

ATLAS

https://www.selecteplus.eu/atlas/







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Introduction

The project SELECT focuses on the cultures of ancient Europe before Romanisation. The ancient peoples outside the Greco-Roman world are the "minorities of the past" whose heritage is often neglected by most of the European education system. An understanding of ancient European history is crucial for today's multicultural societies.

With the aim of contributing to the improvement of the study of history and geography, an innovative, multidisciplinary, multi-layered, interactive tool (ATLAS) has been created. It can be used for self-study and/or as a complementary tool in class to fill historical, educational, and cultural gaps.

In addition, ATLAS with the languages, scripts and cultures of ancient Europe also encourages citizens to learn about these topics on their own.

In summary, SELECT addressed two key needs:

- To increase European citizens' awareness of the common European cultural heritage outside the Greco-Latin world by reconstructing the entire historical geography of the peoples who settled in ancient Europe and left a written sign of their presence.

- To provide European education systems with a self-learning tool for the study of the ancient world while promoting their digital literacy, as proposed in the European Guidelines "New Skills Agenda for Europe".

Understanding ancient European history is vital for today's multicultural societies. Across Europe, a common heritage should regain importance to foster mutual understanding.

The Data underlying the Atlas

The simple and user-friendly interface of the ATLAS is fed by a database of nearly 40,000 records collected and processed over three years: 17,231 epigraphic records of 1,208 sites and 4,680 archaeological records of 1,751 sites. The work behind the atlas is based on a solid scientific foundation, and this was the biggest challenge of the project: to make the study of ancient peoples, which is a complex and often impenetrable work, simple and accessible to students and interested people.

One of the most complex phases was the analysis of the sources and the collection of data (Scouting & Data Survey) to define the different cultures. The biggest difficulty in this phase was the standardisation (updating of the databases) of the data that was gradually collected.



Fig. 1 - the dataset

A considerable amount of information was identified by reviewing the existing bibliography (publications, reports of excavations, monographic and non-monographic works, museum catalogues) in order to find all the data useful for reconstructing the cultures of the different people who lived in Europe in pre-Roman times (only communities who left written sources were considered).

After an inventory of the available data, the scientific partners developed a collection and verification process that made it possible to import the data into a



database, standardise it, visualise it in a geographical tool (the QGIS software) and transfer it to the project's server.

Data includes online databases (Hesperia, RIIG or LexLep), computerised (but not online) databases (Monumenta Linguae Messapicae - 2002, Monumenta Linguae Raeticae - 2015), books (for example Etruskische Texte by H. Rix, Celtico d'Italia by A. Morandi, Imagines Italicae by M. Crowford) and data from associated partners, such as records on Phoenician-Punic culture (Università di Roma Tor Vergata) or Venetic inscriptions from Slovenia (University of Ljubliana, Slovenia).

The database was also revised thanks to the collaboration of specialists in both the epigraphic-linguistic and archaeological fields.



The Platform

Plotting the Data: Cartography

The epigraphic-linguistic and the archaeological databases were supplied by all the scientific partners and imported by the technical partner into a general FileMaker dataset consisting of 200 fields for each dataset. Only a selection of the data is displayed on the ATLAS (only 50 fields).

The biggest difficulty in this phase was the standardisation of the collected data, as the data came from different sources in different formats and languages. Therefore, the partners of SELECT standardised the labelled objects, the alphabets, the sites and the archaeological cultures and created a relational database with many interrelated tables.

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glass			cippus			
hardstone			coarse ware			
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30016		omb	statue			
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fig. 2 - Standardisation: object typology



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itati/aree insediate, Tombe isolate	settlement		cult places			
itati/aree insediative	settlement		mint			
itati/aree insediative, Monete galliche sporadiche	settlement					
itati/aree insediative, necropoli, luoghi di culto, ripostigli di monete galliche	settlement	necropoli	necropolis			
itati/aree insediative, tombe isolate	settlement		settlement			
tato	settlement					
itato	settlement					
tato ?	settlement					
itato (?)	settlement					
itato e necropoli	settlement	necropoli				
itato e necropoli (tumulo con all'interno tombe a cassetta litica)	settlement	necropoli				
itato e tombe	settlement	necropoli				
itato, necropoli	settlement	necropoli				
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ra /errore per 'cava'?						

