

Project Title: 3D Models and Virtual Worlds in Cultural Heritage: An Ethnographic Approach to Producer and User Needs and Experience

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Project Proposal

Introduction: Three-dimensional models and reconstructions have been used in the last thirty years across many fields in the humanities and social sciences to bridge time and space; to become immersed in the past through virtual worlds; to explore physical artefacts from multiple angles; to allow interactive close-ups and see features not visible with the naked eye; and to analyse sociocultural phenomena and simulate the experience and perception of objects and spaces. Despite this plethora of research, we lack an understanding of how these 3D spatial and temporal representations are used and/or produced by researchers, teachers, students, and the public. As a result, the infrastructures developed for 3D scholarship do not account for the needs of the community that produces and uses three-dimensional visualisations. This research, which will be associated with PURE3D which is developing an infrastructure for the publication and preservation of 3D scholarship, will shed new light to the uses, meaning, and significance of 3D scholarship as well as the experiences of various stakeholders in creating, sharing, and analysing 3D virtual models and environments. It will do so by designing a large-scale ethnographic study that will provide for the first time the means to evaluate the production and consumption of 3D scholarship.

Objectives

To explore how 3D models and virtual worlds of cultural heritage are produced and used by different stakeholders, including researchers, teachers, students, and the public.

To develop an ethnographic approach to capture the needs, experiences, and requirements of producers and users of 3D scholarship.

Setting and Methods

This research will take place at the Faculty of Arts and Sciences at Maastricht University.

Candidates will deploy a(n) (virtual) ethnographic approach by designing different quantitative and qualitative means and feedback mechanisms to respond to the research question. As this is a large-scale study that involves different stakeholders and community input, the chosen case studies should be representative of 3D scholarship in different parts of the world. These will be decided in discussion with the supervisors.

Impact: This research will, for the first time in over 30 years of 3D scholarship in cultural heritage, reveal the role, uses, and meanings of 3D models and virtual worlds by exploring stakeholders' needs and experiences. This research will feed into the development of PURE3D, the first infrastructure for 3D scholarly editions that is built according to producer and user needs and experiences.

Techniques to be Used: ethnography, virtual ethnography, mixed methods, questionnaires, qualitative interviewing, observation

Requirements Candidate: MA in heritage, anthropology, archaeology, history, digital humanities and related fields.

Priority Area: Humanities and Social Sciences

Keywords: 3D scholarship, virtual worlds, 3D scholarly editions, user experience, user requirements

Selected Publications

Schreibman, S., and Papadopoulos, C. (2019). Textuality in 3D: three-dimensional (re)constructions as digital scholarly editions. *International Journal in Digital Humanities* 1, 221–233. <https://doi.org/10.1007/s42803-019-00024-6> (1544 downloads since May 2019)

Papadopoulos, C. and Schreibman, S. (2019). Towards 3D Scholarly Editions: The Battle of Mount Street Bridge (2019). *Digital Humanities Quarterly* 13 (1). <http://www.digitalhumanities.org/dhq/vol/13/1/000415/000415.html>

Papadopoulos, C., Hamilakis, Y., Kyparissi-Apostolika, N., & Díaz-Guardamino, M. (2019). Digital Sensoriality: The Neolithic Figurines from Koutroulou Magoula, Greece. *Cambridge Archaeological Journal*. <https://doi.org/10.1017/S0959774319000271> (ScImago Journal and Country Rank: h-index 47).

Schreibman, S., Siemens, R. and Unsworth, J. Eds (2004/2016). *A Companion/A New Companion to Digital Humanities*. Oxford: Blackwell. (913 Citations).