The role of archaeological sites in conveying geoheritage awareness: a case from Southwestern Sardinia (Italy)

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In a world where the interaction between humans and the physical landscape is deep and widespread since prehistory, geological and cultural heritage are still very much separate and addressed by experts and professionals coming from very different fields. The scarcity of effective communication channels impairs shared experience and fruitful collaboration in enhancing geosite awareness in the general public. When integrated approaches appear, they often still concentrate on the cultural narration using geological and environmental information only to support a palimpsest very much human-centred. Attention on integrated divulgation of the geological and natural processes surrounding cultural sites is still lacking. In fact, there is the possibility of walking the opposite path: that is, of using cultural heritage in order to inform the public and divulgate past and current geological processes acting on the wider landscape. This is especially true in highly dynamic environments, where geomorphological processes visibly modify cultural landmarks over time. In this sense, coasts are the ideal setting. They have represented one of the preferential places for human settlement since the dawn of civilization. Coastal environments show strong, complex geomorphological dynamics subject to cycles and variations over time which can be recorded in many different archives, some readily understandable by non-experts.

In this contribution we bring examples of how the interaction between cultural heritage and geoheritage can be used to enhance the communication of geomorphological issues. The coastal area of the southwestern portion of Sardinia (Italy) is the location of numerous archaeological settlements, ranging from Mesolithic shelters to wide, majestic Punic and Roman trade ports and cities. Sea level rise since the Last Glacial Maximum has widely interested this territory, and its effect is very well recorded in archaeological contexts. Here, variations in topography and geomorphology are changing the contexts of the sites themselves and sometimes threat their integrity through different geological and geomorphological hazards. The development of narrations focused on explaining these processes, using the archaeological evidence as a tool to convey geological concepts, might raise geological awareness in the general public and spread knowledge about the geomorphological history and features of the local and global landscape.