



Geophysical investigations at the ancient town of Palea Epidavros, Greece.

Irene Zananiri (1), Vassilios Hademenos (1), and Christos Piteros (2)

(1) Institute of Geology & Mineral Exploration, Spirou Loui 1, Olympic Village, 3rd Entrance, 136 77 Acharnae, Greece (izanan@igme.gr), (2) 4th Ephoria of Prehistorical and Classical Antiquities, Syntagma Square, 211 00 Nafplion, Greece

The ancient town of Palea Epidavros, inhabited since the 3rd millennium B.C., has not been systematically excavated; however, numerous ruins, from different eras, outcrop all over the so-called “Nisi”, which is the Greek term for island, peninsula. Thus, several questions are still open concerning the palaeogeographic evolution of the area and especially the strait of Nisi. Towards this scope a non-invasive geophysical and stratigraphy study was carried out in the broader area of Palea Epidavros, in order to investigate the possible presence of a marine channel between the Nisi peninsula and the main coast. The fieldwork comprised vertical electric soundings, measurements of the total magnetic field and drilling of two exploratory boreholes, reaching 12.16m and 14.40m respectively. The locations of the fieldwork activities were determined in collaboration with archaeologists from the 4th E.P.C.A. Detailed textural examination was carried out for the drilled cores and laboratory magnetic measurements were performed on samples: low and high field magnetic susceptibility, frequency dependence calculation, isothermal remanence acquisition and thermomagnetic analyses. The data management and cartographic representation was performed using Geographic Information Systems, where a geographic database was created, including all available information for the broader Palea Epidavros area: local geology, topographic features, satellite images and archaeological data.