



**Digitizing Early Farming Cultures:** 

# Making new use of digital and analogue resources from Neolithic sites in Greece and Anatolia

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# Overcoming the fragmentation of research on Neolithic and Chalcolithic sites and finds in Greece and Western Anatolia (7000-3000 BC)

**OBJECTIVES** 

- Creation of a standardized and integrated research dataset.
- Digitization of analogue OREA resources.
- Make the data available open access online.





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#### AEGEAN and ANATOLIA 7000 – 3000 BC





**OREA – Research Group:** Anatolian Aegean Prehistoric Phenomena (AAPP)





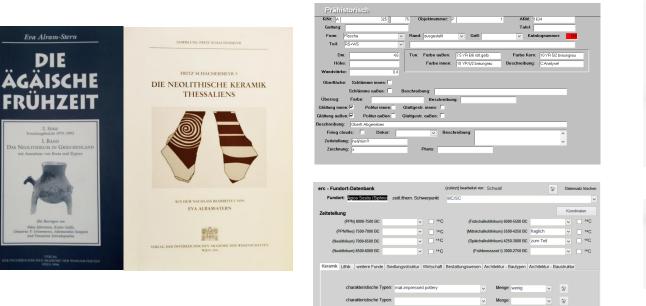


## RESOURCES

#### Analogue

#### Databases (pottery and site databases)

#### Schachermeyr pottery collection



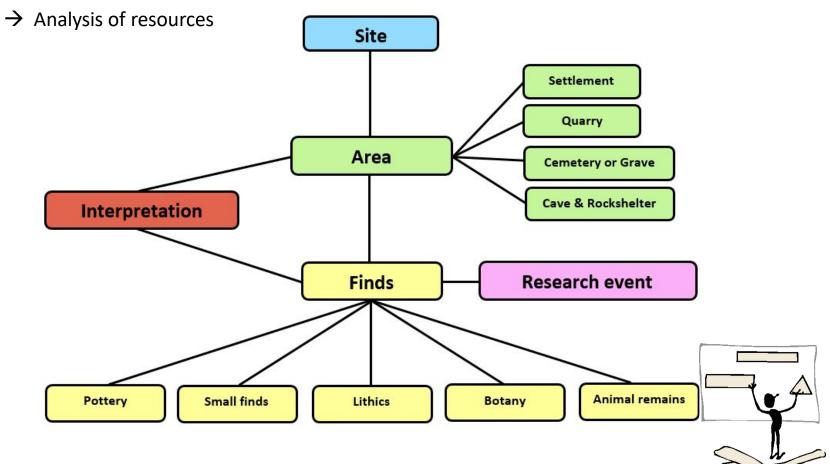


**OREA – Research Group:** Anatolian Aegean Prehistoric Phenomena (AAPP)



### $\rightarrow$ Creation of a conceptual data model

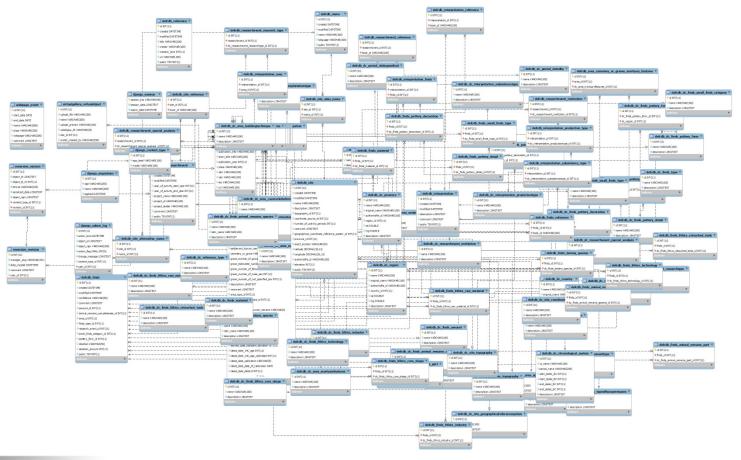
ightarrow Focus group meetings with AAPP research group





### $\rightarrow$ Creation of a site database

- $\rightarrow$  Implementation into open source software <u>marches</u> failed.
- $\rightarrow$  A site database (DEFC App) was created using django





Data stored in MySQL database

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- Web-based application (runs in the browser, installation is not needed)
  - Data Curation via user friendly interface based on web forms
  - Most of fields are related to controlled vocabularies for data consistency
    - dropdown lists
    - autocomplete fields

