

Climate change impacts on cultural heritage: the case study of the Trabocchi Coast (Italy)

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Recently, it appeared increasingly necessary to study and assess the effects of climate change on the world as we know it. The increasing extreme weather phenomena observed in the Mediterranean basin are only one aspect of the problem that finds broader response in what are the effects on population, structures and infrastructure. Each of these aspects is itself characterized by a wide variety of issues, which are leading studies increasingly toward a multidimensional assessment of impacts (economic, social and environmental).

In this study we focus on the impact related to the increase in critical weather events in a specific area characterized by typical vernacular architecture: the "trabocchi" of the Italian Adriatic coast, whose identification as cultural heritage is the result of historical events and social dynamics closely linked to the collective imagination and for which inclusion as intangible cultural heritage in the UNESCO World Heritage List has been requested. The weather event investigation was performed considering both long-term large-scale (using ERA5 dataset) analysis and short-term small-scale (models and ground-based sensors) analysis. Results provided an overview of the event dynamics and enhanced understanding of the area's vulnerability factors to extreme weather phenomena, as well as emphasized the need, in order to protect the integrity of the asset, to study environment changes and to plan concrete actions aimed at conservation.

<https://www.youtube.com/watch?v=SVYkBYFsywo&list=PL6lIdeFgZOF1Tsw0JUD3yZezJZ0yI2hif>