

Late Holocene sea level evolution of Paros Island (Cyclades, Greece)

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Different types of sea-level markers have been used in the Eastern Mediterranean in order to assess Late Quaternary coastal evolution and relative sea-level (RSL) changes. RSL reconstructions are useful for various researches, ranging from the investigation of crustal movements to the calibration of earth rheology models and ice sheet reconstructions. GIA models have often been employed to identify stable and unstable areas and deduce tectonic rates through comparisons with observational data.

It is generally assumed that most Cycladic islands (Aegean Sea, Greece) are affected by a gradual subsidence, ascribed to the thinning of the local earth crust and to isostatic processes that accompanied the post-glacial rise in sea level. The absence of morphological coastal features indicative of uplift, such as marine terraces or benches, elevated beachrocks, marine notches, or raised Quaternary coastal deposits, are often interpreted as an absence of local uplift.

Although Paros Island presents great interest in terms of geoarchaeology, the evolution of its shoreline and RSL changes have not been studied in detail. The Island lies in the center of the Aegean Sea, in central Cyclades. In order to elucidate the RSL changes in the area and place an improved chronological constrain for the Late Holocene, we present new RSL index points, derived from sediment cores from Paros Island in combination with published geomorphological and sedimentological data from Paros and Naxos Island. Our results are further compared with sea-level predictions from two different GIA models in an attempt to better quantify the tectonic regime of the wider study area.