

THE PROTECTION OF THE GEOLOGICAL HERITAGE OF EMILIA-ROMAGNA: A PRELIMINARY OVERVIEW ON THE STATE OF THE FACT

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KEY WORDS: *geological heritage, census, regional legislation, territorial protection, parks and natural reserves.*

THE GEOLOGICAL HERITAGE OF THE EMILIA-ROMAGNA REGION

The Geological Seismic and Soil Survey (SGSS) of the Emilia-Romagna Region set up the census of the geoheritage in 1998. The census is a work in progress both for the contents and for the number of the sites scheduled. At present, SGSS has identified 711 "elements of the geoheritage". The territorial extension of the scheduled sites is about 53.000 hectare, which represents 2,5% of the regional territory.

The census led to the identification and selection of about 90 sites which represent "geosites of regional significance".

In collaboration with the Speleological Federation of Emilia-Romagna, SGSS also set up the census of the hypogean geoheritage (caves). At present, 775 caves have been identified and 41 have been selected as hypogean geosites of regional significance. All the data of both census are available on the SGSS website in the section dedicated to web-gis.

The status of protection for the hypogean geoheritage is not covered by this presentation.

THE LEGISLATIVE FRAMEWORK

In 2006 Emilia-Romagna Region approved a regional legislation on the protection of the geodiversity ("Norme per la conservazione e valorizzazione della geodiversità dell'Emilia-Romagna e delle attività ad essa collegate" (9/2006). This legislation set up the cadaster of the geosites, which includes the natural hypogean geosites, because it recognizes the public interest of the regional geodiversity and the geoheritage as repository of scientific, environmental, cultural and touristic-recreational values. The legislation states the difference between geosite and element

of the geoheritage and it defines the procedure for the formal institution of a geosite. Furthermore, the legislation provides that the cadaster of the geosites be included in the framework of the cognitive tools for land and urban planning. This legislation has certainly encouraged the activities relating to the promotion of the geological heritage but has not yet led to the definition of criteria and standards for its conservation, protection and management. To ensure the full implementation of the legislation, the Region has still to provide the guidance document on the conservation and enhancement of geodiversity in Emilia-Romagna.

It is now necessary to proceed with official institution of the "geosites of regional significance" that have to be submitted to the recommendation of the Scientific Committee headed by the regional law 9/2006 to this procedure. Afterwards, Emilia-Romagna Region will submit a selection of the regional geosites to the Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA) that is responsible for the National Catalogue of the Geosites.

At present, no geosite has been officially instituted. For this reason, the protection of the geoheritage in Emilia-Romagna is strictly connected with other forms of territorial protection and, in particular, those in act for the natural heritage. In other words, the Emilia-Romagna's geoheritage is under protection only if it is included in the existing protected area (national and regional parks, regional reserve, etc.).

STATUS OF THE PROTECTION FOR THE EMILIA-ROMAGNA GEOHERITAGE

At present, the protected areas of Emilia-Romagna Region are:

- 2 National Parks (Law n. 394 del 1991)
- 17 State Reserve (Law n. 394/1991)
- 1 Interregional Park
- 14 Regional Parks (Regional Law 6/2005)
- 15 Regional Reserve (Regional Law 6/2005)

33 Areas of ecological re-balancing (Regional Law 6/2005)

3 Natural and semi-natural protected landscapes (Regional Law 6/2005)

153 sites of Natura 2000 network (SIC - **Sites of Community importance and ZPS- Special Protection Zone, instituted in accordance with the Council Directive 92/43 EEC 21/05/1992 received** at regional level by L.R. 7/2004, L.R. 6/2005 and D. G. R. n. 1224 del 28.7.08.).

It is important to note that the laws that rule the listed protected areas do not make any distinction between the natural heritage and the geoheritage. However the geoheritage is mentioned as object to be protected in a lot of specific protected areas: the Parks of Vena del Gesso Romagnola, Gessi Bolognesi, Appennino Tosco Emiliano, Delta del Po, Sassi di Roccamalatina, Stirone e Piacenziano; and the Reserve of Salse di Nirano, Contrafforte Pliocenico, Dune fossili di Massenzatica, Sassoguidano, Fontanili Corte Valle Re, Grotta di Onferno, Rupe di Campoterra and Monte Prinzerà. Integrating data on geoheritage within the data provided by the colleagues of the Park Survey has made it possible to define the consistency of the geoheritage which enjoy some form of protection.

In the areas protected by the national law n. 394/1991 (National Parks and State Reserve) are comprised 9 geosites and 76 elements of the geoheritage. In the areas protected by the regional law n. 6/2005 (the rest of the protected areas listed before) are comprised 59 geosites and 302 elements of the geoheritage.

At present about 75% of the geosites enjoy some form of territorial protection, while only 50% of the elements of the geoheritage are included in a protected area.

AN APPROACH TO DEFINE PRIORITY IN GEOSITE INSTITUTION

Define the priority criteria for the establishment of geosites means finding the way to identify which of the selected geosites are at higher risk of damage or loss as a function of their state of preservation, the risk of degradation to which they are exposed and the state of the protection to which they are subjected. The state of preservation and the risk of degradation are two elements evaluated by the census of the Emilia-Romagna geosites. The state of the protection is the subject of this first study.

The long-term objective of the "geosite project" of the SGSS is to attain the formal institution of all the geosites selected. As illustrated before, the regional law 9/2006 is the legislative tool for the official

institution of a geosite in Emilia-Romagna. The law identifies in a Scientific Committee the authority competent to take a decision about which of the 90 geosites of regional relevance have the requisite to become a geosite of the Emilia-Romagna Region.

Starting from the previous evaluation on the status of geoheritage protection in Emilia-Romagna, it becomes clear that even if a great part of this heritage benefit from some form of protection the rest is totally lacking. For the latter therefore there is an urgent need to provide for their formal recognition as required by the regional law. For the geosites placed out of the protected area we aforementioned, the law establishes the form of protection defined by the instruments of urban and territorial planning.

It is now necessary to verify in which way the geoheritage is included in the main instruments of regional territorial planning of Emilia-Romagna (Regional Territorial Plan –PTR; Regional Territorial and Landscape Plane – PTPR; Provincial Territorial Coordination Plans –PTCP). At present, every provincial administration has requested to the SGSS of the Emilia-Romagna Region the census of geosites for inclusion in their Provincial Territorial Coordination Plans. On this side, with the Province of Reggio-Emilia we started a very fruitful process of sharing data that brought to the acquisition of all elements of the geological heritage in the Provincial Territorial Coordination Plans.

CONCLUSION

The delivery to the provincial governments is the best tool so far identified to achieve the protection and enhancement of all areas identified in the Geoheritage Project of the SGSS. At the local level, all elements of the geological heritage are an important part of the territorial tissue who deserve to be treated, as the others, as it has been done in the Province of Reggio-Emilia.

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