Fig. 3 - Standardisation: site typology

The normalised data were then visualised in QGIS and transferred to the project's server.



Fig. 4 - The Select Database: Structure



The tool used to import data into the cartographic environment is the open-source application QGIS (QGIS https://www.qgis.org/en/site/), which was the first to plot and visualise geographical, historical, and archaeological data.

The data could later be exported from the database to a CSV file and then imported as data points into the cartographic software of the SELECT Platform. This processing via QGIS enabled the creation of hundreds of individual maps on archaeological cultures, languages and writing systems in different periods (centuries) and geographical areas. A selection of print-ready maps has been uploaded to the Atlas Portal and can be accessed via the "Examples" button (https://www.selecteplus.eu/atlas/).



Fig. 5 - The Ready-to-Print Maps

These maps can be used with the web based SeLECT ATLAS for educational purposes. QGIS cartography has used external sources for the cartographic layout of the Select Atlas:

- Pleiades Ancient World Mapping Center website, New York University, and Institute for the Study of the Ancient World, University of North Carolina at Chapel Hill (2000, 20.8), available at https://pleiades.stoa.org.
- OpenStreetMap by the OpenStreetMap Foundation (OSMF), available online at https://www.openstreetmap.org/copyright.
- Natural Earth (2009-2023), available online at https://www.naturalearthdata.com/.
- Ancient World Mapping Center, New York University: Ancient World Mapping Center available online at http://awmc.unc.edu/wordpress.



All acknowledgements for the use of these external sources are listed in the ATLAS Portal under the heading "Credits".

The IT Tools

Once the data had been normalised and integrated into the QGIS software, the technology partner created the background cartography, which was imported into the SELECT platform using the open-source JavaScript Leaflet library (https://leafletjs.com/). In this way, the cartographic environment created by QGIS, which was specifically tailored to the needs of SELECT (highlighting old coastlines not covered by modern cartography), could be created and transferred to the project server.

In order to be reached by many users from Europe and other countries around the world at the same time, a robust, high-performance server and data transfer platform is required. The platform used to manage the SELECT project was MySQL, which allowed it to connect to the integrated QGIS. MySQL (Structured Query Language) is open-source software, a programming language that can be freely used and modified.

In addition, the Omnis Studio development environment was used to deliver applications on virtually any device and platform, including tablets, smartphones, and desktop computers. This made it possible to develop both the web and mobile versions of ATLAS after integrating and optimising the database.



How to use the Atlas

Users can access ATLAS from the Select home page by clicking on "ATLAS" in the menu. They will then find the ATLAS portal, which briefly presents the most important information about browsing with the tool. The ATLAS is an intuitive and self-learning tool.



Fig. 6 - The Select Portal: the Atlas

As explained in the "How to" button, the atlas consists of two parts: the Map Library (examples of print-ready tables) and the Map Manager, the tool for creating maps on demand. If you click on the "What, When, Who, Where" buttons, you will find a brief description of what is in the ATLAS: a chronological framework, a list of all populations considered and an explanation of the historical regions covered by the cartography.





Fig. 7 - The Atlas Portal



Fig. 8 - Navigation and search options

Once users have obtained the results of a query, they can click on the dots representing ancient sites to obtain more information on the records attested at a



site.



Fig. 9 - Example of search (query): Etruscan epigraphy

Clicking on the individual points corresponding to ancient settlements, a pop-up window will display all the records for a site with details of the site's typology and archaeological/epigraphical aspects.





Fig. 10 - Popup window: Venetic Culture (list of records)

Clicking on the green infographic, tables with the most important examples of epigraphic or archaeological culture are displayed in two languages (English and the partner's language).





Fig. 11 - Example of Infographic: Oscan Epigraphy

By selecting the geographical menu at the top right, users can also easily find out which are the most important records of their country or the region they live in.





