



ECODIGIT - DIGITAL ECOSYSTEM FOR THE FRUITION AND THE DEVELOPMENT OF CULTURAL HERITAGE AND CULTURAL ACTIVITIES OF LAZIO

Lucarelli Chiara, INFN - Sezione di Roma Tre







ECODIGIT PROJECT

EcoDigit is one of the projects of the "Centro di Eccellenza DTC Lazio". The goal of the project is to aggregate and integrate expertises in the field of technologies applied to cultural heritage.

EcoDigit aims at enriching the "Anagrafe delle Competenze" project with a middleware platform that is able to facilitate the integration of new data sources and to allow the publication and reuse of services for the enhancement and fruition of the cultural heritage in the Lazio region.





INTRODUCTION

The primary objective of our work (WP4 of project) is to identify and integrate in ECODIGIT a set of advanced applications in the field of cultural heritage, in order to facilitate its use by different types of users.

One of the most important objectives of **ECODIGIT** is, in fact, the integration of new types of data for the enhancement and use of the cultural heritage of Lazio within the **Anagrafe project**.

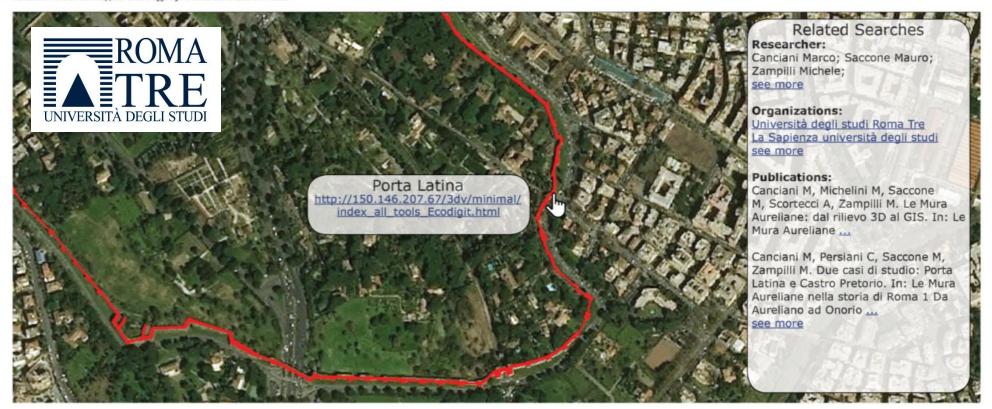




GIS DATA MANAGEMENT

Mura Aureliane web GIS

Caricare un KML su una mappa di base e aggiungere contenuto al click del mouse.







3DHOP (3D Heritage Online Presenter) is an open source software package for creating interactive Web presentations of high resolution 3D models, oriented to the field of Cultural Heritage.

The user accredited in the Anagrafe who wants to share a 3D model will have to adopt, through their access credentials, the standard *.OBJ format.

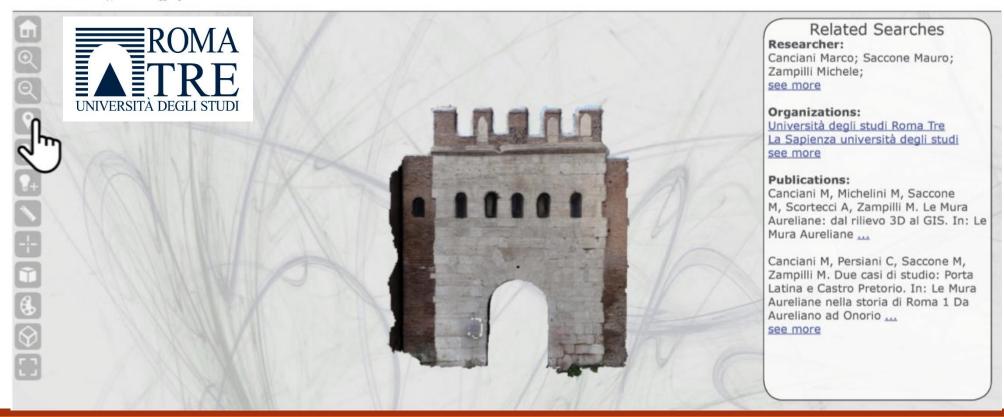
Once the model has been prepared, the user is asked to fill in a form in which the information necessary for the automatic creation of the HTML page that will expose it is gathered.





