

AUTHENTICATION IN ART

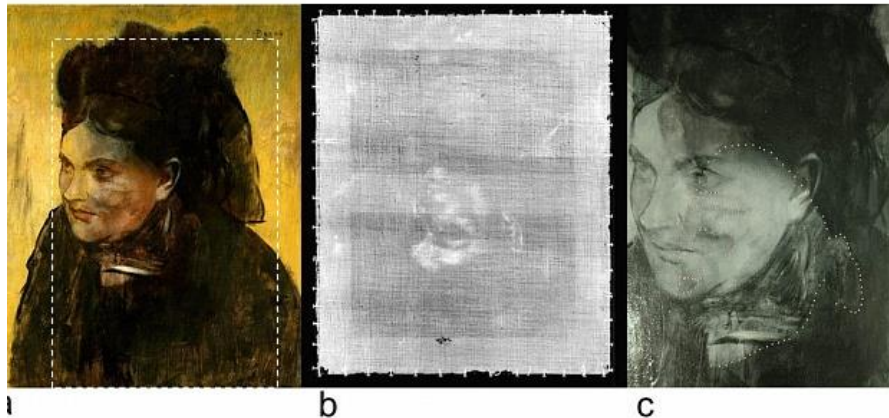
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INTERNATIONAL EDITION
THE ART NEWSPAPER

The mystery underneath a Degas down under

by [THE ART NEWSPAPER](#) | 9 August 2016



Edgar Degas, *Portrait de femme* (around 1876-80), with an X-radiograph image (centre) and reflected infrared image (left). Photo: A Hidden Portrait by Edgar Degas, David Thorrowgood, Darryl L. Howard et al, *Scientific Reports* 6, (2016)

The existence of an earlier portrait beneath Edgar Degas's *Portrait de femme* (*Portrait of a Woman*, around 1876-80), in the collection of Australia's National Gallery of Victoria in Melbourne, has been known for decades. But a group of scientists at the Australian Synchrotron now have a good guess at who is underneath: Emma Dobigny, one of Degas's favourite models, who worked with him from 1869-70.



The false colour profile that suggests Emma Dobigny was the model of the concealed painting. Photo: A Hidden Portrait by Edgar Degas, David Thorrowgood, Darryl L. Howard et al, Scientific Reports 6, (2016)

The team scanned the painting using a rapid, non-invasive, high-resolution X-ray fluorescence (XRF) technique to map out the metallic elements, like Cobalt and Zinc, in the pigments of the concealed painting. A specially-designed software programme then layered the different elemental maps into a false colour profile of what this painting could look like. This XRF technique could solve other art historical mysteries, or even be used for authentication purposes, [the team said in their report](#), published online last week. The identity of the woman in the visible portrait, however, remains unknown.