



## **Geoarchaeological study of Katarraktes cave system - a geochemical approach**

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Archaeological excavations in the cave system of Katarraktes, near Sidirokastro, Macedonia, Greece, begun in 2004 and brought into surface a great number of historical and prehistoric findings. The setting of the archaeological studies was mainly a rock-roof and the findings aged from Bronze Age till modern times. The main activity of that location seemed to be food preparation and storage. In order to investigate the correlation between human use of the cave and the environmental conditions of the area during those parts of prehistoric and historical time, a geochemical study was conducted, dealing with waters of the cave system, cave unconsolidated sediments and carbonate rocky depositions of the cave like stalagmites. The analysis of the  $^{13}\text{C}$  and  $^{18}\text{O}$  isotopes in carbonate sediments provided information about the conditions at the time of precipitation of the carbonate material inside the cave. Similar analyses took place on samples near the archaeological findings and the results were correlated with archaeological data both in view of time and space. A general reconstruction of the period of human occupation in the Katarraktes cave system was established, on the basis of a combination of archaeological and geochemical data.