

OBJECT RESEARCH



**Alfred Stieglitz (American, 1864–1946)**

## The Hand of Man

1902, printed 1920/39

Gelatin silver print

Alfred Stieglitz Collection

**AIC accession number:** 1949.703

**Stieglitz Estate number:** 123A

**Inscriptions:** Unmarked recto; inscribed verso, on mount, lower left, in graphite: "123A"

**Dimensions:** 8.9 x 11.9 cm (image/paper); 34.4 x 27 cm (mount)

**Print thickness:** N/A

**Surface sheen:** Medium gloss (10.7 GU @ 60°)

**Paper tone:** N/A

**Mount:** Original

**Mount tone:** L\*94.73, a\*-0.68, b\*8.11

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

**X-ray fluorescence (XRF) spectrometry:**  
See below

**Fourier transform infrared (FTIR) spectrometry:**  
N/A

## CONTEXT

This photograph, taken from the back of a moving train, was published in the first issue of *Camera Work*, in January 1903. A note in the issue explained the image as conveying not a contrast between man and machine, but rather a link between art and the everyday: “The Hand of Man by Alfred Stieglitz, the last plate in this number, is an attempt to treat pictorially a subject which enters so much into our daily lives that we are apt to lose sight of the pictorial possibilities of the commonplace.”<sup>1</sup> Compared with the earlier photogravure print of this image (1949.850), dominated by the atmospheric effects of smoke and clouds, this print of the image focuses on the crisp lines of the train tracks.

## TECHNICAL SUMMARY

This photograph is a gelatin silver print. Due to its size, the same as a standard 4 x 5 negative, it is believed to be a contact print. It has been double mounted to another sheet of paper of the same size and then mounted overall to a larger white board mount. The mount does not appear to have any signatures or inscriptions from Stieglitz, but the negative number of the print, “123A,” was included at the bottom left corner. An earlier photogravure print created by Stieglitz from the same negative, also titled *The Hand of Man* (1949.850), is in the Stieglitz Collection. When the surface of the print is viewed under high magnification, fibers from the photographic paper are not visible, indicating the presence of a thick baryta layer beneath the emulsion. Silver, barium, and strontium were detected using XRF spectrometry. Barium and strontium are present due to the baryta layer typical of gelatin silver prints; this was used to create a smooth surface over the paper upon which the gelatin emulsion was applied during manufacture. This print is glossy and does not fluoresce when exposed to long-wave UV radiation.

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<sup>1</sup> “The Pictures in This Number,” *Camera Work* 1 (Jan. 1903), p. 63.

## 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: Sr, **Ag**, Ba

Mount: Fe, Cu, Zn, Pb

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  $\mu$ A. The spectrum below illustrates the significant peaks for this print in the energy range from 3 to 16 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.

