

## Lifestyle | Art

## Leonardo's 'quick eye' may be key to Mona Lisa's magnetism

Scientists believe Leonardo da Vinci's super-fast eye may have helped him catch the enigmatic magic of Mona Lisa's smile. This superhuman trait, which top tennis and baseball players may also share, allowed the Renaissance master to capture accurately minute, fleeting expressions and even birds and dragonflies in flight. Art historians have long talked of Leonardo's "quick eye", but David S Thaler of Switzerland's University of Basel has tried to gauge it in a new study published Thursday alongside another paper showing how he gave his drawings and paintings uncanny emotional depth.

## Freeze frame

Professor Thaler's research turns on how Leonardo's eye was so keen he managed to spot that the front and back wings of a dragonfly are out of synch—a discovery which took slow-motion photography to prove four centuries later. The artist, who lived from 1452 to 1519, sketched how when a dragonfly's front wings are raised, the hind ones are lowered, something that was a blur to Thaler and to his colleagues when they tried to observe the difference themselves. Thaler told AFP that this gift to see what few humans can may be the secret of

Leonardo's most famous painting. "Mona Lisa's smile is so enigmatic because it represents the moment of breaking into a smile. And Leonardo's quick eye captured that and held it," he said.

"So often our memories are of a fixed image, not a movement. Leonardo and perhaps other artists had that ability to pick up the point of breaking into a smile" or emotion. Thaler suspects the Japanese painter Hokusai—best known for "The Great Wave of Kanagawa"—had the same ability. The Edo master (1760-1849) also picked up the difference in dragonfly wings, which led Thaler to wonder if "he saw (in) the same freeze-frame way as Leonardo".

Thaler applied "flicker fusion frequency" (FFF)—similar to a film's frames per second—to try to judge Leonardo's extraordinary visual acuity in the study for the Rockefeller University in the US as a part of a wider Leonardo DNA Project looking at the Renaissance polymath. Because of our slower FFF, we construct a single 3D image of the world by jamming together many partially in-focus images, he said.

Leonardo realised he could freeze the separate snapshots with which we construct our perception, Thaler believes. Thaler told AFP that he was fasci-



In this file photograph visitors take pictures in front of the Mona Lisa after it was returned at its place at the Louvre Museum in Paris. —AFP

nated by the case of Ted Williams, an American baseball legend who claimed to have trained himself to see the seams of a baseball as it flew towards him. "It is said that elite batters can see the seams" even when the baseball is rotating 30 to 50 times per second, Thaler said.

In Leonardo's case, Thaler estimated that to see

the difference in batting dragonfly wings clearly, the artist would have to have an FFF range of 50 to 100 frames per second. The average person's is between 20 to 40 per second. Thaler told AFP it was not clear if the gift was genetic or if it could be learned.

Da Vinci's 'evening' portraits

The researcher also described in another paper how Leonardo used psychophysics—much of which still remains a mystery today—to communicate beauty and emotion. He said Leonardo's mastery of the sfumato technique—which subtly blurs the edges of images and creates a 3D effect—allowed him to render lifelike expressions and gave an intimate gaze to his portraits. He believes that Leonardo achieved selective soft focus in portraits by painting in overcast or evening light, where the eyes' pupils enlarge to let in more light but have a narrow plane of sharp focus. The enlarged pupils of his sitters—also a sign of affection or attraction—were a mark of beauty in Renaissance portraits. It appears to confirm what the artist himself wrote in his notebook: "In the evening and when the weather is dull, what softness and delicacy you may perceive in the faces of men and women..."—AFP

## Microbes could 'help save Old Masters' and catch forgers

Scientists said Thursday that microbes could be game changers in authenticating and preserving Old Master paintings and other art. A new US study could have far-reaching consequences for the \$60 billion a year art market, in which provenance can be notoriously hazy and difficult to pin down. Researchers said microbes clinging to the surface of paintings and sculptures can be used not only to help identify counterfeits, but they could also be crucial in halting the decay of some of the world's great cultural treasures.

