

OBJECT RESEARCH



Alfred Stieglitz (American, 1864–1946)

Rebecca Salsbury Strand

1922

Palladium print

Alfred Stieglitz Collection

AIC accession number: 1949.718

Stieglitz Estate number: 55E

Inscriptions: Inscribed recto, on hinged mat, lower left, in graphite: "Treated by Steichen 2/1950"; recto, on hinged mat, lower right, in graphite: "Rebecca [underlined] Pd 1922"; inscribed verso of print, center, in graphite: "2 P"; verso of print, lower right, diagonally, in graphite: "C - 33E"; verso, on hinged mat, lower left, in graphite: "33E"

Dimensions: 24.5 x 19.3 cm (image); 25.2 x 20.1 cm (paper); 56.5 x 46.4 cm (hinged mat)

Print thickness: 0.289 mm

Surface sheen: Low gloss (10.4 GU @ 85°)

Paper tone: L*90.44, a*1.6, b*15.08

Mount: Original; with original presentation window mat

Mount tone: L*91.95, a*1.68, b*13.76

Ultraviolet-induced (UV) visible fluorescence (recto): Orange fluorescence around chin area

X-ray fluorescence (XRF) spectrometry:
See below

Fourier transform infrared (FTIR) spectrometry:
N/A

TECHNICAL SUMMARY

This photograph is a palladium print on a thin off-white paper. It is adhered at the top two corners to its original mount and engaged by the original window mat. There is an inscription, "C-33E," on the verso of the print, which correlates to the estate or "Leica" number that Georgia O'Keeffe and Doris Bry assigned to mounted prints from the same negative that were in Stieglitz's possession at the time of his death. The inscription "Treated by Steichen 2/1950" was written on the original mat. After Stieglitz's death, Georgia O'Keeffe asked Edward Steichen to treat some of Stieglitz's photographs that had begun to yellow. This palladium print was among those he treated. Though Steichen never disclosed his treatment process, this print shows cracking of the image material in the midtone areas, a recurring problem with prints he treated. 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, with no intermediary binder. When exposed to long-wave UV radiation, these cracked areas give off an orange fluorescence. Palladium and iron were detected using XRF spectrometry. Common to palladiotypes, the residual presence of light-sensitive iron ions could be due to improper washing of the print after processing.

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: **Fe, Pd**

Mount: Ti, Fe, Cu, Sr, 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 ARTAX air-path portable micro-XRF system equipped with a laser pointer, an integrated camera system, a Mo 12.5µm filter, and a Mo tube. Measurements were taken for 250 LT at 50 kV and 800 µA. The spectrum below illustrates the significant peaks for this print in the energy range from 3 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.

