



Geomorphological and sedimentary record from Poseidi, N. Greece and relationship with Late Bronze and Iron age settlements

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Coastal geomorphological features from Poseidi, Chalkidiki, N. Greece have been studied in order to classify the Late Pleistocene and Holocene formations that prevail across the coastal zone of Cape Poseidi. Carbonate cementation in the littoral shelf (beachrocks) indicates phases of coastal instability. The adjacent conglomerate formation and the stratigraphical characteristics of the backshore sedimentary sequence define the geomorphological setting of the human occupation in the area that dates back to 3500 BP. Eretrians settled the area (Pallini peninsula) during the Iron age, while Poseidi was already used for ritual ceremonies of god Neptune. Although ancient Mendi was built on an approximately 100m-high hill, its so-called "Suburb" by Thucydides was reaching the shoreline, and its cemetery was excavated in the beach sediments. Palaeo-shorelines have been reconstructed using bathymetry data and submerged fossil coastlines. The submerged beachrock horizons are spotted northwards at 1m, 1.7m, 2.4m and 3.6m depth as well as the formation occupies the swashzone at two subsequent separated beaches southwards near ancient Mendi. Tectonic movements were also evaluated and reconsidered in relation to coastal archaeological sites for the reconstruction of the geomorphological setting. The dynamic wave regime at Cape Poseidi and the sedimentary characteristics seem to have played a prominent role during stages of relatively stable sea level and influenced the human occupation in the area.