The team from the J. Craig Venter Institute (JCVI) also raise the prospect of artists' DNA being used to seal the provenance of even centuries-old works. Microbiologist Manolito Torralba told AFP that the tiny organisms which live on art can point to the origin of a work and in some cases where it has been kept over its history. The study, using samples taken from art held in a private collection in the Italian Renaissance capital of Florence, claims to be the "first large-scale genomics-based study to understand the microbial communities associated with ageing artwork." Professor Torralba said the technology used by him and other researchers could also be used to pick up human DNA on the art as "another approach for detecting counterfeits", eventually enabling researchers to authenticate a painting or a manuscript.



Photo summary of the various artworks sampled for the study "Characterizing microbial signatures on sculptures and paintings of similar provenance." Circles indicate swabbed areas on each sample artwork. —Photo from JCVI

## DNA signatures

"Many Renaissance artists used their own biological material in their artwork," he told AFP. "Leonardo and others were very known for using their own saliva and some used their own blood," said the researcher, a leading member of the Leonardo da Vinci DNA Project, which hopes to confirm that the remains entombed at the Chateau of Amboise in France, where the Italian master died in 1519, are indeed his. But Torralba said study-

ing microbes' hidden artistic life had potentially even more far-reaching implications. "If you move a piece of artwork from one region to another it is colonised by bacteria from the new region." "It doesn't show an absolute timeline of where it was... but you can see that it may have come from a particular area," he added.

## Fast-tracking restoration

But investigating microbes that live on art could be even more revolutionary when it comes to preservation and restoration, Torralba argued. Bacteria can "remain on a work for a very long time", feeding on oil paint or canvas. He said that microbes can survive often aggressive cleaning and restoration attempts, some of which have ended up doing more harm than good. "We know we can detect who is there," Torralba said referring to the microbial populations on a work.

"The next step is to detect what they are doing and what they are metabolising," he added. "Then we can have a very specific approach to killing off the bacteria that may be degrading these pieces of art." "That should be the approach for preservation and conservation, because you can only do so much to prevent mould, moisture and light damage," Torralba said that "restoration labs spend an incredible amount of effort and money on restoring art." But a "molecular approach can fast-track a lot of restoration efforts," he insisted.—AFP

## Online Pablo Picasso auction raises almost £5 million



Pablo Picasso's Le Reservoir is exhibited as Sotheby's NY previews highlights of the Evening Sale at Sotheby's during the coronavirus pandemic on June 19, 2020 in New York City. —AFP photos



Pablo Picasso's Femme Assise is exhibited.



Pablo Picasso's Tête de femme endormie is exhibited.

An online auction of almost 200 works spanning the career of world famous Spanish artist Pablo Picasso fetched almost five million pounds, London auctioneers Sotheby's said on Friday. It was the first auction organised by Sotheby's since the UK partially lifted its coronavirus lockdown rules in the first half of May. The 10-day World of Picasso sale ending Thursday included 60 works from the private collection of the artist's granddaughter Marina Picasso.

Some 188 works together totalled 4,832,125 pounds or \$6,128,101 with 92 percent of lots sold and 83 percent of those "selling for prices above their high estimates," Sotheby's said in a statement. The highest selling item was a 1950 vase - "Grand Vase aux Femmes Nues" - which sold for 435,000 pounds (482,000 euros, \$540,000), said Sotheby's.

Another notable sale was a palette used by Picasso, which sold for more than 56,000 pounds despite having a maximum sale estimate of just 6,000 pounds. There were 39 bids for the palette, which the artist used in June 1961. Pastels, ceramics and silver plates were among the other items for sale. Picasso, who died in France in 1973 aged 91, was one of the most influential artists of the twentieth century and was one of the founders of the Cubist movement.—AFP

## Photos of stolen Van Gogh handed to Dutch art sleuth

A Dutch art detective revealed Thursday he has received two recent photographs of a Vincent Van Gogh painting stolen from a museum during the coronavirus lockdown. Burglars snatched the 1884 painting "Parsonage Garden at Nuenen in Spring", which is valued at up to six million euros (\$6.6 million), from the Singer Laren Museum near Amsterdam on March 30. Arthur Brand, dubbed the "Indiana Jones of the Art World" for tracing a series of high-profile lost artworks, said he was handed the photos a few days ago by a source he declined to identify.

