P.I.C.A - PORTALE INFORMATICO CULTURALE DELLE ALPI OCCIDENTALI: A MULTIDISCIPLINARY AND INTEGRATED PROJECT FOR CULTURAL HERITAGE

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ABSTRACT

The article concerns the realization of the project named P.I.C.A. (Cultural Informatics Portal of the Western Alps; Interreg IIIA Alcotra), a cooperation between Italy and France that is integrated in a wider strategy of valorisation of the transalpine area. The aim of this work (continuation of a multidisciplinary research entitled *The Marchesato di Saluzzo: an integrated study of the territory*, a project of CeST-Marcovaldo, in collaboration with Turin University and Polytechnic, begun in year 2000) is to preserve and to valorise the cultural heritage through informatics, and has as primary goal to describe and to share such patrimony not only to a transalpine public, but also open the diffusion at a European level: this goal must and can be reached with efficient using computer and network technologies. The creation of a multimedia platform can, in fact, to support in adequate way the exchange of informations, the valorisation of cultural assets that can be recovered, the promotion of cultural activities, the development of research in the areas of interest. In the specific case, the territories involved in the project are in particular the Italian area of the province of Cuneo, with specific wedge in the territories of the historical Marchesato of Saluzzo (this area is situated in the southern part of the Piedmont Region in North West of Italy); the French departments of the Alpes de Haute Provence, Isère and Hautes-Alpes. These areas have in common not only a homogenous geographic picture, but a common cultural substrate strongly characterized, where the alpine territory has always represented a link. So it can be defined a "hinge" territory, face to join rather than to separate areas and different heritages. For these cultural and historical reasons the territories are extremely interesting and are ready for a multimedial integration for management of data and initiatives.

1. INTRODUCTION

The basic strategy of the P.I.C.A. project, approved in April 2004 by the E.U. within the program 'Interreg III/A – Alcotra, misura 2.2' (the project was officially presented during the international meeting 'Giornata ARTEA' on the 16th May 2004 in Saluzzo) aims at drawing two bordering countries together, such as Italy and France, which have in common geographical homogeneous features, but, above all, a strongly characterizing
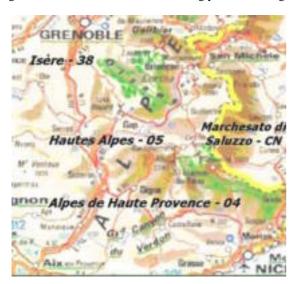
a link between different traditions, historically united by political, economic and hegemonic events.

This territory can be defined, on the whole, as a borderline area uniting (rather than dividing) different areas and heritages. Transferring on Internet the results of the French-Italian researches, so far carried out by means of more traditional methods, enables us to achieve successfully our objectives.

The project partners (together with the geographical areas involved) are the "Associazione Culturale Marcovaldo" of Caraglio (Cuneo, Italy), which is the leader and deals with the terri-

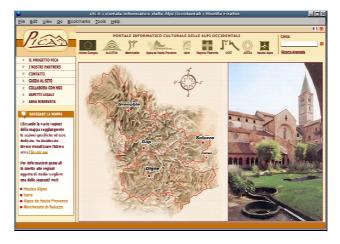Figure 1. P.I.C.A.'s territory and partner

Figure 2. P.I.C.A. project: homepage

tory of the present diocese of Saluzzo, and the French departments of Alpes de Haute Provence, Isère and Hautes-Alpes.

2. AIM AND STRUCTURE OF THE PROJECT

Their aim is to create a cultural portal on Internet for the western Alpine regions, having multidisciplinary and diachronic characteristics with the purpose to preserve and emphasize the common cultural heritage through OpenSource instruments, in order to describe and let such heritage be known not only by those living on the bordering countries, but also at an international level. The achievement of the technical platform, the re-working of the French-Italian database, as well as the realization of the P.I.C.A. website have been entirely carried out and surveyed by ISIline s.r.l. and thanks to the cooperation of D. Demarchi, G. Ponza e G. Demarchi (in this Proceedings, see E. Agosto, D. Demarchi, G. Di Gangi, G. Ponza: *An OpenSource system for P.I.C.A. : a project for diffusion and valorization of cultural heritage*).

