

ANALYSING FUNCTION: A PILOT STUDY USING GEOGRAPHICAL INFORMATION SYSTEMS IN THE HADJIABDULLAH COMPLEX AT PALAEPAPHOS (CYPRUS)

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Abstract

The citadel of *Hadjiabdullah* at Palaepaphos has been under investigation by the Palaepaphos Urban Landscape Project (PULP) since 2009. The excavations have revealed an impressive and extensive citadel complex of the Cypro-Classical period. Research carried out under PULP aims to elucidate the chronological range of this purpose-built monument, the specific function of each one of its storage and industrial units, and the episodes that led to its final abandonment.

The poster presents the functional analysis of Room 1, the first securely identified unit of the complex, using Geographical Information Systems (GIS) for the micro-scale recording of the excavation data.

The excavation layers in Room 1 have yielded a large number of storage and transport container fragments. These vessels, especially the amphorae, provide secure chronological indicators. They can be used in order to define the starting and end date in the use of the room and its function during different economic horizons. The locational identity and frequency of these containers, in combination with residue analyses of selected examples, will provide decisive data with regard to the original role and use of Room 1 in the context of the construction of the *Hadjiabdullah* citadel complex.

An entity-relational geo-database has been constructed in order to record the different vessels from Room 1 and to provide answers to a series of archaeological questions that may be raised as part of the on-going excavation of the extensive citadel complex. The database will be able to be modified and re-structured based on new finds. The GIS platform will play a key role in this study: it will be used as a “database” tool and, at the same time, it will support spatial analysis and empower the production of a series of thematic maps.

Palaepaphos

The site of Palaepaphos (Old Paphos) is situated within the boundaries of the modern village of Kouklia, on the southwest coast of Cyprus. The region corresponds to the political centre of the city-kingdom of ancient Paphos. Paphos was the ancient name of the polity and of the capital centre. Following the establishment of Nea Paphos, some 12 kilometres to the west, and the subjugation of Cyprus to the Ptolemaic kingdom of Egypt, Paphos began to be referred to as Palaepaphos in the epigraphic and literary sources of antiquity. Despite the loss of its political status, Palaepaphos acquired international acclaim because of the famous *temenos* of the Cypriot Goddess, or Aphrodite. However, beyond the area of the Sanctuary, which preserves part of the original Late Bronze Age megalithic *temenos* as well as later buildings of the Hellenistic and Roman eras, very little was visible of the built environment of the *polis*-state of Paphos, which was ruled by local *basileis* to the end of the 4th century BC.



Fig. 1: Location of Palaepaphos in the SW part of the island of Cyprus



Fig. 2: Map of Palaepaphos, indicating the location of the Sanctuary and the locality of *Hadjiabdullah*

For more info: <https://www.ucy.ac.cy/pulp/>

Palaepaphos Urban Landscape Project (PULP)

Excavations in *Hadjiabdullah*

Since 2006, Palaepaphos has been the focus of an innovative landscape analysis project designed and directed by Professor Maria Iacovou of the Department of History and Archaeology of the University of Cyprus.

In the context of the Palaepaphos Urban Landscape Project, the plateau of *Hadjiabdullah* was targeted as a special function zone and it was placed under investigation since 2009. Six seasons of fieldwork have revealed that the north slope of the plateau is built almost in its entirety and that the excavated architectural remains belong to two distinct complexes. The “eastern complex”, which was excavated by a British mission in the 1950s, is a monumental edifice built with ashlar masonry. The “western complex”, unknown before PULP’s field operations, consists of a series of roofed units and open spaces that have different storage and industrial functions (e.g. processing of olives, wheat and murex shells).

