

October 01-02, 2018
London, UK

Giuseppe Nicastro, Glob J Res Rev 2018, Volume 5
DOI: 10.21767/2393-8854-C1-003

ARCHAEOLOGICAL SURVEY AND DIGITAL REPRESENTATION: AN INTERACTIVE PLATFORM FOR THE DISSEMINATION OF THE PROJECT BARATTI IN 3D

Giuseppe Nicastro

University of Florence, Italy

The scientific research in the field of surveying and digital representation has now consolidated methodologies that have seen an ever-increasing hybridization with new languages: a more advanced use of 3D to describe an environment has forced us to look more closely at those experiences of digital visual storytelling, such as cinema and videogames, which have long used this multimedia languages. At the same time, the massive diffusion of mobile devices as well as their technological development, gave us the opportunity of reaching an increasing number of users who are confronting today with these technologies. So, the virtual reconstruction, based on the data collected during the surveying campaigns, offers the possibility to make interactive simulations and thematic readings of an archaeological site, allowing us to give shape to interpretative and reconstructive hypotheses: the digital reconstructions allow us to display complex information in a more complete visual way to create a communication channel aimed at a wide and diversified audience of users. From these methodological premises the Baratti in 3D digital platform is born, designed to store and display in an interactive way the results of research conducted on the site of Populonia (Piombino – Italy) in recent years. From this point of view, the data collected during the survey become a precious archive to develop an advanced digital reconstruction of this archaeological site. The Baratti in 3D platform offers an interactive environment built using real-time rendering technologies: unlike static rendering engines, dynamic rendering engines allow to program freely explorable 3D environments equipped with dynamic lighting systems, management of physics in real time and the possibility of adapting the user control systems to different types of devices (laptops, smartphone, tablet, etc.).

Recent Publications

1. Nicastro G. (2018), *Defensive towers in south-eastern Sicily: digital survey for knowledge and development of the architectures still visible*, in proceedings of the International Conference on Modern Age Fortifications of the Mediterranean Coast – Fortmed 2018
2. Nicastro G. (2018), *The Piazza di San Pier Maggiore: from the environmental survey to the environmental visualization*, in Puma P. (editors), Firenze, la trasformazione del centro antico. Edifir
3. Nicastro G. (2016), *The ancient city walls of Florence: from survey to proposal for tourist development of the urban heritage*, in The Book of Tourism Vs Heritage, proceedings of the International Conference Tourism Vs Heritage - ICTH 2016.
4. Nicastro G. (2016), *Digital Survey and Virtual Heritage: the Castellum Aquarum of Poggio Murelle in Manciano (Gr)*, in proceedings of the International Conference UID 2016.

Biography

Giuseppe Nicastro took master's degree in Architecture at the University of Florence - DIDA, Department of Architecture, discussing the thesis Digital Survey and Virtual Heritage: the Castellum Aquarum of Poggio Murelle in Manciano (Gr). From 2016 he is PHD student in Survey and representation of Architecture and environment at the University of Florence: he is mainly interested in digital survey technologies (Laser Scanner, Structure from Motion, UAV) and 3D applied to cultural heritage.

giuseppe.nicastro@unifi.it