



Frank Eugene (American, 1865–1936)

## La Cigale

1898

Photogravure

Alfred Stieglitz Collection

**AIC accession number:** 1949.678

**Stieglitz Estate number:**

**Inscriptions:** No markings recto or verso

**Dimensions:** 12.2 x 16.9 cm (image); 13.1 x 17.5 cm (paper)

**Print thickness:** 0.321 mm

**Surface sheen:** Low gloss (3.9 GU @ 85°)

**Paper tone:** L\*91.49, a\*1.44, b\*10.31

**Mount:** Unmounted

**Mount tone:** N/A

**Ultraviolet-induced (UV) visible fluorescence (recto):** Printing ink fluoresces light green

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

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

## TECHNICAL SUMMARY

This print is a photogravure on an evenly trimmed and rigid white paper. Photogravure is an intaglio method of printing photographic images in ink, but this object has features that are uncharacteristic of the photomechanical printing technique: there are no plate marks, and the edges of the image display irregular brush marks that are usually associated with photographic processes in which a sensitized solution is applied directly to the paper with a brush. When the surface of the print is viewed under high magnification, the fibers from the paper are visible, and the image material sits directly on the surface, with no intermediary binder. Due to the features described above, and to its rich black tone, this print was originally thought to be a platinum print, created from the same negative as another print by Frank Eugene in the Stieglitz collection (1949.671). However, it was reclassified as a photogravure after XRF spectrometry did not detect any platinum in the print and examination under long-wave UV radiation revealed a hazy lime-green fluorescence emanating from the printing ink.

## 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: Zn

Mount: Ca, Ti, Fe, 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  $\mu$ A. 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.

