## Art in the age of digital reproduction



Can casts and copies be an art in itself? ©Victoria and Albert Museum, London

Trajan's Column at the Victoria and Albert Museum cast courts in the late 19th century For the Victorians, facsimiles — in the form of plaster casts, photographs and electrotypes — were a way of disseminating knowledge. The cast courts at the Victoria and Albert Museum brought such artefacts as Trajan's Column to Londoners, most of whom would never have made it to Rome. Nowadays, copies are acts of preserv¬ation as well as education; the real Trajan's Column has lost detail to pollution and acid rain, while the V&A's copy remains intact.

Next year marks 150 years since the "International Convention of promoting universally Reproductions of Works of Art", drawn up by the V&A's first director, Henry Cole. A 19th-century version of today's creative commons licence, it allowed museums to make copies of each other's works. An exhibition at the Venice Biennale curated by the V&A and titled A World of Fragile Parts asks what reproductions can do, a century and a half later.

At the Applied Arts Pavilion, the ex-hibition ranges from Victorian plaster casts to works made using photogrammetry software, which creates 3D objects from photographs. A 19th-century cast of a panel from the doors of San Petronio in Bologna will be displayed next to a 3D-printed resin version of the same panel scanned by Factum Arte, a leader in digital reproduction.

Copies fell out of fashion in the 20th century, regarded as inauthentic craft objects, and museums began de-accessioning their casts. But their time has come again: new 3D scanning technologies aid the preservation of works under threat from tourism, pollution and destruction. Brendan Cormier, curator of the show, worked with Scan the World, an online library of "3D-printable" museum pieces. "Rather surreptitiously, they had already gone through the V&A and scanned 150 of our works," he laughs. "The technology has become so democratised." The British Museum has already held public "scanathons" — in effect crowdsourcing 3D models of its artefacts.

Cormier has chosen to put on show "The Other Nefertiti", a 3D-printed model of the Nefertiti bust covertly scanned at Berlin's Neues Museum by German artists Nora Al-Badri and Jan Nikolai Nelles last year. Provoking questions of cultural ownership and restit—ution, they exhibited it in Cairo and released the scan online as a torrent file.

"We need to get over the stigma of the copy," says Cormier. "We should no longer be asking, 'Should we or should we not copy?' The question is, 'What should we be copying and for what purposes?' And that inevitably brings you to political questions."



©Nora Al-Badri and Jan Nikolai Nelles 'The Other Nefertiti' (2015) by Nora Al-Badri and Jan Nikolai Nelles

The issue of copying is never more political than when the original has been damaged or destroyed by iconoclasts. In April the Institute for Digital Archaeology erected in Trafalgar Square a replica of Palmyra's Arch of Triumph, demolished by Isis last year. It was hailed by the then London mayor Boris Johnson as an arch of "technology and determination", while others argued that the focus should be on restoring Syria's existing monuments.

For those in the business of high-spec facsimiles, the problem was not its being a copy but the quality of that copy. Comparing the replica with photographs of the original arch reveals that details have been simplified and distorted. "It neither helps the understanding of the public nor the preservation of the works," says Adam Lowe, founder of Factum Arte, when I ask his opinion. "The acanthus leaves look like fish scales; the bricks look like bars of soap. No one will ever learn anything from it."

As the copy re-emerges as a valuable tool — and a form of artistic expression in its own right — the debate over its role continues.

'A World of Fragile Parts', May 28-November 27, labiennale.org Photographs: Victoria and Albert Museum, London; Nora Al-Badri and Jan Nikolai Nelles