This initiative is the logical follow-up of a wide multidisciplinary research which started in January 2000 with the title '*Il Marchesato di Saluzzo: uno studio integrato del territorio'*, devised and scientifically coordinated by the Centro Studi Cultura e Territorio (CeST-Marcovaldo) in collaboration with various departments of Turin's University and with the DiGET of Turin's Polytechnic, which loaded all the results achieved by the Humanistic and Naturalistic University Departments into a database and into an integrated GIS (produced for this purpose on behalf of CeST-Marcovaldo).

In planning P.I.C.A., different operative and methodological experiences have been taken into consideration, based on elaboration, management, information and knowledge diffusion processes (meant as an integrated interpretation of the territory) processes and originated from the fundamental need to understand the historical, economical and social settlement dynamics linked to the natural features (soil exploitation and geological resources) which obviously influenced the choice of an area to be inhabited.

Therefore the castle, the abbey, the church, the settlements etc. have not been considered as isolated 'monuments', but as closely related to their geo-territorial context and its vegetation.

Figure 3. San Massimo abbey: medieval capital

These research fields, though heterogeneous, form autonomous research sectors: however, they can be easily integrated and considered indicative of the changes and the use of the territory from various points of view. P.I.C.A.'s partners have placed to

everybody's disposal all the digitalized archives concerning bibliographical, archival, archaeological, geomorphic, pedological sources, as well as those concerning historical cartography. Moreover, information derived from territorial surveys effected on the spot, concerning the existence of natural resources of interest for mining and metallurgic activities, considered both from an archaeological-historical point of view (power control, power archaeology) and from the more strictly geologic one (regarding landscape and mineral deposits) have been made available through the various operative and methodological experiences adopted in this project.

P.I.C.A.'s scientific coordination, as far as humanistic and naturalistic disciplines are concerned, has highlighted a strong cultural exchangeability with the beyond borderline areas represented by the above mentioned partners, with whom a consistent selection work of each database is being carried out, with the purpose to offer a well-articulated and complete cultural product on the Internet platform. P.I.C.A. is outstanding because of its strong interdisciplinary features in so much as it provides a lot of research and application hints for these areas, which show, beside a wide variety of territorial characteristics, also a close link to mountainous zones; obviously the latter are meant not as boundaries or barriers, but as gateways and exchange fields. In addition to the archive and selection work concerning the data present in the different database, several surveys are being carried out on the territory in order to document, file, photograph and supply geological references about the present situation, for instance the ecclesiastical, fortified and transformation structures (at present L. Nejrotti is working for this section of territorial history and for the connected didactic files as far as the Italian side is concerned) as well as the mines, the quarries etc.

Such data are compared and integrated by means of all disciplines and reorganized thanks to a computerized system in order to increase their diffusion and availability. Of course the progress of informatics and network instruments has enabled us to achieve this aim much more easily.

The creation of a multimedia Web platform can give adequate support to the exchange of information, the evaluation of valorization of cultural heritage, the promotion of cultural activities, the development of researches in the Alpine zones endowed with a highly precious naturalistic and historical heritage. In order to begin working at the design of the portal the team of techhnical experts have asked all their partners to devise a 'monument file' which may act as a model and collect the basic peculiarities of the monument itself. To make this first stage easier, it seemed suitable to start from the religious patrimony, plentiful in all the areas of the partnership.

After planning the file and completing the processing system it is possible to proceed to the implementation stage by means of the addition of various data such as geo-sites, botany, cultural anthropology, geology etc. All these data are georeferenced and it is possible to look them up in the cartography prepared for this purpose. Then the visitors of the P.I.C.A. portal can easily build their map thanks to an advanced informatic system following chronological and/or thematic criteria and sorting the data into two different channels, the former to exploit the didactic tourist area, the latter to access directly the data base which are the scientific basis on which the portal itself is founded.

