DELIVERABLE

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D5.5 Three Documented 3D/VR Case Studies

Revision: Final

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P	**Public**	X
C	**Confidential, only for members of the consortium and the Commission Services**	

Revision History

Revision	Date	Author	Organisation	Description
0.1	3/8/12	E Mascii	SNS	Pompeii case study
0.2	16/8/12	A Sanchez, A Martinez	CAAI	Iberian case study
0.3	27/09/12	S Bassett	MDR	First draft of introduction
0.4	27/9/12	E Mascii, A Sanchez, A Martinex	SNS, CAAI	Edited case studies following review comments.
0.5	6/10/12	J Mallia	HM	Heritage Malta case study
0.6	8/10/12	S Bassett	MDR	Addition of abstracts, executive summary and references – final draft
0.7	10/10/12	S Bassett	MDR	Final amendments for release.

Executive Summary

This deliverable comprises three Case Studies describing the preparation of 3D content by partners in the CARARE Project for provision to Europeana and its end-users. The deliverable is presented as a portfolio of documents comprising of this executive summary, the three case studies and four examples of 3D-PDFs. This approach allows each Case Study to be published separately on the CARARE project website in an easily readable format for members of the best practice network

Each Case Study consists of:

An abstract and keywords

A short introduction

Description of the collections

Description of the process

Mapping

Conclusions

Acknowledgements

References

The Case Studies describe the content of the 3D models, the processes used and the challenges faced by each organisation in creating 3D documents suitable for online publication from the original 3D formats.

All of the Case Studies make use of the extensive work carried out in Work Package 5 which has been documented in two principle public deliverables:

- [D5.1 Functional specification of requirements for preparing 3D/VR for Europeana](#) - Daniel Pletinckx (Visual Dimension bvba) and David Haskiya (EDLF)

- [D5.4 3D/VR Training materials](#) - Daniel Pletinckx (Visual Dimension bvba) and Paola Ronzino (STARC).

CARARE Project partners who are providing 3D content have also benefitted from a number of training workshops run during Project Meetings and CARARE events which have demonstrated the necessary technologies and processes required to convert their existing 3D models into 3D-PDF. As the work has progressed, the later workshops, such as the one held at the International Conference in Mykonos in May, have focussed on implementing solutions to specific issues that have arisen during the conversion process and the publication of the 3D-PDFs. CARARE has worked closely with Europeana in developing the necessary metadata mappings and end user interface. Some further examples of 3D PDF documents can also be downloaded from the CARARE website at: http://www.carare.eu/eng/Resources/3D-Virtual-Reality.

Case Study 1: The Iberians in Europeana

The Andalusian Centre for Iberian Archaeology (CAAI) is a member of CARARE as a content provider. This case study focuses on the contribution of 2D and 3D contents related to the archaeological remains of the culture of the Iberians. CAAI has access to two large digital collections, one containing over two thousand cultural resources which include several 3D models which incorporate the CAAI's latest interventions in the cemetery of Piquías (Arjona, Jaén) and metal items recorded in the recent surveys of the battle of Baecula (2nd Punic War) (Santo Tomé, Jaén). The other collection is of ceramics, mostly Iberian, built up between 2006 and 2010 under the research project CATA (*Archaeological wheel ceramics in Andalusia*), funded by the Regional Government. Two 3D PDF documents as supplied to Europeana are provided as examples with the CAAI Case Study: CAAI 3D-PDF-AL_03A.pdf and CAAI 3D-PDF-AL_08A.pdf which are both of ceramics.

Case Study 2: The Civil Forum of Pompeii

The Civil Forum of Pompeii, is based upon the SNS collection of 3D models which is composed of thirteen models of complex architectural structures and 322 smaller finds, covering an area of approximately 150x80 m corresponding to the area of the Forum of Pompeii. The 3D models are the result of a multi-resolution survey of the Pompeii Civil Forum, carried out in 2008 by a staff of the Politecnico of Milan with the objective of documenting the present status of the buildings, hence mainly for documentation and conservation purposes. Links are provided to each of the 3D models documented in the SNS Case Study.

Case Study 3: The Prehistory of Malta's Cultural Heritage

Case Study 3 focuses upon a number of 3D models of megalithic temples which are World Heritage listed sites created by the national agency, Heritage Malta. These are large, complex structures and one in particular, the Hal Saflieni Hypogeum, posed specific problems as this is underground and therefore has more physical restrictions than a surface level structure to be addressed. With the assistance of experts from the University of Malta and Daniel Pletinckx of Visual Dimension, a CARARE 3D Technology provider, Heritage Malta is working on taking large complex 3D models and creating 3D-PDFs which require several magnitudes of size reduction in order to be accessible to the general public. Two examples of 3D-PDF documents created through CARARE are supplied with the deliverable - HM 3D-PDF-Venus of Malta.pdf which is a 3D model of a terracotta figurine discovered at the Hagar Qim Temples in Qrendi, Malta and HM 3D-PDF-Tarxien Temples Earliest Remains.pdf, which contains a model of the temple.

Conclusions

The three Case Studies demonstrate the wide variety of 3D models that exist as cultural heritage documentation and for research purposes and the challenges that face the contributing organisations in transforming the models into 3D PDF, the preferred end user format for Europeana. Despite the challenges, the commitment to providing 3D content to the general public through Europeana remains strong.

References

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