



FOR IMMEDIATE RELEASE

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A FACSIMILE FOR THE RISCO CAÍDO A NEW ADDITION TO UNESCO'S WORLD HERITAGE LIST

Risco Caído and the Sacred Mountains of Gran Canaria Cultural Landscape, a complex of troglodyte settlements in the mountains of central Gran Canaria, [was added to UNESCO's World Heritage List on July 7th 2019.](#)

This year, Factum Arte has been working with the Cabildo de Gran Canaria on the creation of a facsimile. This aims to make the prehistoric sanctuary accessible to the general public and facilitate awareness of this important prehispanic site, which contains an early example of a solar calendar.

Carrying out a number of large-scale projects, Factum Arte has gained a reputation for the uncompromising nature of its work and an obsessive commitment to pushing the boundaries that usually separate technology and craft skills, in projects such as [the recording and facsimile of the tomb of Seti I](#), [the first facsimile of the tomb of Tutankhamun installed in the Valley of the Kings](#), or the [Polittico Griffoni in the Basilica de San Petronio in Bologna](#).

Objectives

The aim of this project was to complete a detailed photographic documentation of the internal surfaces in colour and 3D, including the inscribed solar calendar. The result will be an exact facsimile at a scale of 1:1 which will be accessible to visitors and will assist in the long term preservation of the original cave. The facsimile will be on permanent view at the new Interpretation Centre of Risco Caído and the Sacred Mountains of Gran Canaria, in the municipality of Artenara. The reproduction of the cave will be open to the public before the end of 2019.

The objective was not solely to improve accessibility and visibility of the cave of Risco Caído, but also to improve the visitor's experience so that they can learn about its first inhabitants.



Otto Lowe carrying out the recording of the Cave nº 6 at Risco Caído © Oak Taylor Smith for Factum Arte

Techniques

Following a public competition, Factum Arte began the recording of Cave nº 6 at Risco Caído. The recording was done using several non-invasive techniques to document the colour, dimensions and surface of the cave. First, a complete scan of the cave was done using a terrestrial laser measuring system called LiDAR. This system allows Factum to measure points of the geometry of the surface very precisely and to generate the shape of the interior of the cave at a scale of 1:1. This model serves as a foundation of the digitisation.

Following the LiDAR scan, the solar calendar was recorded at high resolution using photogrammetry. This technique generates a 3D model by extracting identified features from 2D images. More than 2.500 high-resolution images were captured and processed using RealityCapture software. The colour recording of the cave was done using a panoramic system, acquiring a resolution of 800dpi. Lighting was carefully controlled so as to be completely uniform and colour correction was calibrated using an X-Rite ColorChecker Passport.

The next part of the process consisted of the materialisation and construction of the facsimile. Through computer-controlled routing machines, the entire surface of the cave was rematerialised and assembled by a team of expert craftsmen and restorers. The final facsimile will be installed in the Centro de Interpretación de Artenara and will be indistinguishable from the original to the naked eye.



The rematerialisation of the Cave nº 6 of Risco Caído at Factum Arte's workshops in Madrid © Oak Taylor Smith para Factum Arte

Notes to editors

Based in Madrid, London and Milan, Factum Arte consists of a team of artists, technicians and conservators dedicated to digital mediation - both in the production of works for contemporary artists and in the production of facsimiles as part of a coherent approach to preservation and dissemination.

Since its creation in 2001, Factum Arte's bespoke equipment has been designed and software has been written to obtain optimum results in both recording and outputting digital information. Factum's non-contact technologies are having a growing impact on the world of conservation and are defining the role facsimiles play in the protection of our cultural heritage.

Over the past few years, Factum Arte has worked with The Musée du Louvre, The British Museum, Museo del Prado, the Victoria and Albert Museum, Biblioteca Nacional Madrid, the Fondazione Giorgio Cini, the Supreme Council of Antiquities in Egypt and many other museums, institutions and private individuals.

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