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- Granular user management with different read/write rights
- Real time analysis: e.g. geo-visualization of sites, customized filtering/ordering, more to come...
- All data can be retrieved via RESTful API
- Integrated external Open Access resources: Zotero bibliography and Geonames

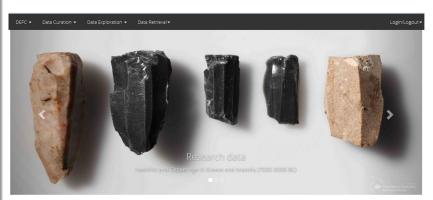
Reference	
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Renfrew C. The Goulandris Museum of Cycladic and ancient Greek Art 1986	Site with this Name and District already exists.
Doumas C. Cycladic art: ancient sculpture and ceramics from the N.P. Goulandris 1979 Washington	☑ Public Make this record public or not?
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L. Marangou Minoan and Greek Civilization from the Mitsodakis Collection (N.P. Goulandris Foundation) 1992 Athen	Name Achilleion
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	Geographical area where the site is located.



### $\rightarrow$ Digitizing analogue resources

- $\rightarrow$  Data entry into DEFC app.
- $\rightarrow$  3D digitization of Schachermeyr pottery collection.

### http://defc.digital-humanities.at/



#### Digitizing Early Farming Cultures (DEFC)

The objective of Digitizing Early Farming Cultures (DEFC) is the standardization and integration of archaeological research data from the Neolithic and Copper Age (7000 – 3000 BC) in Greece and Western Anatolia.

Greece and Western Anatolia are two neighbouring and archaeologically closely related regions. However, they have usually been studied in isolation from each other, resulting in fragmented data organized according to different knowledge schemes. Independent terminologies and chronologies have developed, hindering collaborative research. To provide a basis for studying archaeological phenomena collaboratively across the whole region, standardization of research data is required. The aim of this project is to harmonize existing datasets, digitize analogue data from publications and integrate metadata for easy access and data reuse.

#### Project partners





#### Site DEFC / DATA EXPLORATION - SITES / SITE ACHILLEION Show / Hide all fields Main Information Site ID 54 Name of the site Achilleion District Larissa Thessaly Region Country Greece Topography inland Exact location yes 🔲 Bibliography

 
 Reference
 Gimbutas M, Winn S, Shimabuku D, Achilleion: A Neolithic Settlement in Central Greece, 6400-5600 B.C., 1989;Los Angeles Alram-Stern, Evo,Die Agäische Frühzeit, 2. Serie, Forschungsbericht 1975-1993, 1. Band. Das Neolithikum in Griechenland mit Ausnahme von Kreta und Zypern, 1996;Wien

 Areas In this Site

www.orea.oeaw.ac.at

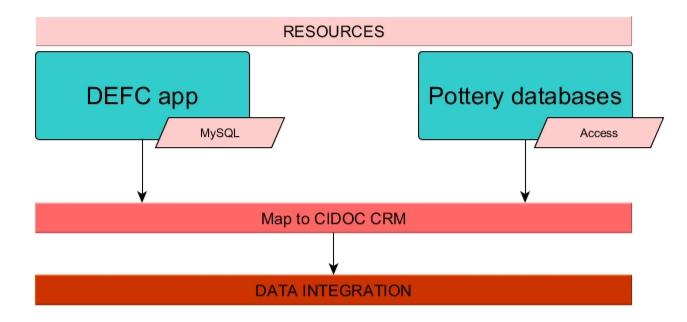
ÖAW DEFC © Apr. 2016





### → FUTURE

- $\rightarrow$  Data integration
  - ightarrow Mapping DEFC App and pottery databases to CIDOC CRM
  - $\rightarrow$  Integration of databases
- $\rightarrow$  Linked data
  - $\rightarrow~$  Creation of a triple store with a SPARQL endpoint
  - ightarrow Online open access to dataset





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# **PROJECT TEAM & FUNDING**



REA Institute for Oriental and European Archaeology



- **Edeltraud Aspöck**
- Anja Masur
- Seta Štuhec

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Irene Petschko .



- Peter Andorfer
- Ksenia Zaytseva
- Matej Durco

Anatolian Aegean Prehistoric Phenomena (AAPP)

- Eva Alram-Stern
- **Christoph Schwall** •
  - Barbara Horejs

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# Thank you for your time and attention!