TARP : THORIKOS ARCHAEOLOGICAL RESEARCH PROJECT

Roald Docter, Killian Regnier, Pieterjan De Potter, Christophe Verbruggen, Cornelis Stal, Piraye Hacıgüzeller, Koen Van Gelder, Guy Dierkens, Alain De Wulf, Bruce Hartzler, Georgios Verigakis, Sophie Duchène, Quentin Drillat

THE THORIKOS ARCHIVE
OPERATIONALIZATION OF THE LEGACY DATA COLLECTION

From legacy data...

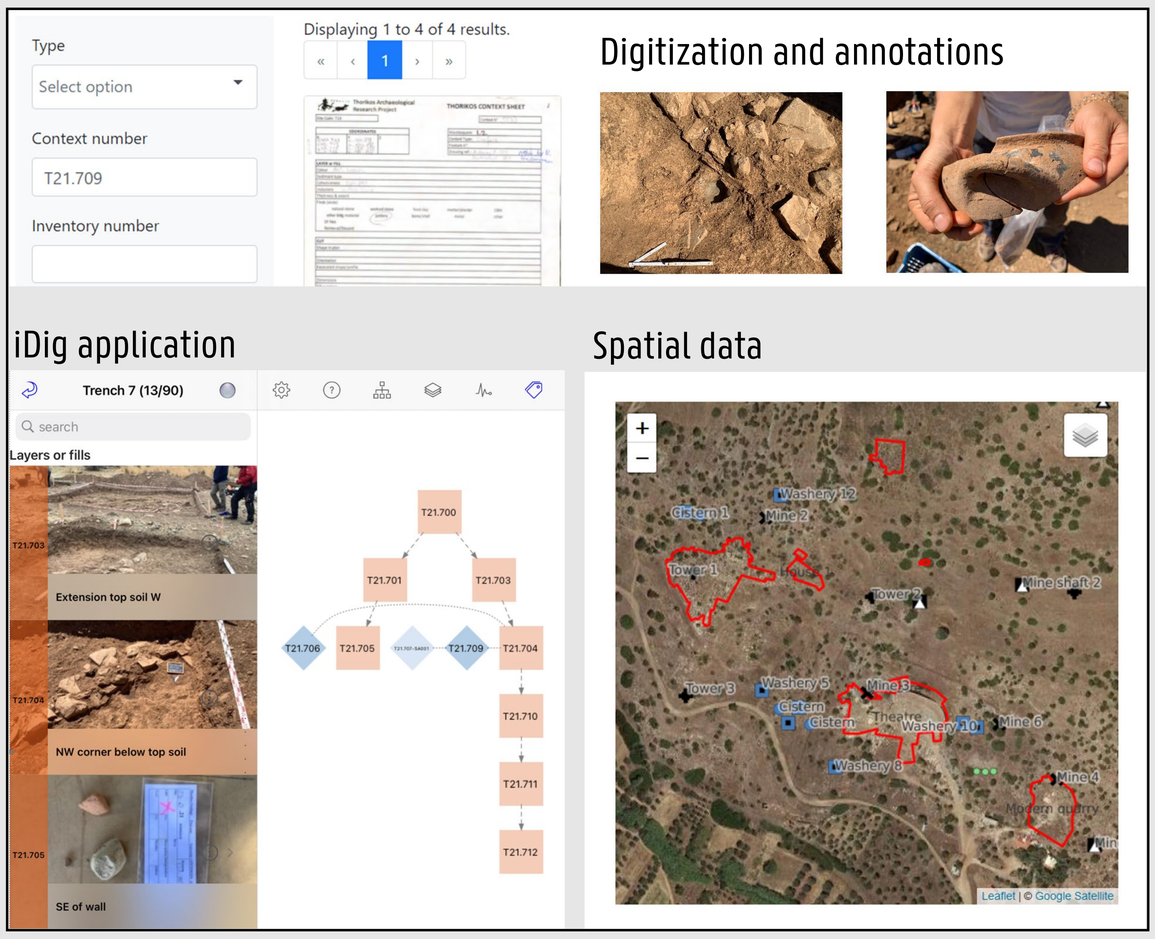
A long term project

In 1960, Ghent University professor of Greek archaeology, Herman Mussche, started an excavation in Thorikos (south-east Attica), which he subsequently expanded into a project involving four Belgian universities (Rijksuniversiteit Gent, Université Libre de Bruxelles, Université de l'Etat à Liège and the Université Catholique de Louvain). The Thorikos Archaeological Research Project (TARP), as it is now called, under the aegis of the Ephorate of Antiquities of East Attica and the Belgian School at Athens (EBSA), grew into a highly international and multidisciplinary enterprise now involving 64 researchers affiliated with 30 universities and research centers.

