



Gorffennol Digidol Digital Past - 2021

THE VIRTUAL PILGRIM

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For centuries, the city of Jerusalem has been a centre for social and spiritual experiences of diverse communities separated from their homes and cultures.

In this project, the crusaders notion of a 'New Jerusalem', the physical reconstruction of the holy city of Jerusalem in Europe, has been reversed and implemented via virtual reality

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Mae'r ddogfen hon hefyd ar gael yn y Gymraeg | This document is also available in Welsh.

technologies applied to two communities who emigrated to Jerusalem from overseas and reconstructed their home and places of worship.

The aim here is to gauge to what extent digital technology can bridge the gap between the physical and the emotional. To express and enhance the dialectical relationship between diverse geographical locations, manifested through lost and reborn communities, the old and the New Jerusalem.



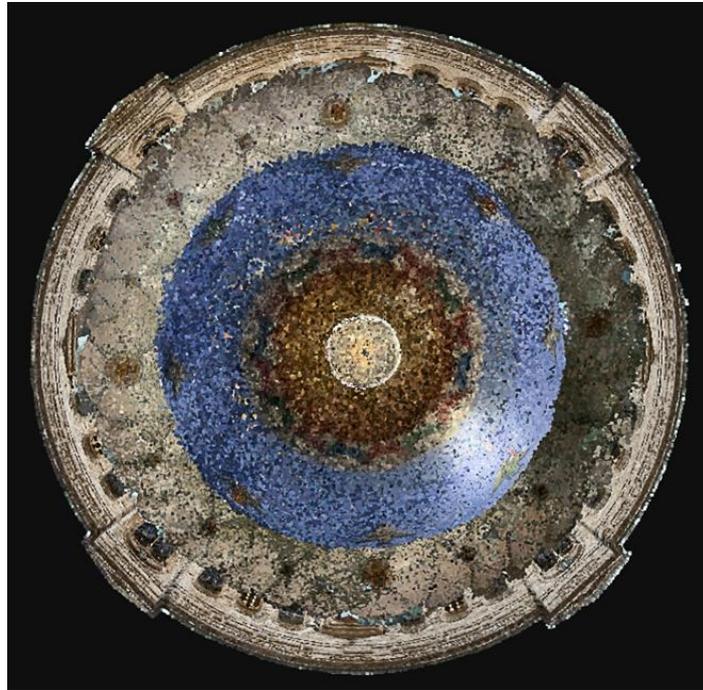
Two test cases are explored: The reconstructed Synagogue of the lost community of Conegliano Veneto, Italy, and the Kidane Mehret Ethiopian Church. Both located today in Jerusalem.

Using laser scanning and photogrammetry, the two structures are recreated as 3D point clouds, enhanced by sounds of prayer and blended with historical imagery. We attempt to create an emotional experience, transcending time and space and intensifying the complex experience of life in a home away from home.

The Virtual Pilgrim attempts to offer a personal encounter, which transcends the objectivity of technology and elevates the subject into a personal spiritual voyage, a virtual pilgrimage.

Two integral components contribute towards this: The virtual reality headset and the point cloud audio-visual experience. These aim to create a voyage, where one may wander at will and experience the atmosphere of a twilight zone, bound neither by space nor time.

The paper outlines the considerations, limitations, and solutions undertaken in the digital recreation of the structures. Likewise, it explores the process of fusing the technical challenge with the desired emotional impact on the user.



Biography

Graduate of the Hebrew University Jerusalem (1977), the Harrow College of Technology & Art London (1980), and Coventry Polytechnic (1989).

Caine's work mirrors the evolution of visual media, including photography, interactive multimedia, VR/AR, multispectral, photogrammetry, 3D scanning, RTI, DAM, UI, UX.

One of the pioneers of the multimedia industry in Israel, establishing and running the Icons company in Jerusalem (1989-2009).

Engaged in academia since 1981.

For the past 25 years Prof. Caine has specialized in digital solutions for cultural heritage preservation institutions, Archaeology, conservation, restoration and presentation. He has a long experience working with museums and educational institutions.