

**Which infrastructure support for visual data creation, archiving and visualization?**

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Abstract:

Visual data are nowadays a basic component of the massive data gathered in archaeology. With the term *visual data* we mean any *visual representation* that could be associated to an artwork, architecture or site, to describe its shape in terms of visual and geometric elements. Therefore, different representations are included: 2D images (standard images, panoramic images, Reflection Transformation Images - RTI), 2D graphical representations such as maps or drawings (usually represented by standard digital image files), 3D models (either sampled or reconstructed with modelling systems) or finally videos (grabbed from reality or computer animations).

In the framework of the ARIADNE project, we are focusing on the services that an infrastructure for archaeological documentation should provide for managing these media. Our first goal is to present to users the capabilities of current technology (both commercial tools and resources produced in few recent EU projects) and to understand how to map the real needs of the user community on existing technologies and potential services for production, sharing and visualization.

*Training* is an important component of an infrastructure project, due to the many media available and the complexity of both mastering data creation/presentation and of understanding which media fits better the specific documentation or visual analysis needs. Our purpose will be to help our community in building a clear view of the affordances of particular genres of representations, clarifying their documentation potential and the possible limitations wrt. storing, discovery, accessing, connecting with other data, and rendering. Designing an infrastructure requires also focusing on *configuration* and/or *development* (e.g. customization to user needs of open source solutions and of academic prototypes developed by EU projects).

Obviously, visual data cannot be treated isolated from the other data. Integration should be designed to allow advanced visual data creation and visualization to inter-operate with standard databases and repositories.