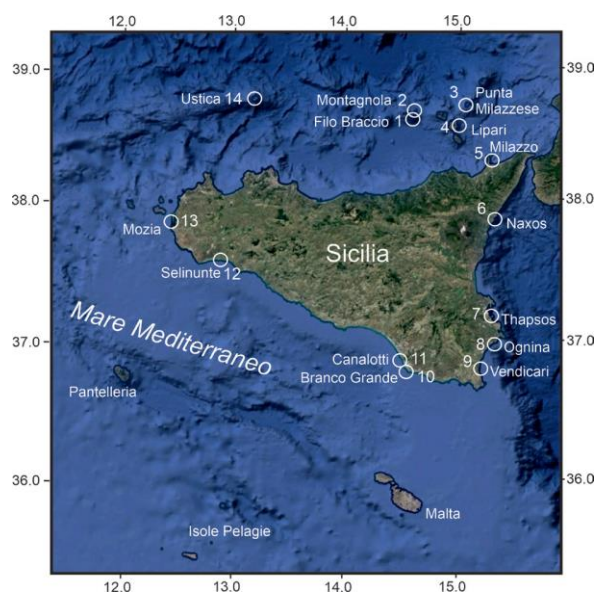


Aumento del livello marino e siti archeologici costieri: i possibili scenari in Sicilia fino al 2150

Summary

Sea level rise is one of the most insidious effects of global warming. In this context, Sicily, due to its unique position in the centre of the Mediterranean basin, is particularly exposed to the multiple effects of climate change. In this brief study, we aim to provide a summary of the exposure to climate risk and the likely future coastal settings for some of the main archaeological sites located along the coastline of this region, often on sensible geological and geomorphological environment, which are particularly vulnerable to sea level rise. Based on the analysis of multidisciplinary data, including climate projections provided by the IPCC, which have been revised for the contribution of vertical land movements by high-resolution geodetic and topographic data of the coastal strip, we present flooding scenarios due to potential marine ingression up to the year 2150. In particular, we identify 14 main sites where human settlements have been recognised since the Bronze Age. As example sites, the island of Mozia on the west coast of Sicily and Marzamemi on the east coast are briefly discussed. These sites have undergone major morphological changes of the coastline since the beginning of settlement and, particularly in the last century, erosion, shoreline retreat and subsidence have a significant impact on their current and future conservation. Adopting strategies shared between scientists, archaeologists and political parties can help to identify best practice for the protection and conservation of coastal archaeological heritage sites in parallel with those on global warming, to take appropriate adaptation measures.



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