

**Exomuseums (site-based interpretation) and local museums:
key educational facilities for teaching Earth Sciences.
Proposed initiatives for sharing strategies across Europe**

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Local museums can be an important educational tool in Earth Sciences. Recent growth of local museums and exhibitions, as well as site interpretation centres covering different aspects of local Geology, has played an important role in raising public awareness of the value of geological heritage. In this context, palaeontology has played a key role due to a widespread interest in fossils and prehistoric life - especially dinosaurs and other large extinct animals. A proposal is here presented for the first time at a European level to unify criteria and strategies for the definition, creation and management (Geoconservation) of local *in situ* museums. A distinction is made between (1) *Exomuseums*, i.e. palaeontological sites or outcrops developed for visitor access, including educational (2) Local museums, established in towns and villages close to such sites and housing collections of geological materials and information from the area around.

A review of some cases of local palaeontological museums in United Kingdom, as well as in different regions of southern Europe, in Portugal (Penha García); Spain (Aragón) and Greece shows the different role played by different kinds of museums and local exhibition halls and points. The presented proposal includes the main features and requirements of both types of museums, in order to promote their protection and Geoconservation. The final aim would be the creation of a European network of local museums and exomuseums marked by their especial relevance and educational interest, in parallel to the European Geoparks Network.

EXAMPLES

In the UK, small community-based museums are unusual and many institutions form part of, for instance, larger county based museum services, with a much broader remit than simply local geological heritage. Site-based facilities, however, are much more widespread and range from simple interpretation boards to sophisticated interpretation centres. Most, however, do not involve significant local community participation and have been established by national and regional conservation or administrative bodies. Exceptions do exist, however,

and include, e.g. the Charmouth Heritage Centre, within the Jurassic Coast World Heritage Site, managed by Charmouth Parish Council. Other examples have been established by commercial organisations as part of a process of improving community relations (e.g. Yorkshire Brick) or as part of the development of a tourism business (e.g. Kents Cavern, Torquay, Devon). A key factor here is the pattern of land ownership in the UK, where most areas remain in private hands and as such communities can have little real influence over their development and use. National and regional organisations such as conservation agencies and trusts, as well as local governments at district and county level, however, may own or can purchase land and create such facilities. An important designation in this respect in the UK are 'Local Nature Reserves' which aim to provide opportunities for communities to enjoy and learn about their natural heritage – although, again, their direct participation in the sites management may be limited.

In Spain and Portugal, recent growth of local museums and exhibition halls, in the open field as well as in small localities covering different aspects of Geology, has played a relevant role to show the History of Earth, as well as to create public concern on the value of geological heritage. Within this context, palaeontology clearly stands as a first order factor. The revision of some cases of local palaeontological museums in the regions of Aragón (Spain) and Penha Garcia (Portugal) shows the different role played by different kinds of museums and local exhibition halls and points: On one side, the local, small ones, generally located in small towns or villages around the outcrops (= *in-situ* museums) or directly on the outcrop in the open field (exomuseums) holding a higher educational potential and more clearly directed to reduced school and tourist groups, and on the other side, the larger museums usually in towns (= *ex-situ* museums) suitable for holding bigger collections and attracting wider segments of population.

In Greece, since the early 90s, within the frame of general environmental quest for sound approach to environment, a new type of geological museums was created - «*in situ* Geological Museums». That is to say, important sites to be preserved for the purposes of science and research, education,

culture, geotourism, aesthetics and recreation as well as for their own value. Some special cases of *in situ* Museums, such as those of Vrissa (Lesvos); Koroni (Peloponnesus) and also the exomuseums of Pikermi (Attica) and Katharo (Creta Island) are revised.

The issues that directly arise are:

- 1) How can we further increase the role of Traditional geological museums (*ex situ*)?
- 2) Which innovative strategies, including management, research and education should be promoted?

3) Which measures should be taken concerning legislation, economy, premises, and communication with the view to general development of the museums?

The creation of a European network of local, *in-situ* and exomuseums is proposed here, in parallel with the European Geoparks Network, to unite such projects at a European level and share good practice as well as to create a new international initiative to promote geological heritage and its conservation in the spirit of Local Agenda 21: "*Think globally, act locally*".



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PROCEEDINGS



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