signal produced by the analyzer.