

SHAPE Lab Seminar

Tuesday, October 24, 2000

Jointly organized by Computer Science and Engineering
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Room 190, Engineering Building (Barus & Holey; new extension)

Virtual Archaeology-Visual Archaeology: Digital Perspectives & Cognitive Approaches

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Abstract

In archaeological research, one analyses primarily contexts, that is physical setting, location, and cultural association of sites, artifacts and features within an environment/ecosystem. The knowledge of the connections of these micro and macro contexts is fundamental for reconstructing the archaeological information. As a result, in a post-process methodological phase, the concept of Virtual Archaeology was initiated; but what is effectively Virtual Archaeology (VA)? and what is virtual? We think of VA as a process of 3D modeling of information that becomes, in synthesis, visual information. This type of visual information permits us to remodel and amplify the visible field.

The need to catalog and archive increasing quantities of archaeological information introduces computer applications as a methodology that has been completely integrated in archaeological research, so much so that we speak commonly of *computational archaeology*. Therefore the possibility to virtually reproduce the entire exploration phase, or part of it and its relevant archaeological pattern-model, becomes the cognitive tool, “par excellence”, which allows us to ask and respond to the question: how much and what do we reconstruct?

The value of a virtual model is represented by its *cognitive interaction*, a rule also valid for reconstructions of archaeological contexts. The epistemological aspect is key in the assessment of computational processes and accordingly, in archaeological activity.

In this talk many case studies and applications will be presented concerning processes and interfaces of acquisition data, interaction, interpretation and of visual communication in archaeology.

Key words: virtual archaeology, 3D, interaction, visual, archeological theory.

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