



Alimini Lakes Project (PAL). Human-environment interaction during the Holocene in Mediterranean coastal wetlands

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A diachronical understanding of the co-evolution of people and Mediterranean wetlands requires the combined study of archaeological and palaeoenvironmental records. By focusing on an extended chronology, and relying on the update of known and new archaeological and palaeoenvironmental sequences, PAL investigates how the Alimini Lakes district (Apulia, S Italy) has changed over the past 10ka (the Holocene), a period witnessing great climatic environmental and social change. Holocene climate change is amplified in coastal wetlands, greatly affecting hydrology, vegetation and people. Likewise, socio-economical changes (e.g. the introduction of agriculture) play a fundamental role in the shaping of wet landscapes. Under the combined action of environmental and human factors, coastal wetlands are prone to rapid and drastic ecological shifts and constitute ideal locations for developing a geoarchaeological approach.

The results of the first year of research are presented here and include (1) the visit, description and GPS positioning of previously and newly discovered archaeological areas (cave and open air sites), (2) sampling of two Holocene sedimentary sequences from the Alimini Lakes district, (3) the results of the preliminary analyses (including AMS radiocarbon dating) carried out on the samples. The relocation of new and previously found archaeological sites was necessary to overcome some confusions caused by the contrasting published information. Relocated archaeological sites were normalized in a GIS environment. Two main Pleistocene/Holocene palaeoenvironmental sequences were sampled within the Alimini Lakes district: (1) the Frassanito dune reference sequence, obtained from a portion of the coastal dune (up to 10 m high) bordering the trait of the Adriatic coast situated in front of the Alimini lakes, (2) the ALIG 1 core (9 m long) sampled on the W shore of Alimini Grande Lake.

The multiproxy study of these sedimentary sequences provides a record of Holocene environmental changes that allows contextualizing the local signature in the wider central and eastern Mediterranean region, by comparison with published and ongoing studies of similar Mediterranean wetlands. These data, correlated to the archaeological record available for the wider central Mediterranean region, will allow the understanding of the differences between human response to climate change and anthropogenic impact on the environment at the local and regional scales.