

Science to the rescue of art

September 14 2014, by Pascale Mollard-Chenebenoit



A file photo taken on January 24, 2014 shows a gallery supervisor posing in front of two versions of Dutch artist Vincent van Gogh's Sunflowers paintings at the National Gallery in London

Vincent van Gogh's "Sunflowers" are losing their yellow cheer and the unsettling apricot horizon in Edvard Munch's "The Scream" is turning a dull ivory.

Some of our most treasured paintings are fading, warn experts who would like more money for the use of sophisticated technology to

capture the masters' original palettes before the works are unrecognisably blighted.

"Our cultural heritage is suffering from a disease," Robert van Langh, director of conservation and restoration at Amsterdam's Rijksmuseum, told AFP in Paris this week.

"These priceless icons of our culture are deteriorating," he said. And the amount spent on conserving them "should be multiplied by ten."

Van Langh was speaking on the sidelines of a conference on the use of synchrotron radiation technology in art conservation at the molecular level.

Synchrotrons, stadium-sized machines that produce beams of bright X-ray light, are used to analyse the chemical degradation of famous artworks gracing the museums of the world.

Much more science is needed to understand the chemical reactions that cause colour changes in canvases, in order to stop them, said Jennifer Mass, an art conservationist from Winterthur Museum in Delaware, who also attended the meeting.

"There are heaps of researchers ready to do this work, but very little money."

Understanding the degenerative process would allow museums to display the precious works in the appropriate light, atmosphere and humidity.



People look at Edvard Munch's "The Scream," in Manhattan's Museum of Modern Art (MOMA) in New York City

But technology would also allow "digital reconstruction" of original pieces, as they were envisaged by their creators, for posterity.

"The goal is more preservation than restoration," said Mass, adding that restorers would only in very rare cases touch up the original work of an artist.

Fading like a flower

Experts already know that the iconic still life "Sunflowers" is browner today than when van Gogh captured it on canvas in 1888.

It turns out the Dutch Impressionist painter had opted for industrial

pigments, then new on the market, for his yellows, according to Belgian chemist Koen Janssens of the University of Antwerp.

Exposed to air, the yellow in cadmium, also used by Munch for his 1910 work "The Scream", loses its brightness, while ultraviolet light—as from the Sun—turns it brown.

Janssens has also worked on van Gogh's famous "Flowers in a Blue Vase", which has suffered a similar fate but for a different reason.

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