



EARP - European Archaeological Research Projects: A Fieldwork Opportunities Database on the Internet.

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Abstract

EARP (European Archaeological Researches Project) is a fieldwork opportunities database on the Internet. It is part of the European Project ARCHEONET - ARCHAEOLOGY TOWARDS THE THIRD MILLENNIUM, one of the key Socrates SIGMA projects, in close collaboration with the European Association of Archaeologists and headed by the University of Bristol. One of the major task of the Archeonet project is to help and increase reciprocal field training. EARP major aim is to link together European students with Universities and Institutions promoting archaeological researches in Europe. In this way EARP will facilitate student mobility and promote educational training and archaeological information exchanges in Europe. This database is an Object Oriented Relational Data Base, and its technology handles not only alphanumeric but even complex data as images, sounds, videos etc. The authors of this project are the Istituto di Archeologia - Universita' degli Studi di Milano and the CILEA (Consorzio Interuniversitario Lombardo per l'Elaborazione Automatica).

1 Introduction

The Istituto di Archeologia of the Università degli Studi di Milano and the CILEA (Consorzio Interuniversitario Lombardo per l'Elaborazione Automatica, Segrate) are participants in the ARCHEONET project (<http://archweb.LeidenUniv.nl/archeonet/>), one of the only 28 thematic networks funded by DG XXII of the European Community. This network is the result of a study made by a group of European Universities developed in close collaboration with the European Association of Archaeologists. Its aim is to increase the education and training of common professional standards within the European Union while retaining cultural diversity, and to solve the problem of students' mobility through the use of distance teaching modules, videoconferences, and general information exchanges on line.

CILEA attends to the implementation, the Istituto di Archeologia to the contents, following a scheme well tested in the past with excellent results.

In the Archeonet first phase the activity of these two institutions is divided into different development lines:

1. creation and management of an European Database (EARP) on fieldwork opportunities;
2. creation and management of a HyperMail system for the community of archaeologists;
3. creation of ARGE¹ mirror site;
4. participation in thematic videoconferences.

The second phase of Archeonet will start this autumn: all these actions will be put into operation and new projects will start, including the participation of new European projects.

2 The Web Site

The Internet site *European Archaeological Research Project (EARP - <http://archeonet.cilea.it/archeosite>)* is part of the European project Archeonet - Archaeology towards the third millennium. One of the major tasks of the network is to help students and researchers to take part in archaeological projects in Europe. A major aim of EARP is therefore to put students and researchers directly in contact with Universities and Institutions promoting fieldwork and surveys.

We thought that a database would be the best tool to see on-line details of research projects looking for foreign students, and to manage the participation forms sent by the students. To simplify access to the database, this Internet site is simple and user friendly; that's how the browsing speed has been minimised.

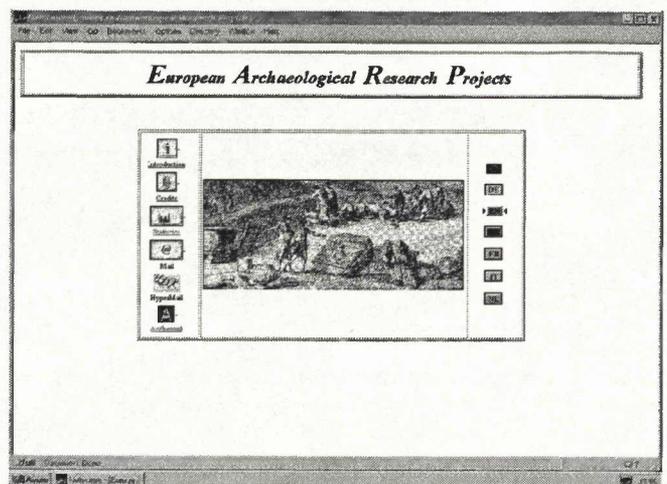


Figure 1.

From the Homepage (see Fig. 1), before starting the research, you can select some icons:

1. *Information*, to obtain more information about the project;
2. *Credits*, to know the authors;
3. *Statistics*, to see the number of contacts² and the joining forms sent by the students;
4. select the language;
5. the link to the *Archeonet*.

