

THE SCIENCE OF ART



UNCOVERING GAUGUIN'S ARTISTIC METHOD

Analysis by a conservation scientist from the University of Saskatchewan assisted the National Gallery of Canada in their research on a sculpture by Paul Gauguin. The 19th century piece, *Portrait of Meijer de Haan*, is part of the NGC's Gauguin exhibit and a subject of research for the past four years. Beeswax has recently been identified within the samples. The CLS was used to analyze paint cross-sections and confirm that beeswax was applied as a coating over the paint and had infiltrated into the paint itself. The results have illuminated a key piece of artistic technique employed by Gauguin 130 years ago.

Paul Gauguin
Portrait of Meijer de Haan, c. 1891-1893
Mixed tempera, oil and metallic color on oak, 58.4 x 29.8 x 22.8 cm
National Gallery of Canada, Ottawa
Photo: NGC

CONSERVING RITA LETENDRE'S FAMOUS ARTWORKS

Science can help conserve oil paintings like Rita Letendre's abstract work. The Art Gallery of Ontario and the Canadian Conservation Institute used the Mid-IR beamline to shine light on the source of deteriorating brushstrokes. They found that a combination of experimental techniques and paint additives was behind both crumbling base layers and delicately soft spots on the canvas. Understanding the source of degradation is key to restoration efforts and helps professionals restore priceless works of art.



Rita Letendre
"Victory" (Victory), 1961
Oil on canvas, Overall: 202.6 x 268 cm
Art Gallery of Ontario
Gift of Jessie and Percy Waver, 1974, donated by the Ontario Heritage Foundation, 1988
© Rita Letendre 1748

DOI: 10.1080/00393630.2020.1773055

THE INTERSECTION OF SCIENCE, ART, & HISTORY

Students and faculty at the University of Saskatchewan involved in a joint Chemistry/Classical, Medieval, and Renaissance Studies course used the CLS to shed new light on ancient coins and other artifacts. The class worked to uncover what the artifacts were made of, how they were made, and what happened to them over time, including a bronze inkwell from Medieval Persia. Their work demonstrated the benefits of collaborative interdisciplinary research and highlighted how synchrotron science can provide new information about old artifacts.



Courtesy of Chris Potham



SEEING THROUGH THE FOG

The Canadian Photography Institute collection numbers more than 2,700 images, not including the daguerreotypes in the institute's research collection. Scientists from Western University learned how to use light to see through degradation that has occurred over time. Two images from the National Gallery of Canada's photography research unit show photographs that were taken, perhaps as early as 1850, but were no longer visible because of tarnish and other damage. The retrieved images, one of a woman and the other of a man, were beyond recognition. By improving the process of restoring these centuries-old images, the scientists are contributing to the historical record. Images showing the life and times of people from the 19th century that were thought to be lost can now be found.

DOI: 10.1038/415398-010-27714-5