



Palaeoenvironmental investigations in the vicinity of Ancient Phaistos (Crete, Greece): preliminary results

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The present work aims to present the preliminary results dealing with the palaeoenvironmental evolution of the western part of the Messara plain, South Crete, during Holocene, by focusing on the interactions between human occupation from early Neolithic time and the geomorphological and sedimentological conditions. The well-known Minoan sites of Phaistos and Agia Triada are situated in the study area (Phaistos ridge) and the ancient port of Kommos, 4km westwards, is suggested as the respective port (La Rosa, 1992). In addition, the study of Fytrolakis et al. (2005) suggests an older location of a harbor from Neolithic time in the “Timbaki gulf”, position today situated inland, close to Agia Triada site. The same study suggests high sedimentation rate and rapid Holocene delta progradation towards a marine embayment in Timbaki basin since the Neolithic and early Bronze age, which caused transgression of the coastline westwards to its modern position. The present study includes core sequences from the area south of Phaistos site (Agios Ioannis), consisting mainly of fine material deposited under calm environment. The analytical work included together sedimentological analyses (laser grain size analysis, magnetic susceptibility measurements, loss-on-ignition and carbonate content estimation) and microfaunal identification (diatoms). The proxies were incorporated into a robust chronostratigraphic framework through radiocarbon datings (A.M.S.) along the cores. Different facies indicate alteration of the dominating depositional regime (fluvial, lacustrine, marsh) during Holocene, until the recent reclamation of the area for cultivation (1970s). These preliminary results are finally interrelated to the archaeological background in the area, connecting anthropogenic and natural causes of alteration.