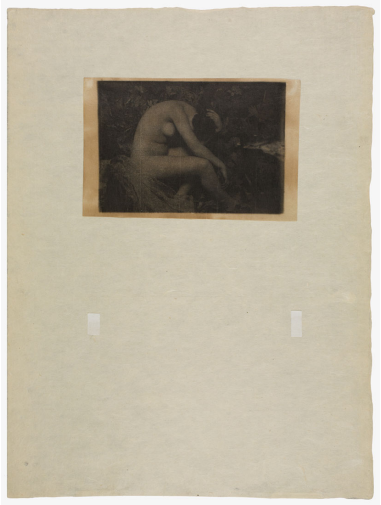

Frank Eugene (American, 1865–1936)

La Cigale

1898
Platinum print
Alfred Stieglitz Collection

AIC accession number: 1949.671

Stieglitz Estate number:

Inscriptions: No markings recto or verso

Dimensions: 12.2 x 17.2 cm (image); 13 x 19.9 cm (paper); 45.2 x 33.8 cm (mount)

Print thickness: 0.096 mm

Surface sheen: Low gloss (1.3 GU @ 85°)

Paper tone: L*70.58, a*7.86, b*21.91

Mount: Original

Mount tone: L*85.06, a*3.56, b*21.52

Ultraviolet-induced (UV) visible fluorescence (recto): Rectangle of fluorescence on the lower portion of the mount

X-ray fluorescence (XRF) spectrometry:
See below

Fourier transform infrared (FTIR) spectrometry:
N/A

TECHNICAL SUMMARY

This photograph is a platinum print on a thin Japanese paper. It is hinged at the corners to a sheet of handmade paper that has been unevenly trimmed. A photogravure created by Eugene from the same negative, also titled *La Cigale* (1949.678), is also in the Stieglitz Collection. This print is currently hinged to the center of the mount; however, there is evidence to suggest that this is not the print's original location. When the print is exposed to long-wave UV radiation, a distinct rectangle of fluorescence the same size as the photograph appears on the lower half of the mount paper. The lack of fluorescence in other areas of the mount is suggestive of natural light fading and indicates that at one point something covered the fluorescing area, thus protecting it from harmful UV rays. This and the adhesive residue on the mount indicate that the print was initially adhered to a different location (likely in the upper portion of the sheet, since it appears the mount was inverted in this process as well) and later rehinged to the center of the mount, potentially for exhibition. Though this work is unsigned, the heavily bottom-weighted mount is typical of Eugene's mounting style. The Japanese paper support of the print is extremely yellowed, which is a common occurrence with platinum prints as platinum accelerates the degradation of cellulose in the paper. When the surface of the print is viewed under high magnification, the fibers from the Japanese paper are visible, and the image sits directly on the fibers with no intermediary binder. Platinum, iron, lead, and mercury were detected using XRF spectrometry. Common to platinotypes, the residual presence of light-sensitive iron ions could be due to improper washing of the print after processing. Lead was introduced in the paper during fabrication, but it was also commonly used during the processing of platinum prints, to increase uniform development. The presence of mercury could be the result of the artist's use of mercuric chloride during processing, to create the print's warm tones.

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**, Zn, **Pt**, Hg

Mount: Ca, Mn, 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/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 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.