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Southern Tunisia as an example of international partnership in cultural and geological heritage conservation

M. Contessi (1), L. Cantelli (1), F. Fanti (1), G. Gabbianelli (1), and H. Mohsen (2)

(1) Department of Geological and Environmental Sciences, University of Bologna, Italy (michela.contessi2@unibo.it), (2) Office Nationales des Mines, Tunis, Tunisia

National Geoparks initiatives are essential strategies to enhance the value of Earth's heritage and to promote a regional sustainable socio-economic and cultural development. As an example for geological heritage development, an ongoing partnership between the Department of Geological and Environmental Sciences of the University of Bologna (Italy) and the Office Nationales des Mines (Tunisia) attempt to ensure divulgation and preservation of the geological, geomorphological and archeological values of the Tataouine region in South Tunisia, with the final goal to create a Geopark.

In this region, different environmental and cultural heritages that comprehend paleontology, geomorphology, stratigraphy and archeology coexist. Mesozoic beds that crop out extensively in the Tataouine region known since the beginning of the 20th century as Continental Intercalaire, yield numerous dinosaur and other vertebrate remains as well as tracksites. Moreover these Mesozoic deposits have been intensively modified for centuries by the local populations who created complex systems of artificial terraces, called jessour, in order to retain rainwater in the arid Tunisian climate and to exploit the scarce farm soil. These human artifacts deeply modified the morphological and hydrogeological landscape and created a unique cultural value that need to be preserved. From the perspective of science and conservation, a well-documented geological inventory of the fossiliferous sites has been produced and will be available as an electronic database. In particular, the Beni Ghedir valley, near the Goumrassene village, has been chosen has the main Geopark location as it includes, in a restricted area, a perfect example of jessour artifacts together with some well-preserved Ksour (ancient storage structures) and nicely preserved fossil sites. An interactive map of the artificial terrances has been produced using the ArcGis technology, in order to highlight the connection between the valley morphology, the jessour systems and the hydrologic framework.

Concluding, we believe in the importance of the preservation of geological and cultural diversity and the need to establish international collaborations in order to assist the national and regional experts to fully understood and protect the Tunisian sites, as economic and cultural development of the country.