Digitization

Only a limited amount of the legacy data and documents from this project is digital-born, mainly from 2004 on. Over the past eight years, the collection of original analogue documents has been almost completely digitized in the form of scanned images that are accessible via a cloud storage system hosted by Ghent University (almost half a terabyte). Each file in this data ecosystem has its own project-specific unique identifier and all have been put in a logical data structure for easy access and further integration.

This database contains, among others:
- 43,738 photos and slides
- 10,103 "fiches" (architecture and excavation)
- 1046 plans and section drawings (architecture and excavation)
- 47 notebooks (field diaries)
- Etc.



iDig application

iDig is an iOS application developed for the Athenian Agora excavations of the American School of Classical Studies by Bruce Hartzler and Georgios Verigakis. Designed for replacing archaeological 'paperwork' while keeping sufficient customization for each field workflow, iDig will not only be used in Thorikos for future excavations but also help the integration of the numerous past ones into one complete database.

iDig has been implemented for the first time at Thorikos during the 2021 field campaign in the so-called Southeast Necropolis sector, co-directed by Johannes Bergemann (Göttingen) and Roald Docter (Ugent). Linked by a Raspberry chip configured as a local access point to a Leica TS06 Plus, iPads have been successfully used to record all excavation data along their spatial component. This first testing campaign, doubled with handwritten recording for data safety reasons, has demonstrated the benefits of a real-time digital recording in a single context excavation system. Thanks to this digital recording, data of future excavations can now easily be integrated into the ground truth mentioned above, thereby circumventing the intermediate step of annotation.

... To an integrated archive

Spatial data

A site plan was created in the early 1960's, based upon a grid system laid out over the whole site. In order to facilitate spatial consistency of the various spatial data sets within the database, all features have been referenced in an absolute coordinate system. With the use of such a system, as well as the systematic use of grid identifications and object definitions, features at the site are unambiguously defined. These geospatial data sets of Thorikos have been represented visually in the format of a general site plan that already incorporates many of the individual architecture plans; it is used as a basis for cartographic representations supporting the publications.

The Thorikos Archive project

In 2020, the Special Research Fund of Ghent University awarded an important grant to annotate and operationalize these legacy data over the years 2021-2022. Its aim is twofold:

1. All nameable archaeological entities (e.g. objects, features, like walls, and archaeological contexts) in the scanned legacy documents are annotated by adding the (geo-)metadata to these digitized and digital-born data.
2. By setting up an iDig application adapted to the Thorikos context (cf. sidebar in orange), we can create a platform for recording and facilitate the access to different datasets during excavation.

To this end, the digital recordings of iDig will be combined with the digitization and annotation of the archives. The results of both the recordings using the iDig application and the annotation tool can be exported to files in basic text formats (CSV and JSON). These data files are then stored on a shared network drive as ground truth but can still be updated with future data improvements using the applications that created them if necessary. Data from this ground truth is then imported into a custom web application based on Elasticsearch to facilitate easier exploration by providing a faceted search interface, links between the digital objects, and links with the general site plan.

The digital archives are henceforth available to all researchers within and outside of the project, who are given password-protected access, as well as to the Greek Ministry of Culture and the Ephorate in compliance with the permit's stipulation to provide access to (copies of) all documentation of the archaeological fieldwork. In the end, it is foreseen that the data or parts thereof (i.e. the published datasets) will become fully open access. In this way, it is intended that the TARP archives will become an active tool in furthering archaeological research and not remain a closed and dead repository of inaccessible data sets.

Contact

roald.docter@ugent.be
www.thorikos.be

Thorikos Archaeological Project

@thorikos

Thorikos

EBSA TARP