



The impact of human activities on the natural geoheritage and its effects on geodiversity. The case of the Italian karst areas.

Lamberto Laureti

University of Pavia, Scienze della Terra e dell'Ambiente, PAVIA, Italy (laureti@unipv.it)

In Italy the karst environments represent nearly half of the mountainous areas, with typical aspects characterized by a strong articulation of the relief, often induced by recent tectonic evolution, with closed depressions and plateaus, steep slopes, sharp interface soil-rocks and soil sediments inside the fissures and rock cavities.

From the middle Holocene the human impact in the Italian karst areas cleared the original extensive sclerophyllous forests in order to utilize space for grazing and agriculture, but favoured in this way the erosion of the soil cover and, in time, caused a nearly complete desertification of many mountain slopes.

The forms of impact were and are represented by slope terracing for intensive agriculture, large use of fertilizer and pesticides, stocking of bio-masses of cattle, pigs and chickens in small areas, opening of quarries and mines, besides other interventions.

Among all the forms of human impact, the mining and quarrying activities are responsible of high deterioration of the karst environment as a consequence of great rocks excavations and movements, together with metal polluted waters leaking.

After the closure and the abandonment of the nearly all Italian metal mines, especially in Sardinia but also in the Alpine ore districts, the quarries excavation is really the main threat towards the Italian karst areas, because of the increase of the stony materials international market. By this regard, in this poster are showed the case studies referring to the Lombard Prealpine karst plateaus (where many interesting caves were destroyed) and to the karst systems of the Apuane Alps (Tuscany), where the quarries of the famous "Carrara marble" endangered the same great "Antro di Corchia", today preserved by the creation of a natural park.