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Preservation of ancient MEDiterranean sites in terms of their ornamental and building STONE: from determining stone provenance to proposing conservation/restoration techniques

Informe

Información del proyecto

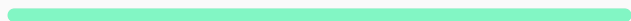
MEDISTONE

Identificador del acuerdo de subvención:
15245

Proyecto cerrado

Fecha de inicio
1 Enero 2006

Fecha de
finalización
30 Junio 2009



Financiado con arreglo a

Specific measures in support of international cooperation: Specific activities covering wider field of research under the Focusing and Integrating Community Research programme 2002-2006.

Coste total

€ 1 356 040,00

Aportación de la UE

€ 1 043 120,00

Coordinado por

BUREAU DE RECHERCHES
GÉOLOGiques ET MINIÈRES



France

Este proyecto figura en...

Final Report Summary - MEDISTONE (Preservation of ancient MEDiterranean sites in terms of their ornamental and building STONE ...)

The conservation of archaeological sites around the Mediterranean basin constitutes a major challenge for the future. Up to now, studies of archaeological sites have tended to lack sustained follow-up over time, and not interacted sufficiently with other similar sites to enhance the results of research. Three archaeological sites - two listed within Unesco's World Heritage List, were selected by the 'Preservation of ancient Mediterranean sites in terms of their ornamental and building stone: from determining stone provenance to proposing conservation/restoration techniques' (Medistone) project. Site selection was based on priorities for site preservation and tourism indicated by those non-European participating partner countries where a demonstrable scientific challenges and possible breakthroughs for site preservation have been identified.

When the Medistone project began, it proposed to contribute to the knowledge and the conservation of three of the most important ancient sites in North Africa (Volubilis in Morocco, Djemila in Algeria and Alexandria Lighthouse in Egypt) by the mean of three research axes and corresponding objectives:

- Identification of stones and determination of their provenance (objective 1 / work package 1) in terms of geographic areas and, if possible, of the former quarry sites; till now, the region of origin of numerous stones used in constructions and ornamentations dating from antiquity, both in the west and the orient (and often reused in the Middle Ages) remained poorly defined or even unknown.
- Diagnosis of the conservation state of the stones (objective 2 / work package 2) at the sites; whilst the causes and mechanisms of the deterioration to stone are relatively well known for temperate European climates, the semi-arid continental climate of the selected sites, characterised by strong thermal amplitudes, high evaporation and strong wind action, together bring about specific weathering and alteration requiring more thorough investigations.
- Development of appropriate conservation / restoration techniques (objective 3 / work package 3); the objective is to provide answers to the main problems regarding stone conservation / restoration that are

liable to be met at the selected sites; it involves developing techniques for reassembling fractured and fissured stones; this phase is based on European know-how and will take into account the climatic environment.

This study globally succeeded in identifying the stones of the Alexandria lighthouse and determining their provenance areas. Besides the accomplishment of this objective, the whole of the gained data constitutes a knowledge improvement available for further investigations and studies dealing with Egyptian stones.

This study globally succeeded in identifying the ornamental and building stones of Djemila and determining their provenance areas. For building stones, future complementary fieldworks could permit to complete the results by validating the provenance of the lithotype 4 and determining the one of the minor lithotypes. For decorative stones, a more detailed survey of the Algerian various marble quarries could constitute a great challenge to complete the understanding of the Marmora Romana. First and foremost, the whole of the gained data constitutes a knowledge improvement available for further investigations and studies dealing with archaeology and conservation of the ancient site of Djemila.

In conclusion, the three previous studies globally succeed in the diagnosis of alteration and conservation of the stones on the three focussed sites. Besides the accomplishment of this objective, work now needs to be done to implement the management of the conservation of the sites and give new possible orientations in order to preserve their global vision and also to increase the safeguard of parts of them which need to pay attention without a too much important development of budget.

About twenty publications communications and publications were undertaken during the project. One other paper has been submitted and three others are still in progress: one about the stones of Alexandria lighthouse, one about the compatibility between stone and products by using the dilation method, and another about the technical work and restoration in the three archaeological sites.

Documentos relacionados



Final Report - MEDISTONE (Preservation of ancient MEDiterranean sites in terms of ? ornamental and building STONE: from determining stone provenance to proposing conservation/restoration techniques)

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