The photographs, of which AFP was given two copies, show the painting, together with a front page of the New York Times newspaper of May 30 to prove when the photos were taken. "After three months of intensive investigation, I was handed these pictures. This is the first 'proof of life' we have that the painting still exists," Brand said, adding that valuable pictures are often destroyed when the thieves realise they cannot be sold.

He added that the photos were "circulating in mafia circles". In the photographs, a new scratch can be seen on the bottom of the painting, which Brand said he believed must have happened during the robbery. The New York Times issue in the photographs of the painting featured an interview with Brand and Octave Durham, the notorious Dutch burglar who stole two paintings from Amsterdam's Van Gogh Museum in 2002. It also showed a copy of Durham's 2018 book "Master Thief", placed on a black plastic background.

Asked about the authenticity of the painting shown in the photos, Brand said one of them shows the back of the artwork featuring the so-called provenance—the history of ownership—which serves almost as a type of fingerprint for the artwork. "There is no doubt in my mind that



This handout photograph released by Arthur Brand on June 18, 2020, taken on an unknown date and at an undisclosed location, shows the 1884 painting by Vincent van Gogh called "Parsonage Garden at Nuenen in Spring", stolen from the Singer Laren Museum near Amsterdam on March 30, 2020, alongside a copy of May 30, 2020, edition of The New York Times newspaper. —AFP photos



This handout photograph shows a detail on the rear of the 1884 painting by Vincent van Gogh called "Parsonage Garden at Nuenen in Spring."

this is the genuine article," he said.

## 'Great number of tips'

Brand, who declined to divulge how he obtained the photos, said he believed there could be a number of reasons the art thieves decided to circulate them. "It could simply be that they are trying to find a buyer in the criminal underworld," he added. The photographs "could also be a plan to try and cast suspicion on Durham, because they used his book in the pictures," he said. Durham however was in hospital in Amsterdam at the time of the latest heist "and has a rock-solid alibi", the detective said.

However, the reasons could be even more personal said Brand, who has recovered stolen art including a Picasso painting and "Hitler's Horses", life-sized bronze sculptures that once stood outside the Nazi leader's Berlin chancellery. "Perhaps they want to make a deal with prosecutors, using the painting as leverage," the Amsterdam-based detective said.

"Or perhaps they just want to toy with me, because they know I am investigating the case, and that I took it personally when they stole a Van Gogh right from my back yard," he said. Dutch police video images released shortly after the burglary showed a burglar smashing through a glass door at the museum in the middle of the night, before running out with the painting tucked under his right arm. Police in their latest statement said "we have received a great number of tips in this case." Asked if he had passed on the information to the Dutch police, Brand said "he was following the usual channels". "Parsonage Garden at Nuenen in Spring" comes from relatively early on in Van Gogh's career, before the prolific artist embarked on his trademark post-impressionist paintings such as "Sunflowers" and his vivid self-portraits.—AFP

## Paris Ritz sells off its silver... and ashtrays

Historic silver, crystal and ashtrays from the Paris Ritz hotel went under the hammer in the French capital in a three-day sale which started yesterday. The mythic hotel on Place Vendôme was a favourite of such icons as actress Audrey Hepburn, fashion designer Coco Chanel—who spent part of World War II tucked up there with her lover, a German spy—and the American writer Ernest Hemingway, who "liberated" its bar when the Allies retook the city. More than 1,500 lots from bed linen to bathrobes and ashtrays from the Ritz Club, which are estimated to go between 100 and 150 euros (\$168) apiece, will be sold off by

the auction house Artcurial from Sunday to Tuesday.

Two years ago some of the hotel's historic furniture was sold off for 7.2 million euros—seven times the estimate—after a major refurbishment of the hotel. Bidders from 53 countries competed for the pieces, many of which dated from its earliest era days at the turn of the 20th century under founder Cesar Ritz and the legendary French chef Auguste Escoffier. This time the star attraction will be the 400 lots of its silver service as well as its vintage crystal, much of it from the famous "Hemingway Bar" named after the hard-drinking writer.—AFP



This file photograph, shows the entrance of the closed luxury hotel "Ritz" in Paris, on the 36th day of a strict lockdown aimed at curbing the spread of the COVID-19 pandemic, caused by the novel coronavirus.—AFP