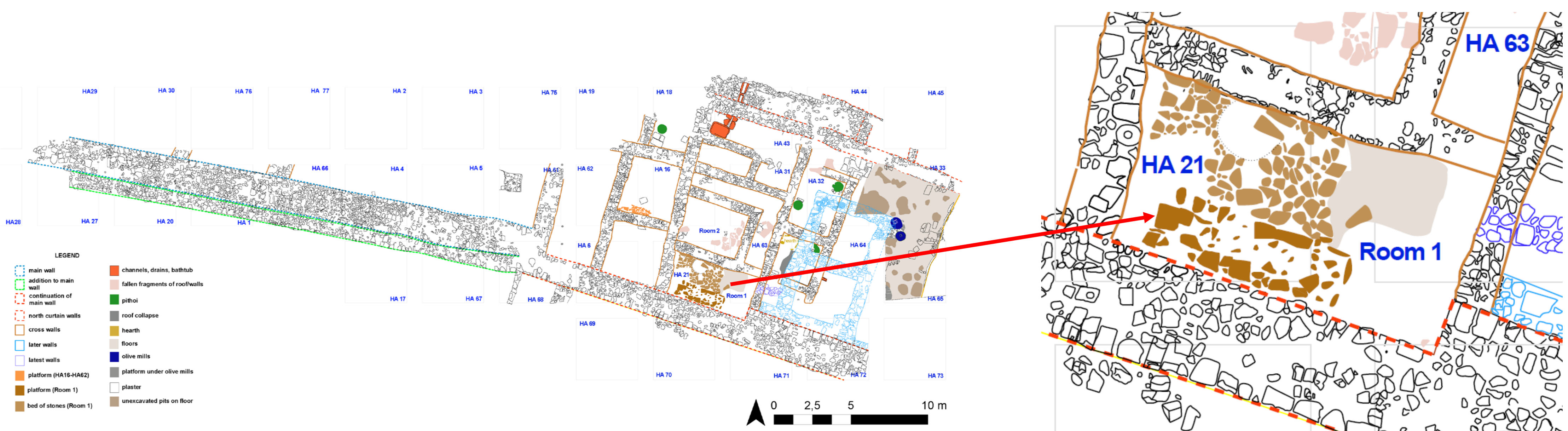


Fig. 3-4: Ground plan of *Hadjiabdullah* at the end of the 2016 season and close-up view of Room 1

Room 1

Room 1 (2.80 x 5 m) is located directly north of the main citadel wall; its use surface was sealed underneath a thick layer of roof materials and stones from the collapsed walls. A stone built platform rested against the main wall (Room 1, south side). Judging by the large amount of closed vessel fragments collected from this area, it was used for placing storage and transport vessels. Against the north side a worked round stone (96 cm diameter) rested on a hard-packed floor. The large number of amphorae fragments that were collected from the excavated layers of Room 1 is studied by Professor Antigone Marangou (Université de Rennes II). Together with the soil samples, olive pits and charcoal collected from the different strata for further analyses, the analysis of the amphorae will enable the definition of the role of the unit and the range of citadel’s international trading activities.



Fig. 5-6: Views of Room 1

Micro-GIS and Entity-Relation Database

Entity-Relation Database

The E-R database was structured in order to include all the necessary information obtained from Room 1. These entities can be categorized in three broad groups: (a) information related to the excavation of a sherd, (b) information related to the chronological and typological identification of a sherd and (c) information related to the recording of a sherd. The E-R database contains the following fields:

- site
- excavation year
- trench
- layer
- phase
- destruction phase
- room
- inventory number
- type
- rim
- handle
- base
- body
- minimum number of objects
- production center
- description
- fabric
- mark
- inscription
- content – type
- content – analysis
- date – upper end
- date – lower end
- MAA – unique object number
- illustration
- storage
- date from pottery analysis



Fig. 7: Amphora handle from Room 1

The preliminary analysis of the amphorae found underneath the collapse layer indicates that Room 1 was used primarily in the 4th century BC.

