

PROJECTS

A puzzle in 4D: Digital Preservation and Reconstruction of an Egyptian Palace

The project is hosted by the Institute for Oriental and European Archaeology (OREA, project leader: Dr. Barbara Horejs) at the Austrian Academy of Sciences (ÖAW) and is carried out in cooperation with the LBI ArchPro, the Austrian Center for Digital Humanities (ADCH), Universität Bochum, Chicago University, Austrian Archaeological Institute (ÖAI), Archaeology Data Service and PIN Scri - Polo Universitario "Città di Prato". It is funded by the Austrian Nationalstiftung.

The project will provide long-term preservation for the rich archaeological resources of the Austrian long-term excavation project at Tell el Daba (TED) in Egypt; it is designed as a case study for the development of a repository for archaeological data at the ACDH. Digital and non-digital excavation data (analogue photographs, drawings, written documentation etc.) will be integrated according to stratigraphic, i.e. archaeological spatio-temporal principles, enriched with metadata and prepared for long-term archiving and open-access online publication. The resulting maps and 3D models will form the basis for a comprehensive virtual reconstruction of the site including its world-famous Minoan wall paintings, making it accessible online for research as well as the interested public.

The LBI ArchPro is involved in the development of a 4D Archaeological Information System (AIS), the digitization process of TED excavation record and the visualization of archaeological data in a virtual reconstruction of the site.

More information:

<http://www.oeaw.ac.at/oesterreichische-akademie-der-wissenschaften/news/article/ein-puzzle-in-4d/>

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Digital Analysis and Visualization of the 18th Dynasty Delta Residence at Tell el-Dab'a/'Ezbet Helmi, Egypt

This project focuses on the digital recording and the analysis of data from field work in the Eastern Nile Delta by the Austrian Archaeological Institute Cairo (ÖAI). Project data comes from a palace district of the early 18th Dynasty (15th century B.C.) at 'Ezbet Helmi. In ancient times it was part of the large urban area of the town of Avaris, the capital of the Hyksos; today, the archaeological site is known as Tell el-Dab'a.

The data corpus reassembles information about the architectural remains and the find materials from field areas H/I, H/IV and H/V, which encompass the substructure of a palace and surrounding districts. The plot has gained public attention due to the finds of Minoan wall frescoes in the area.

All data is collected within a Geo referenced database, that serves the creation of a Harris-Matrix for the itemisation of the stratigraphy. Furthermore, the corpus is used for the determination of the architectural remains via the analysis of the find contexts. As a result of this process, stratigraphic 3-D models are provided, as well as visualisation of the ancient landscape using hypothetical models. Finally, the acquired data and results will be stored in the archives of the ACDH (Austrian Center for Digital Humanities).

The project (no. 17916) is funded by the Anniversary Fund of the Oesterreichische Nationalbank (OeNB), and hosted at the VIAS (Vienna Institute for Archaeological Science) in the Faculty of Historical and Cultural Studies at the University of Vienna. It is conducted in Collaboration with the Ludwig Boltzman Institute for Archaeological Prospection and Virtual Archaeology (LBI ArchPro). Support is provided by the Institute for Egyptology at the University of Vienna, and the Institute for Oriental and European Archaeology (OREA) and the Austrian Archaeological Institute (ÖAI), both at the Austrian Academy of Science.

More information:

<https://vias.univie.ac.at/projekte/aktuell/tell-el-daba/>