



The geomorphological mapping of Kanaan cave: a new approach in plaeoenvironmental record analysis in Lebanon

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Mgharet Kanaan, a cave of 170 m. long and 100m. above Mediterranean sea level, presents two different morphological sections. The speleogenesis analysis of the cave forms based on geomorphological mapping of the galleries confirms that these sections were developed separately and were connected at an advanced level of the cave development. The geological characteristics of each section and the different hydrogeological network regimes in the galleries, as well as the tectonic frame, affect, at large scale, the karstic network system of Antelias area.

The geomorphological approach led in this study helped us to understand the major contribution factors involved in the karstic system as well as their evolution from Late Quaternary times to our present time. The relative chronology based on cave mapping analysis can reveal main geological events and hydrological system development implicated in paleoenvironmental conditions. This approach is necessary to understand better dating records analysis done on speleothems and to insert record results in the geographical and geomorphological context of the study area.