Mura Aureliane web GIS

Caricare un KML su una mappa di base e aggiungere contenuto al click del mouse.







The functions provided and activated using the system are:

- measure function;
- pickpoint function;
- selection function;
- solid color function;
- camera function;
- visibility function;
- spot function.





Using the **spot function**, provided by the 3DHOP viewer, they are activated:

- the visualization of three-dimensional objects;
- the "features" (which can be both punctual and areal) that allow you to link publications, stratigraphic analysis, GIS data, other models of virtual reconstruction and detailed data sheets on the walls directly to some points or areas of the 3D model. They must be set up right from the start and loaded into the model when filling in the data entry form. These are therefore 3D objects, positioned in relation to the main model and usable to refer to more specific issues or more in-depth studies.





CONNECTION 3D DATA - GIS DATA

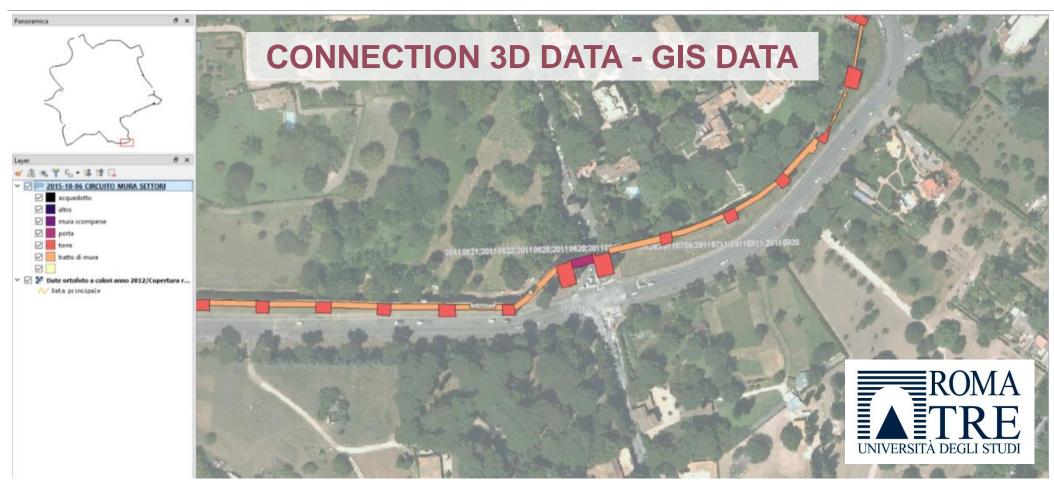
To reiterate the reciprocal integration of data within the project, some measures have been introduced, both in the process of entering data and metadata, and in the descriptions of the use of the two displays, which allow the transition between GIS data and data 3D:

- "features" 2D in the GIS that refer to the 3D models;
- "features" 3D in the models that refer to the GIS data;
- side panel showing suggestions for all other resources contained in Anagrafe.



Ecosistema Digitale per la Fruizione e la Valorizzazione dei Beni e delle Attività Culturali della Regione Lazio









FINAL PROTOTYPE

The final state of this task is an **Advanced Service Prototype**.

This prototype must be able to use a set of advanced visualization tools (such as 3D/GIS/VR) on all type of data coming from all sources in Anagrafe project.

An advanced search mechanism has implemented for searching, for example, information, publication and data. It, also, implements the visualization of results in a Openlayers map.

With this tools the prototype can show to a different type of user the possibility to visualize 3D object and GIS data.





WP4 - Working Group

- CNR-ISTC
- DIAG Università La Sapienza
- Dipartimento di Architettura Università Roma Tre
- ENEA
- INFN Roma Tre
- Università Roma Tor Vergata





THANK YOU FOR THE ATTENTION