

FOSSIL COASTLINES OF THE THERA ISLAND RESEARCHES AND THEIR CORRELATION WITH THE TECTONIC AND THE RECENT TRANSGRESSION

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In the archaeogeomorphological researches we carry out, aiming to the reconstruction of the paleogeographic changes in Hellenic areas with archaeological interest, the area of the island of Thera was included.

The reconstruction of the changes in the coastal environment of the Thera island is, perhaps, the most interest from every other ancient cite, because the Middle Minoan explosion of the volcano caused impressive changes to the morphology and the destruction of the Middle Minoan settlement of Acrotiri round the half of the second millenium B.C.

The fieldwork included coastal and submarine research.

By laboratory analyses identification of the several submarine beachrocks and other geofoms was made. The Kind of cement as well as its mineralogical composition (necessary for the definition of the several paleoenvironments and the conditions of their creation) were determined.

From the research data came out that all around of the Thera island fossil coasts, in the form of beachrocks, in various depths, lower than the present sea-level, exist. At the Southern part of the island they appear more frequently but some recent as well as older tectonic action has influenced their morphology.

The activity of eustatic factors, alternating with periods of tectonic instability, that influence on the morphology of the area was ascertained.

From the macroscopic, microscopic and mineralogical data of the research it was proved that all the estimated beachrocks correspond to older coastlines and that their cementation is done in the internal of the coastal sediment and not on its surface. The Mg of the calcite cement has a steady presence of approximately 14-16 mol % MgCO₃ in solid solution and is of primary origin.