Digital techniques for Etruscan Graves: the Etruscanning Project

A. Adami 1, R. Cariani 1, I. van Kampen², E. Pietroni 1, M. Sannibale 3
1 VHLAB, ITABC, Roma, Italy
2 Museo dell’Agro Veientano, Italy
3 Musei Vaticani, Città del Vaticano

Abstract
Etruscanning is a project founded by the European Commission and it focuses on the investigation of new digitization and presentation techniques, in order to re-create the original context of the Etruscan graves. Several digital techniques have been applied for the stages of digitization, virtual restoration and reconstruction and communication. The possibility of working on two different tombs allows us to deep two specific approaches and to diversify the final real-time applications. This project represents an interesting opportunity to create a concrete link between research and communication in the field of virtual museums, testing the effective impact in terms of cultural transmission, learning and appreciation both in non-linear narrative plots conception and in novel metaphors of interaction. From a technological point of view the most innovative result of the project is the implementation of natural interaction interfaces, allowing the public to move and interact with objects inside the virtual environment.

Categories and Subject Descriptors (according to ACM CCS): J.2 [Physical sciences and engineering]: Archaeology

1. Introduction and goals

Etruscanning 3D is a two years project founded by the European Commission in 2011 within the Culture 2007 framework, it focuses on the investigation of new digitization and presentation techniques, in order to re-create the original context of the Etruscan graves (in particular the Regolini Galassi tomb in Cerveteri and the tomb 5.5 of Monte Michele in Veii). The consortium involves museums and research organizations from 3 European countries cooperating in digital acquisition, digital restoration, 3D reconstructions and final communication of Etruscan graves and collections through innovative VR systems. The possibility to collaborate directly with Museums represents a fantastic opportunity to create a concrete link between research and communication in the field of virtual museums, testing the effective impact in terms of cultural transmission, learning and appreciation both in non-linear narrative plots conception and in novel metaphors of interaction. From a technological point of view the most innovative result of the project is the implementation of natural interaction interfaces, allowing the public to move and interact with objects inside the virtual environment.

Figure 1: VR installation with natural interaction interface

Regolini Galassi tomb, located in Sorbo necropolis in Cerveteri, and the Monte Michele tomb in Veii (Figure 2), are both graves belonging to very important personages – princess and warrior, dated at the half of the VII century BC and showing the orientalising influence in the style of...