

The war against forgery

A Talented artists used to make thousands of pounds from 'forging' works of art. This involved painting a picture in the style of a famous artist and then selling it as an 'undiscovered' work by that artist. Forgery is an illegal practice but it is very difficult to prove. As a result, many galleries still believe they own forgeries. They hope that science will help them to identify whether their paintings are the real thing or fakes.

B In the past, galleries have relied on experts, who used their experience to analyze the look of a painting and decide whether it matched the style of a well-known artist. Expert analysis has limitations, however. The human eye cannot identify the age of the materials used, or see underneath the paint to the canvas that the artist painted on.

C Infrared analysis, in contrast, can do this. This scientific method was used by the National Gallery in London to prove that an Italian painting was not created by the famous 15th-century artist Francesco Francia but by a forger. By analyzing the painting with infrared, scientists discovered that the drawing underneath the painting was done in pencil, a material which wasn't available in the 15th century. Of course, it's possible for forgers to avoid being discovered by infrared analysis. They simply use materials which were available at the time that the original painting would have been created.

D Another scientific technique makes the forger's job more difficult. The method of canvas analysis has been developed by Professor C Richard Johnson. He uses X-ray to see through the paint layer. A computer program then counts the number and pattern of threads in the canvas and attempts to match them to a canvas of a famous painting. The reason behind this method is that some well-known painters such as Vincent van Gogh bought their canvas in a roll of material, which means that several van Goghs from the same period should have the same number and patterns of threads in the canvas. This type of analysis can be done quickly and is very accurate.

E Like Richard Johnson, Eric Postma, Professor of Artificial Intelligence at Tilburg University in the Netherlands uses computers to analyze paintings, but his approach focuses on the painting rather than the canvas. He has invented brush-stroke analysis. A computer program studies the colours used by a particular artist and counts the number and combination of brush strokes used across a painting. If the number or style of brushstrokes differed in one painting to other paintings created by the same artist, Postma's team identified it as a fake.

F Computer analysis of art has been effective in identifying forgeries so far, but it's only a matter of time before the forgers find a way of avoiding discovery. However, Johnson believes that in the end, the scientists will win.

 **LIVEWORKSHEETS**

Now complete the table below. Choose **NO MORE THAN ONE WORD** from the reading passage for each answer.

Type of analysis	Method	Advantages/Disadvantages
Expert	Style of famous artist matched to the (1) of the painting.	Limited: experts can't date (2) or see through paint.
(3)	Looked at (4) below Italian painting.	Forgers can (5) <i>discovery</i> by using authentic materials.
Canvas	(6) looks through layer of paint. (7) and pattern of threads counted.	It's <i>quick</i> and (8)
(9)	Quantity and (10) of strokes counted by a program.	