

BE-ARCHAEO digital tools

Contemporary Archaeology requires the storage of the excavation data and findings in data bases, with schemata that properly sort out the information, and implement the tracking of the understanding process

From early April to end of July - 2022, Vincenzo Lombardo, coordinator of Work Package 4, has been a visiting professor at Okayama University. He has been working with Joseph Ryan, at the Research Institute for the Dynamics of Civilizations.

Recent archaeological investigations rely on digital archives (some scientists have come to say that “excavation is digitization”). The interpretation methods and the research outcomes are to be as transparent as possible. Data bases for archaeology provide a store for the immediate informal notes and all the subsequent activities and results, based on suitably designed structures of the data base. This process goes up to the documented conclusions that rely on laboratorial analyses of the artifacts. Archaeologists and archaeometrists can review and update data base entries, and trace back much of the background to make sense of interpretations and discover new knowledge. The data base of the BeArchaeo project has been designed and implemented at the University of Turin (colleagues Rossana Damiano, Tugce Karatas, and Claudio Mattutino). The significant amount of data gleaned from the archaeological excavations of various sites in the general Okayama area, including Tobioticsuka kofun, has been carefully inputted by students of the Okayama University Department of Archaeology (Yuuri Hirano, Saaya Iwamoto, Daijiro Yoshioka, and Matsui Shogo), coordinated by Joseph Ryan under the guidance of Vincenzo Lombardo.



The database is part of a digital workflow applied in the BeArchaeo project. A number of findings and environments, from Tobioticsuka kofun and from other sites have been scanned by Vittorio Lauro, Nicolò Masturzo and Giorgia Greco to produce their digital twins, archived in a repository. The 3D scanning process has also concerned the excavation activities. All these digital items will be part of the **virtual reality environment BeA-ViR**, developed by Vincenzo Lombardo, Vittorio Lauro and Vittorio Murtas, where scientists can validate their hypotheses, by tracing back their research progresses, and general public can have a privileged viewpoint on the research achievements. The virtual reality environment will be used at the BE-ARCHAEO exhibition that will take place at the Izumo Museum (Shimane prefecture) in October 2022.

