

Gallery offers visitors a 3D digital sculpture in four seconds

Royal Academy of Arts to give people 'a sense of what you actually look like' using the Veronica Chorographic Scanner



📷 The Veronica Chorographic Scanner. Photograph: Factum Arte

The Royal Academy of Arts is to launch a groundbreaking experiment designed to give visitors the unsettling opportunity to see themselves as they really are.

The London gallery is to install cutting-edge technology in September as part of an interactive experiment using the Veronica Chorographic Scanner, which can capture every pore and pimple – as well as more positive attributes – in a 3D “sculpture”.

Adam Lowe, founding director of the Factum Foundation, which initially developed the scanner for medical purposes, said: “For the first time, you get a sense of what you actually look like. Most people dislike being photographed because, whenever you see a photograph, you know you don’t look like that. It’s a bit like hearing a recording of your voice. These are portraits untouched by human hands.” As an objective recording, he said, it differed from a sculptor’s subjective observation.

Tim Marlow, the RA’s artistic director, described the project as visionary and the resulting portraiture as “warts, pores and all”.

Lowe explained: “The dream of the Greek sculptors in the past was to create a realism that went beyond subjective interpretation. Apart from the hair, which we’re still working on, I think we’re close.”

The Veronica scanner, which uses high-resolution composite photography, or photogrammetry, pays tribute to the classical ideal. Its name is an anagram of the Latin “vera” (truth) and the Greek “icon” (image).



A 3D portrait at the Royal Academy. Photograph: Factum Arte



Designed by Manuel Franquelo at the Factum Foundation, it was originally developed for use with anti-ageing treatments, recording before-and-after shots with unprecedented accuracy. Visitors to the RA will be able to watch others being scanned, with the results being processed, printed and carved into 3D portrait busts in real time, or pose themselves.

Eight cameras capture and map the human face in rapid sequence, creating 96 high-resolution photographs from every angle, which can then be processed into a digital 3D model. It takes just four seconds to complete the recording. There are no health hazards, Lowe said: “It’s the same as having your photograph taken 96 times.”

He described most 3D technology as “incredibly disappointing” because the resolution was so low, using perhaps 150,000 polygons for a head. “We’re using three million and plan to increase it to over five million – a quantum jump that enables extreme clarity,” he said.

Visitors will receive an electronic file containing their 3D portrait. The data can then be “re-materialised as a physical bust” through 3D printers and CNC milling machines – one printing and the other carving – in a choice of materials which can include bronze, marble and wood.

Marlow said that artists had always been drawn to new technology: “Rodin used pointing machines [measuring tools],” he said. “And the myth that Vermeer was an artist who did it all absolutely freestyle is a nonsense. It’s pretty clear that he was using lenses to look at certain optical phenomena.”

Those who have tried out the 3D technology include Stephen Rubin, a lawyer in London. As a 60th birthday present from his wife, his head was reproduced in gold-plated bronze over a white alabaster toga.

“The idea of a slightly imperial presentation was tongue in cheek,” he said.

Rubin has yet to see the finished sculpture: “I’ve only seen photographs of it so far. I thought it made me look rather better than I think I look.”