



### 4.3 SNS National Workshop at VSMM, Milan Report

#### Introduction

The Italian National Dissemination Workshop was organised by Scuola Normale Superiore of Pisa (SNS) at the VSMM Conference held in Milan on Wednesday 5<sup>th</sup> September. As one of the main providers of 3D PDF Models to Europeana, the workshop focussed on this aspect of metadata and content provision.

#### About VSMM



The International Conference on Virtual Systems and Multimedia (VSMM) is the premier forum for the presentation of research on 3D acquisition, multimedia visualization, interaction technologies and their applications. Known for its multidisciplinary approach, VSMM has become a bridge between technology, art, history, science and engineering. The conference has been held annually since 1995 (with the exception of 2011 when the Egyptian conference was cancelled for public safety reasons), VSMM 2012 was the 18th gathering of the VSMM Society and was hosted by the Politecnico di Milano (PoliMi). The papers presented are fairly technical in content and the proceedings are published in the IEEEExplore digital library (<http://ieeexplore.ieee.org>).

The 2012 event focused upon virtual systems and multimedia with two themes oriented to technological developments (3D Content Development and Visualization & Interaction), and two themes to application-oriented research (Cultural Heritage and VSMM, Art, & Society). Archaeology and historical cultural heritage was very well represented along with 3D and immersive environments for a wide variety of other applications such as human behaviour and geographic. The participants (both presenters of papers and attendees) came from academia and research institutions, cultural heritage organisations and commercial archaeology and 3D technology companies. They were mainly professionals with some students attending as well.

For further information see <http://www.vsmm2012.org/>.

#### Marketing the Workshop

The 2012 VSMM Conference is attended by several hundred people with an interest in 3D and multimedia. With the cultural heritage theme, it was considered to have an ideal target audience with many of the participants from national institutions and research organisations involved in archaeology and use of 3D modeling. VSMM had its own conference website which listed the CARARE workshop:

**Italian National Workshop of the EU project CARARE**  
**Connecting ARchaeology and ARchitecture in Europeana**

CARARE Workshop at VSMM2012  
11:30 - 13:00, Sept 5, 2012, room BL-27.0.4, Politecnico di Milano

**Description:**

CARARE is a Best Practice Network, funded under the European Commission's ICT Policy Support Programme, which started on 1 February 2010 and will run for three years. It is designed to involve and support Europe's network of heritage agencies and organisations, archaeological museums and research institutions and specialist digital archives in:

- making the digital content for the archaeology and architectural heritage that they hold available through Europeana,
- aggregating content and delivering services,
- and enabling access to 3D and Virtual Reality content through Europeana.

[For further information click here](#)

*The CARARE Workshop as shown on the VSMM Conference website*

In addition, the Workshop was listed on the CARARE website and the Workshops have been featured on the CARARE Newsletter. SNS also contributed in communicating the Workshop by sending invitations by e-mail to researchers, scholars and professionals in the IT sector that could be interested in the Workshop.

## **The Programme**

The programme consisted of the following presentations with question and answers sessions taken after each one.

### **Programme: September 5, 11.30 - 13.00 Chair: Kate Fernie**

- Kate Fernie, Sheena Bassett "CARARE: archaeological content and 3D models for Europeana".
- Daniel Pletinckx "3D for the Layman. Issues and Perspectives"
- Sorin Hermon, Franco Niccolucci, Paola Ronzino "3D data online - sharing knowledge on a 3D archaeological workflow: the case study of the Greek-Roman theatre at Pafos, Cyprus".
- Maria Emilia Masci, Sebastiano Ercoli "The Pompeii Civil Forum 3D model. Survey, modeling, metadata creation, integration and publishing through CARARE".

The complete programme as available for download on the VSMM website and handed out on the day is shown overleaf.



CARARE Workshop

VSMM2012

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## Italian National Workshop of the EU project CARARE Connecting ARchaeology and ARchitecture in Europeana

### Abstract:

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CARARE is one of a suite of projects, funded by the European Commission, to help further develop Europeana. It will play an important role in involving Europe's network of organisations responsible for investigating, protecting, informing and promoting unique archaeological monuments, architecturally important buildings, historic town centres and industrial monuments of World, European and National heritage importance alongside the existing national, regional and local content providers. Such involvement will not only bring together a rich diversity of content about the archaeology and architectural heritage but also adds 3D and Virtual Reality content to Europeana. CARARE aims to enable 2D and 3D content for heritage places to be brought together in Europeana and new services for users.

Website: [www.carare.eu](http://www.carare.eu)

CARARE Workshop

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## The Presentations

### CARARE: archaeological content and 3D models for Europeana



Kate Fernie chaired the Workshop and introduced the CARARE Project, explaining what Europeana was and how CARARE provided metadata for digital content related to archaeology and architecture. She then talked about 3D models and the Europeana requirements, i.e. to be viewable by any end user on common PC platforms without the need for plug-ins or specialist software.



### 3D for the Layman. Issues and Perspectives

Daniel Pletinckx of VisDim introduced the technical aspects of 3D modelling and explained why 3D PDF had been chosen as the preferred end format for CARARE content. This is because it is the only format at present that is well established, multi-platform and can handle a wide variety of original formats for conversion into 3D PDF. Text also provides a content for the models. He then demonstrated some of the models prepared for CARARE and illustrated the built-in features of 3D-PDF such as links to specific parts of the models, different views and ways to navigate the model.



### **The Case Study of the Greek-Roman Theatre at Pafos, Cyprus**

Paola Ronzino who was going to present this case study was unable to attend the Conference due to illness. Fortunately, Daniel Pletinckx was very familiar with this as he had advised STARC on how to create the 3D-PDFs so he was able to stand in and give this talk, on the basis of the PPT that he received from Paola and her co-authors. The Pafos (Paphos) Greek-Roman Theatre case study describes the methodology adopted by STARC for the publication on the web and harvesting by Europeana of the virtual reconstruction of the Hellenistic-Roman Theatre of Pafos (Cyprus). The information and digital resources (pictures, 3D models, maps, texts) used for the virtual reconstruction of the different phases of the Pafos Theatre are documented through the STARC metadata schema, which relies on the LIDO and CARARE schemas and are all made available in Europeana. The link from Europeana goes to a dedicated website where the user can view the Theatre in a variety of ways: through photographic images, as a 3D model via Google Earth (geo-location), as an architectural layout, as photorealistic images, 3D rendered models and interactive 3D models, video and augmented reality.

### **The Pompeii Civil Forum 3D model. Survey, modeling, metadata creation, integration and publishing through CARARE**



Maria Emilia Masci (SNS) and Sebastiano Ercoli (PoliMi) presented the work carried out by SNS in collaboration with PoliMi on the 3D models of the Civil Forum at Pompeii that they realized for the Superintendency of Pompeii in 1999.

The presentation illustrated the main features of the pre-existing 3D complex model, composed by many smaller 3D models, each illustrating a building and its smaller architectural parts. This model was realized mainly for scientific purposes and for conservation.

With the CARARE project it was decided to re-use the 3D model for a broader public and to publish it on the web. The presentation explained in detail how the 3D model was prepared for the ingestion into 3D PDF documents, how texts and images to be included into the 3D PDF were selected, and the whole process which led to the creation of 3D PDF documents was described.

Moreover, the presentation also explained the workflow which led to the publication of such content on Europeana through CARARE, starting from the publication of the PDF documents on the website of the Pompeii project (<http://pompei.sns.it>), following with the mapping of metadata according to the CARARE metadata schema using MINT, until the publication of metadata on MORE (the CARARE metadata repository) and ending with the harvesting from Europeana portal.