

CONSERVATION

REMAKING HISTORY

From Old Master paintings to Tutankhamun's tomb, artworks eroded by time and tourism are being rescued and reconstructed

COMPLETED

The facsimile of Veronese's "The Wedding at Cana", returned to the home of the original in the monastery of San Giorgio Maggiore, Venice

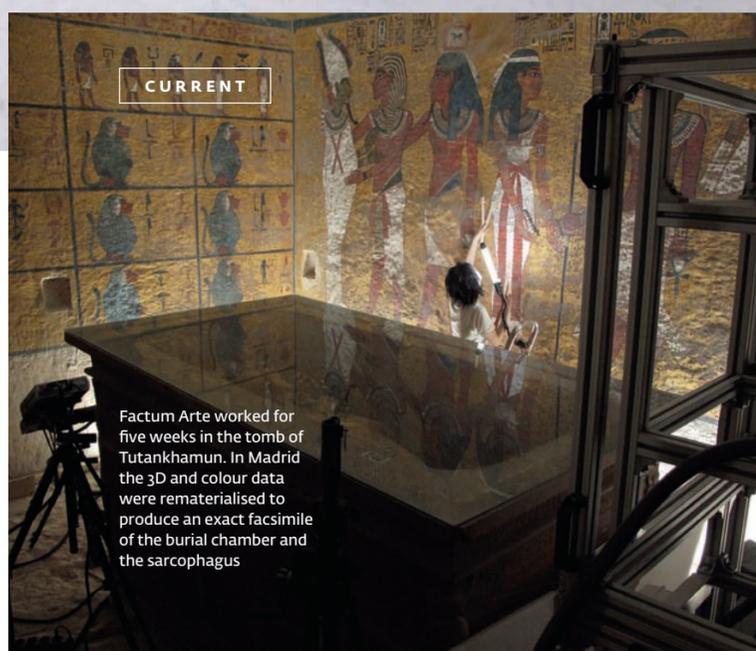
Factum Arte was founded in 2001 by the British artist Adam Lowe. Since then, he and his Madrid-based team of artists, technicians and conservators have become world leaders in digital mediation – involved in both the realisation of works for contemporary artists and the production of facsimiles of historic works of art threatened by time, erosion and global tourism. They use non-contact 3D laser scanning and digital photography to collect massive amounts of data on their subjects, which are then translated into 2D and 3D forms that replicate the original in exact surface and profile detail.

Their projects have included the facsimile of Veronese's "The Wedding at Cana", the Louvre's largest painting, which was commissioned in 1562 by the monks of San Giorgio Maggiore in Venice. It hung in Palladio's refectory there until 1797, when it was plundered by Napoleon's troops, chopped into seven bits, transported to the Louvre, and pieced back together. In the winter of 2006 the Fondazione Giorgio Cini

reached an agreement with the Louvre and Factum Arte's technicians were allowed into the museum at night to scan the painting. By November 2007 the facsimile was unveiled in Venice to rave reviews. *Corriere della Sera* called it "a turning point in art".

Since 2009 they have been involved in creating a facsimile of the tomb of Tutankhamun in Luxor, Egypt, which is now in Cairo awaiting installation in the entrance to the Valley of the Kings (beside the house of Howard Carter, the British archeologist who discovered the tomb in 1922). Work has been delayed by the current troubles. It is part of an initiative by the Factum Foundation for Digital Technology in Conservation and the Friends of the Royal Tombs of Egypt to engage with tourists and help them understand the damage that is being done – and to show them ways to preserve the past from our destructive interest.

"Even a few years ago the word 'facsimile' would fill most people with horror," Lowe says. "There would be



CURRENT

Factum Arte worked for five weeks in the tomb of Tutankhamun. In Madrid the 3D and colour data were rematerialised to produce an exact facsimile of the burial chamber and the sarcophagus



CURRENT



The church of San Petronio in the Piazza Maggiore in Bologna

Pedro Miro, head of 3D scanning at Factum Arte, uses the NUB3D triple system scanner to record the figure of San Petronio by Jacopo della Quercia above the main door of the church

Bio Factum Arte founded 2001. Projects include artworks, conservation, 3D technologies, archival editions, exhibition design.

Current projects Facsimile of Tutankhamun's tomb, Luxor; reconstruction of the Polittico Griffoni, in the church of San Petronio, Bologna.

the main door of the church in the Piazza Maggiore, he holds a model of the city in his arms.

This is just part of the ongoing documentation of sculpture and painting that is being carried out for the church of San Petronio, commissioned by the Bolognese conservation architects Roberto Terra and Guido Cavina as part of the restoration project *Felsinae Thesaurus*. In addition to the work on the façade, paintings by Giovanni da Modena (in one of the 22 chapels inside the church) have already been scanned at high resolution, a film about the designs for the unfinished façade is in production and the recording and reconstruction of the "Polittico Griffoni", the 15th-century wooden altarpiece (which was broken up in the 18th century and sold off), is being carried out in museums around the world including the National Gallery in London. All the panels will be recorded at the highest resolution possible and the entire piece reconstructed and returned to

FACTUM ARTE/REGGIORE DUPONDO; BASILICA DE SAN PETRONIO; FACTUM ARTE/PEDRO MIRO AND BIANCA MARCHIORO

questions raised about falsification and a theme-park approach to culture. This prejudice is slowly changing as people see what is possible through new recording and fabrication technologies. The facsimiles we are making are building bridges between new technologies, craft skills and a forensic interest in why things look as they do."

The images here show another current project, the recording of the three doors on the façade of the church of San Petronio in Bologna – specifically the 3D scanning and replication of the figure of Saint Petronio, the patron saint of the city, which was carved in the early 15th century by Jacopo della Quercia. One of three main figures that stand above



the Griffoni chapel inside San Petronio in Bologna.

"How works of art were looked after and protected in the past reveals how they were seen and valued," Lowe says. "The same is true about the way we care for things now. To future generations it will reveal a lot about us – assuming we have not destroyed most of the things we inherited." LJ



Above A rendered surface showing the scanned data as a coherent surface
Above left A 3D scanner records the surface of San Petronio. The green light shows which areas have been successfully recorded

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