



Gorffennol Digidol Digital Past - 2021

REMAKING THE PAST

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We will outline the detailed method of reconstruction which used laser scanning and photogrammetry to produce precise geometric replication combined with high-resolution textures. This enabled a 1:1 cultural heritage replica, fabricated through 3D printing to a steel structure with chemical reinforcement and integrating colour replication through colour calibration, pigment analysis, management of light conditions and painting techniques. This use of these digital technologies aided issues around the repatriation of a cultural heritage asset and allowed for an exhibition of accurately replicated grottoes.

Biography

Changyu Diao and Zhirong Li are both the vice deans of the Cultural Heritage Institute of Zhejiang University, China. They lead a digital research and application team together for 10 years. They have engaged in cultural heritage digitization research, including 3D digitization, information management, information processing and analysis, virtual exhibition, digital museum, 3D printing, etc. Some of the research achievements represent the highest level of the related areas in China, which have been successfully applied to many sites and museums.