

The High-Resolution Veronica Scanner Produces 3D Portraits More Realistic Than Photographs

In the days before photography, people had to go through a lot to obtain a picture of themselves. A portrait often required several sittings, and the subject was required to sit absolutely still for hours as a painter worked on capturing their likeness as accurately as possible (with sometimes unfortunate results). Even in the early days of photography, the long exposure time needed meant that subjects still needed to keep perfectly still for an uncomfortable length of time – which is why everyone looks so stiff and dour in old photographs.



Veronica Chorographic Scanner

Now, of course, it only takes a few seconds to take someone’s portrait – even in 3D. The invention of the [Shapify booth](#) means that in [a growing number of locations](#), people can simply walk up and have their entire bodies scanned in minutes to produce a 3D printable model.

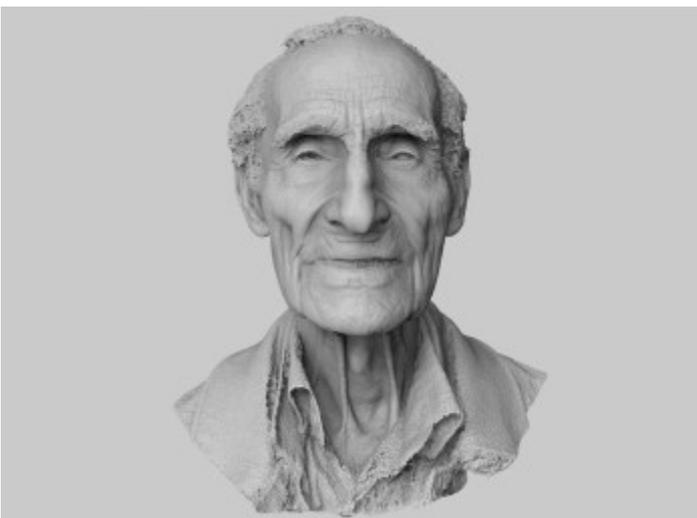
Anyone who’s gotten a 3D printed figurine from a Shapify booth knows that while it’s really cool to have a tiny 3D printed copy of yourself, it’s not quite a perfect likeness – there’s still a kind of “plastic” look to it. But a new project at the [Royal Academy of Arts](#) in London is offering people the chance to have themselves scanned for 3D portraits that are, according to the project facilitators, more realistic and accurate than photography.

The Veronica Chorographic Scanner was developed by the [Factum Foundation](#), a London- and Madrid-based organization dedicated to the digital preservation of art and culture. From September 2-11, it will be housed at the Royal Academy, where people can have themselves scanned and then watch as the scans are turned into detailed, high-resolution digital images right in front of them.



Padre Justo Gallego sits for a scan with the prototype Veronica Scanner.

The Veronica Scanner utilizes a photogrammetry process: 8 cameras take 96 photographs of a subject from every angle, in a matter of seconds. Those photographs are then “stitched” together to create a digital 3D model that captures every detail of the subject’s face, right down to the pores. The scanner’s name comes from the Latin *vera*, meaning “truth,” and the Greek *icon*, meaning “image,” and according to the Factum Foundation’s founder Adam Lowe, it’ll produce the most truthful image you’ll ever see of yourself.



Padre Justo Gallego’s finished 3D portrait

“For the first time, you get a sense of what you actually look like,” Lowe told The Guardian. “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...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 scanner was originally developed by the Factum Foundation's Manuel Franquelo as a way to take detailed "before" and "after" pictures of people who use anti-aging treatments. According to Lowe, most scanners, even the more high-end, high-resolution ones, are still "incredibly disappointing" in terms of resolution because they use somewhere around 150,000 polygons for a head scan.

"We're using three million and plan to increase it to over five million – a quantum jump that enables extreme clarity," he said.



A sterling silver cast produced from a wax 3D print still retains incredible detail.

Each day during the project, one of the scans taken in the Royal Academy's Weston Rooms will be selected at random and carved into a wooden bust by a robot, on loan from University College London's Bartlett School of Architecture. Several 3D printers from [iMakr](#) will also be creating busts, allowing visitors to watch the 3D printing process. Each participant will be sent an electronic file of their scan within a few days, and the 3D models will be uploaded to an online gallery that the public can view.

As someone who absolutely hates seeing pictures of herself and is constantly insisting "That's not what I really look like!" I'm intrigued by this project – and so are many others.

"The camera is a brutal distorter. It distorts according to the shape of the lens," said Daniel Wolf, who had his portrait taken with the Veronica Scanner. "A photograph is a flat representation of a convex image that takes the shape of the outermost part of the lens. This misrepresentation always disturbed me. Everyone knew what I looked like except me...Now, at least I know what I look like."

Unfortunately, portrait "sittings" with the scanner are already fully booked, but it's free to visit the Weston Rooms and watch as other people are scanned and their images are processed into digital models. In addition to the live 3D printing demonstrations, there will also be an exhibit of 3D photography through the ages. If you'd like to be informed about future projects and ticket bookings, you can sign up for notifications at the project page [here](#).