It is possible to surf inside the map choosing the required period on the chronology bar (from the geological eras to the contemporary age) and selecting the structure types (castles, churches, geo-sites etc.) out of the indicated ones; from the geographic and distributive viewpoint, it is possible to choose one or more territories among those considered in the project.

Moreover, owing to the precision of the loaded data one can change the map scale in order to obtain the greatest possible detail. Otherwise one or more structure types can be selected

without specifying the chronology, so as to view what has been chosen on the map diachronically. This type of surfing has been devised to make the accessible information extremely dynamic since it enables the user to read the territory cross-referencing both humanistic and naturalistic data and integrating such reading with a set of didactic files really enjoyable and scientifically precise, exemplified with a series of drawings (realized by L. Terzi).
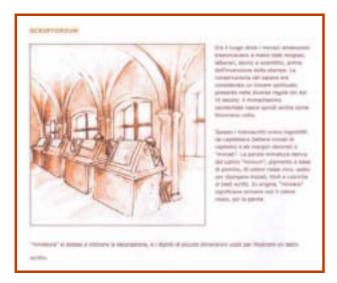

Figure 4. P.I.C.A.'s didactic page: example

It is also possible to access directly the French-Italian data base, in order to get all the information useful for an advanced research, by viewing the georeferenced data on the map and thereby helping those who, although being interested in single disciplines, wish to have a full-relief description of a certain territory.This informatic platform enables people to cross-reference and compare a high number of data and information within collated analyses increasing remarkably the opportunities of research, synthesis, knowledge and tour itineraries

Figure 5. San Massimo abbey: romanic bell-tower

The aims of such a wide project are manifold:
- the first concerns the research (essential for a correct operation of knowledge diffusion), meant as synergy and debate among the various French and Italian researchers, experts of specific sectors but eager to read the territory as the result a unitary anthropic evolution in which the various natural resources played a relevant role for the settlement choice and the economic development;
- the second aim is to give useful hints to local administration boards to increase and better the knowledge of the territory and its control;
- the third concerns the improvement and the spreading of information and the didactics meant as the result of an easily accessible and correct scientific research. The platform can help the consultation of series of cultural itineraries, both humanistic and naturalistic, planned also taking into consideration the territorial homogeneity and easily accessible also to a heterogeneous public thanks to differentiated channels, without giving up scientific reliability. Relating the problems about the preservation and positive exploitation of resources to the problems concerning the tourist and economic necessities is of paramount importance; in fact the 'container' of the environmental heritage (culture, landscape etc.) deserves great attention as it encourages the request of a more responsible and intelligent tourism;
- the fourth point concerns the possibility of developing new solutions thanks to the application of Web OpenSource technologies aiming at an integrated management of database and cartography.

Figure 6. Diachronical choice and selected arguments

3. CONCLUSIONS

In conclusion, it is necessary to stimulate the implementation methods of all that can be useful to launch and develop cultural tourism, which is nowadays of the utmost relevance.

As regards the P.I.C.A. project, it is obvious that networking data and information enables more and more users of all kinds to access them; therefore the use of OpenSource technologies is important because they are inherently user friendly and their effectiveness makes quite extensive projects feasible. So it is possible to access or implement the data bank also thanks to the control or selection carried on by a special French-Italian scientific committee.

Concerning the outcomes on the territories represented by P.I.C.A.'s partners, we want as archaeologists (and therefore in

possess of a humanistic education), to highlight the remarkable usefulness of this multi media tool which can provide new research hints and offer original study and project elements for the administration of that cultural heritage often considered minor. We think that the actual effectiveness of the interdisciplinary criterion and development of the territorial elements has been widely proved.

Therefore we wish to emphasize how such a complex plan concerning the border area hereby considered is greatly furthered by the synergy which has emerged among the various partners responsible for the different sectors, both humanistic and naturalistic, and the computer experts who perform a great connecting work to publish on the Web products organized in the best possible way.

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