Strokes of genius

An infrared digital camera allows Da Vinci’s Mona Lisa to be seen in a new light

When French engineer Pascal Cottereau, 31, his mother took him to the Louvre museum to see the Mona Lisa.

The 31-year-old reminisces: “I was 11 when my mother told me about the most beautiful painting – the Mona Lisa by Italian painter Leonardo da Vinci. It was in Paris and she took me to see it. Back then there was no glass wall so you could see it up close. I’ve always been interested in science and the Mona Lisa brought me to the arts.”

He has combined his lifelong love of both the sciences and the arts with his invention, a multi-spectral high-definition camera that allows one to see the Mona Lisa, one of the most well-known paintings in the world, in a whole new light.

Having spent three years studying Leonardo da Vinci’s famous portrait, he discovered 25 secrets which he has been sharing with audiences around the world in an exhibition.

Da Vinci – The Genius, which cost about $1 million, will be on at the Singapore Science Centre from May 18 to Aug 16.

The exhibition, about the 16th-century Italian Renaissance painter, scientist and inventor, contains about 200 exhibits with over 70 full-scale replicas of Da Vinci’s inventions which never saw the light of day in his lifetime but have now been produced by Italian artisans who studied his notebooks.

One section of the exhibit is devoted to the Frenchman’s discoveries about the Mona Lisa which he was invited by the Louvre to curate in 2004.

He says: “After studying other Da Vinci works, I learnt that he painted beautiful eyebrows of women in portraits but not for the Mona Lisa. With my camera, I can prove that he did intend to paint her eyebrows because I discovered a single strand of eyebrow hair.”

In his new Multi-Spectral Imaging Camera works by using a patented infrared technology. It scans a painting using a wide range of light – from the ultraviolet range to visible range to the infrared range – through layers of varnish and paint.

These scans can reveal the original colour of a painting and other intricate details not visible to the naked eye.

The father of five children also discovered the Mona Lisa’s original colour scheme and that Da Vinci had used a precious stone pigment to paint with. Although the camera used will not be the exhibit, there will be a 30-minute video showing the gadget in action and how it works.

While Da Vinci’s paintings are well known, this exhibition aims to celebrate the scientific side of the man as well.

Mr. Chew Pann Chong, chief executive of the Science Centre, says: “We’re excited to bring this exhibition to Singapore for a few years now and it is the right time as this is the arts season for the Science Centre. The exhibition is meant to highlight the mind and get people to see Da Vinci’s work with new eyes.”

Mr. Cottereau, whose love for the Mona Lisa is clear, says: “My dream is that day one, I will exhibit the perfect replica of the Mona Lisa as it was.”

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