Alfred Stieglitz (American, 1864–1946)

An Icy Night, New York

1898
Carbon print
Alfred Stieglitz Collection

AIC accession number: 1949.689

Stieglitz Estate number: 129D

Inscriptions: Unmarked recto; inscribed and signed verso, on mount, upper left, upside-down, in graphite: "J 3/2 5669 / 10 1/8 - 13 1/2 / Crystal over Inside [?] / Stieglitz"

Dimensions: 26 x 34 cm (image/paper/mount)

Print thickness: N/A

Surface sheen: Low gloss (2.7 GU @ 85°)

Paper tone: N/A

Mount: Original

Mount tone: N/A

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

X-ray fluorescence (XRF) spectrometry:
See below

Fourier transform infrared (FTIR) spectrometry:
N/A

CONTEXT

After the English photographer Paul Martin showed his night photographs at the 1896 Royal Photographic Society exhibition and published his methods in the *Amateur Photographer*, night photography—taken without the benefit of additional gas or electric light—found many adherents. Stieglitz also tried his hand at the technique and was proud to report that in contrast to Martin's exposure time of a half hour, his was a mere 58 seconds. Stieglitz's innovation was to embrace, for pictorial purposes, what Martin attempted to conceal: "Paul Martin's work shows an entire lack of halation around his lights, which, although speaking well for his technical skill in mastering the photographic bugbear halation, is a decided shortcoming from a pictorial point of view. We do not wish to say that halation galore improves night-work in which the illuminating source is included, but a certain amount of it certainly gives a more sincere and picturesque rendering of he object itself."[1] Handwritten pencil notations on the verso referring to framing dimensions indicate that this was likely an exhibition print.

TECHNICAL SUMMARY

This photograph is a carbon print. The print has been mounted overall to a thick wood-pulp board. Fine cracking at the edge of the print indicates that the print was likely trimmed after it had been fully mounted. There are framing instructions in graphite on the verso of the mount, as well as Stieglitz's signature. The variation of gelatin thickness on the print itself creates areas of differential gloss between the high- and low-density areas, which are visible in raking light and are characteristic of carbon prints. When the surface of the print is viewed under high magnification, paper fibers are visible beneath the gelatin layer. Black pigment particles are also visible within the glossy binder, as well as slight relief from the carbon process, particularly at the interface of high- and low-density areas of the image. The print does not fluoresce when exposed to long-wave UV radiation. Chromium, iron, lead, and strontium were detected using XRF spectrometry. Chromium is used to sensitize the gum bichromate. While iron and lead are not commonly used in carbon printing, the resulting high signals are likely from the processing and material components of this print. Calcium lead oxide or lead sulphide pigments might have been used in the pigment mixture of the image material, since these materials are light yellowish brown and black-gray respectively. Strontium was most likely introduced during the fabrication of the wood-pulp mount.

[1] Alfred Stieglitz, "Night Photography with the Introduction of Life," *American Annual of Photography and Photographic Times Almanac for 1898*, reprinted in Richard Whelan, ed., *Stieglitz on Photography: His Selected Essays and Notes* (Aperture, 2000), p. 83.

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: **Cr**, Fe, Pb

Mount: Fe, Cu, Zn, Sr

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 5 to 15 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.