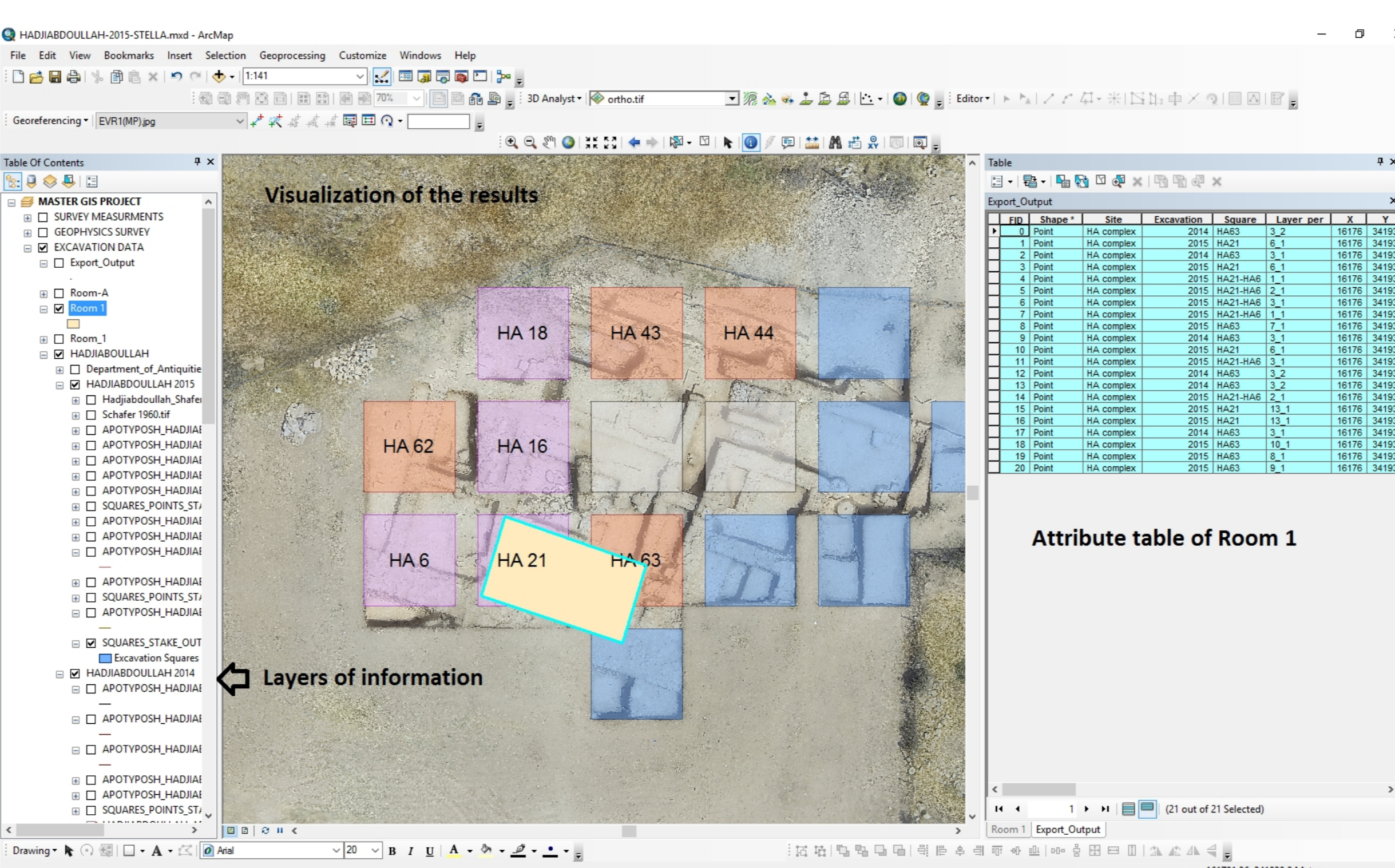


Fig. 8: Micro-GIS environment

Conclusions

Room 1 micro-GIS environment was built and structured so as to be used as a paradigm for the development of future micro-GIS environments that will incorporate the excavation and collection of pottery, soil samples, and other organic materials from *Hadjiabdullah*. Such a tool is considered a necessity as the volume of data from the excavation increases yearly and as more specialized analyses are needed. The combined results will aid the interpretation of this multifunctional complex, which was evidently built by the royal dynasty of Paphos during the early days of the Cypro-Classical period. Improvements and modifications are expected based on the new findings from the on-going excavations.