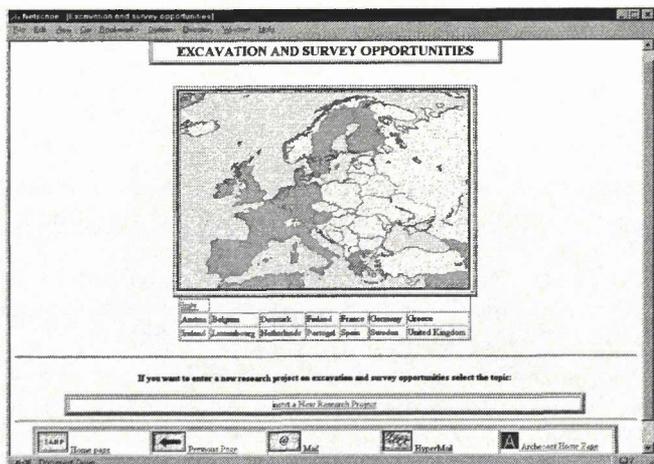


Figure 2.

Starting the research, firstly you see an image of a map of Europe (see Fig. 2); from here you can reach the pages of the countries (see Fig. 2). Now you have two choices: you can make a direct search to reach the *Site Form* and to fill in *Participation Forms*; you can also select a region on the Nation image map.

In the first case the direct search is divided into:

1. Chronology, divided into:
 - 1.1. Prehistory and Protohistory
 - 1.2. Preroman and Greek age
 - 1.3. Roman age
 - 1.4. Late antiquity and Medieval
2. Type of excavation, such as:
 - 2.1. settlement
 - 2.2. cemetery
 - 2.3. sanctuary
 - 2.4. cave excavation
 - 2.5. urban excavation
 - 2.6. underwater excavation
 - 2.7. survey
 - 2.8. pluristratified excavation
3. Site
4. Institution promoting the research
5. Degree of training: this is aimed at students; in this way they can choose between:
 6. field school

7. academic research with educational training
8. academic research

If you select a region on the nation image map, you see its enlarged image with all the excavation sites, showed by a number and explained by a legend (see Fig. 3).

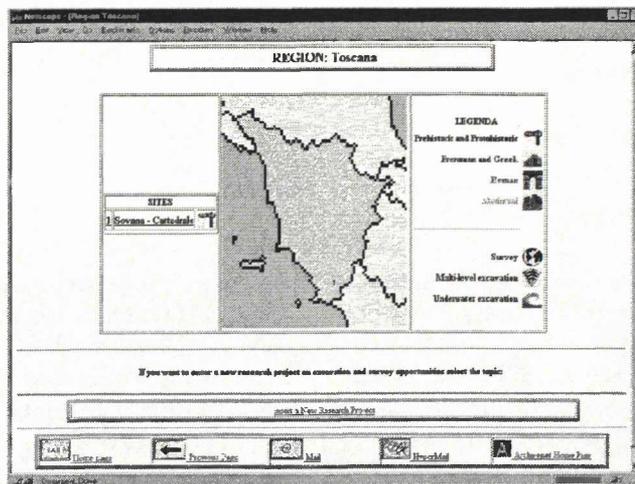


Figure 3.

The sites have been chronologically subdivided into the classification explained before (Prehistory and Protohistory, Preroman and Greek age, Roman age, Late antiquity and Medieval). Each one of them is related to a specific icon and a colour, to immediately identify the site. Near the chronological division there is also the classification into project type with a huge chronological extension (survey, multi-level excavation) and underwater excavation. If you select one of those, you reach a list of the sites; from here you can enter the *Site Form*.

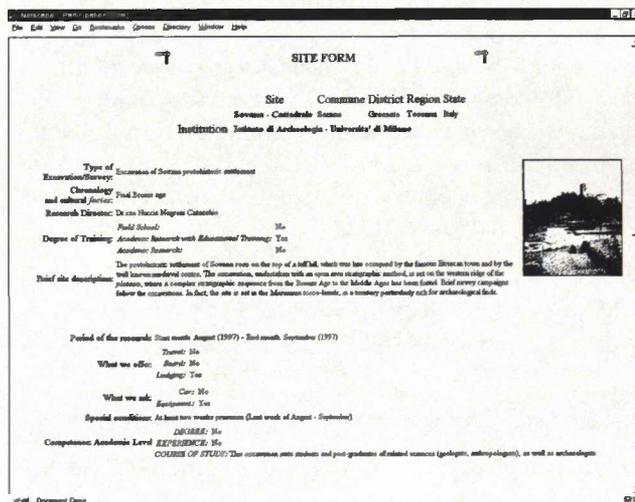


Figure 4.

The *Site Form* is organised into three parts (see Fig. 4). The first one has the "registry data" - such as the name of the Site, the institution and the research director - the degree of training and the specific information about the type of excavation, the chronology and the cultural facies, and a brief description of the site. The second part of the form has all the information necessary to the students, such as length and period of the research, what is supplied, and the competence/ academic level request. The third part contains the *Participation Form* (see Fig. 5), that can be sent directly

by E-mail. The student will then be personally contacted by the research director.

