Baratti in 3D project: the Etruscan Necropolis of Populonia enviroments, tumbs, finds in virtual heritage

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Agenda Day 1: October 01, 2018
Armstrong

08:30-09:30 **Registrations**

09:30-10:00 Opening Ceremony

Keynote Forum

10:00-10:40
Title: Travelling in the subsoil to reveal an almost unknown society: the case of Mont'e Prama (Sardinia, Italy)

Gaetano Ranieri, University of Cagliari, Italy

10:40-11:20
Title: Baratti in 3D project: the Etruscan Necropolis of Populonia environment, tumbs, finds in virtual heritage

Paola Puma, University of Florence, Italy

Networking and Refreshments 11:20-11:40 @ Foyer

Session Introduction

Sessions: Methods for Archaeological Investigation | Museums, Heritage and conservation |Analyzing Sociocultural Systems | Archaeology by Period | Applied Anthropology | Artefacts

Session Chair: Paola Puma, University of Florence, Italy

11:40-12:10
Title: The ethnological approach to health items: A contribution to archaeological research on African health thought

Abé N'Doumy Noël, Alassane Ouattara University, Côte d'Ivoire

12:10-12:40
Title: The version of the stirrup-vase destination

Pavel Petrovich Brazhnikov, Scientific Academy for Research of Social and Psychological Systems, Russia

12:40-13:10
Title: Where azimuth has a bearing? rapid azimuth and relative-position surveys in archaeoastronomy

David Goodwin, University of Otago, New Zealand

Group Photo @ 13:10-13:20

Lunch Break 13:20-14:20 @ Hotel Restaurants

14:20-14:50
Title: Reconstructing the evidence for reflection in fieldwork and group work

Khalfani Mwamba, University of Washington, USA

14:50-15:20
Title: Long-lived frustrated states in social network dynamics

Leila Hedayatifar, New England Complex Systems Institute, USA

15:20-15:50
Tittle : Artefacts: from objects to concepts and to cultural property

Maria Kostoglou, SOAS University of London, UK

15:50-16:20
Title: The imparative of repositioning Nigeria's development initiative through, agric, the neglected path

Charles Onuora Okwuwa, Ibrahim Badamasi Babangida University, Nigeria

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BARATTI IN 3D PROJECT: THE ETRUSCAN NECROPOLIS OF POPULONIA ENVIRONMENT, TUMBS, FINDS IN VIRTUAL HERITAGE

Paola Puma

University of Florence, Italy

Framework of the research: The current potentialities of virtual archaeology allow the general public, archaeologists and museum curators to well understand the contexts and somehow retrieve, with modern technologies and languages, the "restoration of archaeology" and the highly imaginative aspect of the reconstructive representation interrupted at the end of the 19th century. Moreover, this kind of promotion of archaeology in all categories of citizens together with the renewal of approaches and languages are the crucial key to attaining cognitive and emotional knowledge through active educational activities.

Subject: Populonia was for centuries a major iron production centre, favoured by its proximity to the sea - being the only Etruscan city with this peculiarity - and by its position in front of the Tuscan archipelago, at the junction of important Mediterranean trade routes. The artifacts investigated in the BARATTI IN 3D PROJECT are the Monumental Necropolis of San Cerbone – extending inland at sea level from the Gulf of Baratti - and several finds excavated from its "tombs of princes" (all the finds are exhibited in the Archaeological Museum of Populonia and in the National Archaeological Museum of Florence).

Methodology: This paper addresses some results of the project, intended to document the tombs and finds in light of their subsequent virtual relocation in order to show, in its entirety, their provenance context. The methodology of the study was constituted by the chain of "data metrical survey - 2D and 3D representation - communication" applied in two different sets of techniques on the tombs and the finds.

Results: The necropolis consists of approximately 200 remains, of which we have investigated the 30 most important tombs and two sets of their grave goods; the remains have been measured, described in their morphology, size, geometry, material nature and represented in 2D drawings and metrically reliable 3D

models; finally, the "match" allowed us to virtually "reproduce" their provenance context.

Conclusions: In addition to digital models, as a physical fallout of this research, a permanent exhibition in the Archaeological Museum of Populonia has been realized, applying electronic engineering to three replicas of the finds, making an innovative approach to the knowledge of archaeology visible and allowing a subsequent rapid expansion of this museum's audience.

Recent Publications

1. Puma P (2018) Sperimentazioni di didattica museale per l'attivazione di processi educativi evoluti nel programma Digital Cultural Heritage- DigitCH. In Luigini A, Panciroli C (eds.), Ambienti digitali per l'educazione all'arte e al patrimonio. FrancoAngeli, Milano.

2. Puma P. (2017) Dal Rilievo al 3D: la rappresentazione del patrimonio archeologico nel progetto "Un museo in tutti i sensi", From survey to 3D: the representation of the archaeological heritage in the project "A museum in every sense". In Territori e frontiere della ricerca/ Territories and frontiers of Research, Gangemi, Roma.

3. Puma P. (2017) Tourism and heritage: integrated models of surveys for the multi-scale knowledge and dissemination of the historical towns, the architecture, the archaeology. In: The book of heritage VS tourism, an international point of view, Universidade Lusiana, Lisbona.

4. Puma P. (2016) Surveying and communicating for the virtual archaeological exhibitions: 3D low cost modeling of finds from the tomb of a Faliscan princess, the project "The Faliscan princess's grave goods in 3D". In: Le ragioni del disegno, the reasons of drawing Pensiero,

forma e modello nella gestione della complessità Thought, shape and model in the complexity management, Gangemi.

5. Puma P. (2016). The Digital Cultural Heritage- DigitCH programme: experiences of documentation and survey for the smart fruition of archaeological heritage. SCIRES-IT 6: 151-164.

Biography

Paola Puma has completed her MA in Architecture, her PhD in Survey and representation of Architecture and environment and postdoctoral studies in the same field from University of Florence; from 2015 is Associate professor at the Department of Architecture of Florence. She is the coordinator of the research group Digital Cultural Heritage- DigitCH, active in the field of survey and representation of architecture and archaeology. She has published more than 100 books and papers in reputed journals and is serving as an editorial board member of reputed journals. Carries out teaching and research in Bachelors degree of Architecture and the Master degree of Architecture, the Master degree of Primary Teacher Education, the PhD School in "Survey and representation of the built environment".

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