SUMMARY AND CONCLUDING REMARKS

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The question as old as the conservation of cultural heritage itself is posed again: How much freedom are we allowed when reconstructing an artefact or a structure according to typologies and analogies. This question has been revived, but there is now an important new aspect to it – namely, in case of virtual reconstructions, the object itself is in no way changed or altered. The reconstruction based on the interpretation does not become physically real and involving interference with the original object or structure, but it is still one that is possible to present widely, and discuss on various levels.

A very interesting perspective has recently been offered by Piccoli (2014) in which she demonstrates her awareness that ”3D reconstructions are problematic since they are the product of an interpretation process that entails the integration of heterogeneous sources such as historical texts, epigraphic material and geophysical survey to supplement the information that is missing from the archaeological record. This process results in formulating an educated guess on what the past looked like and it needs to be clearly documented in order to offer an intellectually transparent 3D model” (Piccoli 2014). Frischer et al. (2002) suggested that a “new philology” was needed for 3D archaeological visualizations, making an analogy with how philologists prepare a corrupted text for publication by providing an *apparatus criticus* to explain their integrations. Presenting the sources and the thinking process that leads to the choice of one reconstruction hypothesis over others is, in fact, the only way in which the research community can assess the scientific value and the reliability of 3D models.

This theoretical stand is valid and insists on creating ‘intellectually transparent models’. Such an approach offers various possibilities to utilize 3D reconstructions and amassed 3D models of cultural heritage, but retain scientific methodology. Computer environment

is an ideal one for providing plethora of information which is available either from the literature, or from archaeological excavations and research, or from other disciplines whose knowledge is included in the reconstructions.

This volume presents, or rather, it is a result of a more eclectic perspective and does not follow one theoretical standpoint regarding the implementation of the VR products in archaeological interpretations and presentations. One of the reasons we would like to stress here are experiences of the authors who all had long careers in field archaeology and preventive research, and are still working in this branch of archaeology. It is these experiences which considerably influenced the ways how the VR reconstructions are considered and put into use. The perspective of being and working mostly on the professional side of the archaeology clearly reflects in the presented papers. In other words, the needs for consideration and implementation of VR reconstructions stems also from the need for improving the quality and relevance of the day-to-day archaeological practice and endeavours in the field and laboratories. In fact, it is this day-to-day practice which puts numerous archaeologists into situations where they have to constantly reflect their work and potential results and products.

As it was stated in the introductory chapter to this volume, the CONPRA publications are produced and aimed at younger professionals predominantly, but not exclusively, working in preventive archaeology. It is this population of archaeological experts who are working in increasingly competitive environment which requires constant capacity building for facing current challenges.

The introductory paper is followed by nine papers focusing on some major (definitely not all), aspects connecting archaeological practice and VR presentations and potentials. In doing this, we have attempted to cover some essential theoretical issues (Chapters: Introduction to virtual reconstructions; Physical vs. virtual reconstruction; Augmented reality as an output), technological aspects (Chapters: A comparison of different software solutions for 3D modeling), learning basics of visual products (Chapter: 2D and 3D visual products: First step towards virtual reconstructions) and a series of case studies and examples (Chapters: About digital field documentation; Brief overview of examples of VR projects; Virtual reconstruction of the Vinča-Belo Brdo site; Examples of good practice in 3D visualisation in preventive archaeology). It is important to note here, that with the exception of three cases presented in the chapter Brief overview of examples of VR projects (Catalhöyük, Uruk and Etruscanning 3D project) all other papers derived from the archaeological field research performed by the authors who had the possibility to control all different aspects involved in a complete research, from logistics, field execution to interpretation and presentation of the results. While this may not be so relevant for the VR products themselves it is highly relevant for demonstrating some other important aspects regarding professionalism in preventive archaeology, especially the learning capacities and 'organic' development and transfer of knowledge of new ideas and technologies. If preventive archaeology is to go beyond the level of basic field service and strengthen its relevance, which is constantly challenged by other stakeholders in spatial development process, it is necessary also to build up on the experiences and knowledge of the practitioners of preventive research. Here the transfer of knowledge is clearly multi-directional process in which VR can provide excellent communication or transfer tool, or language for communicating within archaeology, with other stakeholders involved in the archaeological research processes and practices, and public.