The screenshot shows a web browser window titled 'PARTICIPATION FORM'. The form contains several sections of input fields:

- Personal Information:** First Name (*), Surname (*), Address (*), City (*), State, Telephone, Fax, E-mail, Age.
- Academic Information:** Academic title, Present studies/Plan, Course of study, Experience, Others.

Figure 5.

The screenshot shows a web browser window titled 'STATISTICS'. The page displays several statistics:

- Connections: 441
- Visitors: 363
- New Excavations: 4

 Below these are radio buttons for 'Today' and 'Since 1997-04-05', and a 'Show Contents' button. At the bottom, there is a navigation bar with buttons for 'Home Page', 'Previous Page', 'Mail', 'StreetMap', and 'Archaeological Home Page'.

Figure 6.

Another guide to choosing the site is offered by consultation of the statistics (see Fig. 6), on the participation form sent by the students. You can reach them by selecting the topic *Statistics* in the Homepage. In order to reconstruct the general information about this Internet site it is also possible to see the general statistics, about the type of excavation/survey, the chronology and the region, the number of connections, visitors and new excavations and so on.

Institutions wanting to advertise a new research project can select the topic *Insert a new research project* (see Fig. 7) and can directly E-mail to the *EARP* the form with all the data necessary for the creation of a new site form.

3 Technical Notes

The *European Archaeological Research Project* is an application that builds and manages dynamic Internet pages. That means that this project has a database with all the necessary information that can be queried, managed and updated by processes activated from Internet pages.

This database consists of two main archives, linked together and with other index tables.

The two main archives are:

1. Excavation projects;
2. Participation in the excavation project.

The index tables are:

1. Chronological legends
2. Type of excavation legends
3. Nations
4. Regions.

The screenshot shows a web browser window titled 'NEW PROJECT FORM'. The form contains several sections of input fields:

- Location:** Site Name (*), Municipality (*), District, Region, State, Institution (*).
- Personnel:** Research Director, Degree of Training (Academic Research with Educational Training: C, Academic Research: C), Reference name, Telephone, E-Mail (*), Institution URL.
- Project Details:** Type of Excavation/Survey, Chronology and cultural factors, Brief site description (Description, Number of persons, Base camp/Place).
- Research Period:** Period of the research: (starting month and ending month), What we offer (Trip: YES C NO C, Board: YES C NO C, Lodging: YES C NO C), What we ask (Car: YES C NO C, Equipment: YES C NO C), Report (Number of persons, Titles, How long).
- Competence:** Academic Level, EXPERIENCE: YES C NO C, COURSE OF STUDY.

Figure 7.

For the implementation of the *EARP*, the Informix software *ILLUSTRA* has been chosen, set up on a Unix HP-UX 9000/735 platform. *ILLUSTRA* is an object DBMS linking the potential of a relational database with the possibility of defining new types of data stored inside an archive and managed in the same way as classical data (numerical and alphanumeric). We have defined image data in order to store the excavation site images (gif or jpg files) into a special archive or to store all the icons or the maps used to enrich the appearance of the pages. *ILLUSTRA* databases are managed by SQL language, now a standard in this sector.

The main characteristic of *ILLUSTRA* is the availability of a high number of DataBlades, which can interact and manage data in a new way. Web Datablade has been used to realise the *EARP* Internet site. With this module the system Web server can have dialogue with the *ILLUSTRA* archives. The Web Datablade gives some instructions (TAG) to the Internet pages (in the now classic HTML language); in this way it is possible to execute the SQL directions on the

database tables, the variable managing and other programming operations.

The source code of an EARP Internet page contains either classical HTML statements or an ILLUSTRATE Web Datablade. The Web Datablade receives this page, reads the tags, makes the operations, produces and restores a new page converting its tags into HTML instruction, that can be read by all the browsers on sale (e.g. Netscape, Internet Explorer).

With ILLUSTRATE and its Web Database it is possible to store any kind of information in all the different archives composing the database. In this way we have realised tables containing the subject data of the applications (excavation site, Participation form, legends etc.). These tables store images; in this way the procedure is not bound to read an external file with the expected image residing in some directories of the system hosting the application. The image

is extracted from the proper archive with a select operation (SQL), in the same way of any other classical data.

The HTML Internet pages too are stored within the Web Datablade proprietary tags into a proper table asked every time to extract the page requested by the user. In this way the whole application identifies itself with the database; in fact it finds in the database all the elements needed for its working: from the data to the images and the Internet pages providing the browsing, the insertion, the research and the visualisation of the needed information.

Notes

1 See M. van Leusen, this volume.

2 To verify site visibility and utility we provided for registration not only of the contacts, but also of the visitors, in the sense of people who started the research on the database.

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