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ABSTRACT BOOK

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## Understanding the relationship between humans and the coastal environment in the deep past: the consilient approach of SPHeritage Project

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An interdisciplinary approach is necessary to investigate the relationship between human peopling and the coastal environment during Prehistory. We present the challenges faced and the strategies adopted in the framework of the SPHeritage Project, which aims to understand how Palaeolithic groups living along the Ligurian-Provençal coastal area, in the NW Mediterranean, responded to Pleistocene sea-level fluctuations and the related changes in the littoral environment. The Balzi Rossi study area contains a unique complex of Palaeolithic sites of archaeological significance, as well as sea-level indicators of the last 3-4 interglacials, within a rocky coast geomorphological setting. The evidence of Palaeolithic settlement and exploitation of marine resources provides opportunity for the study of human adaptation associated with sea-level change.

A number of major challenges had to be tackled, though, to achieve the goals of this Project. Large portions of the local archaeological sequences were removed in earlier investigations that began at the end of the nineteenth century, during which time an integrated approach of natural and human sciences was lacking. Moreover, a standardized assessment of the palaeo sea levels had never been performed in the area, hampering the possibility to reconstruct the geographical and ecological characteristics of the environments associated with early human settlements. Finally, the age constraint of the investigated sequences was mostly based on old technologies, with consequent limitations in reliability and accuracy of chronology.

The strategies adopted to overcome these issues were based on the synergic work of a multidisciplinary team with diverse expertise. Strategies included novel stratigraphic correlation between sites, new and extensive age constraint of the marine and terrestrial deposits using multiple and innovative methods, and the detection of past shorelines on the continental shelf through geophysical surveys and sediment coring.

Our preliminary data are promising, and suggest that a consilient approach can provide valuable insight on how relative sea-level change and consequent shoreline fluctuations can drive settlement strategies and human migration/dispersal patterns.