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The invisible record of the Marathousa 1 sediments: Phytoliths and diatoms

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Three environmental proxies have been analysed in order to shed some light on our understanding of the vegetation and climate during the past human visits in Marathousa 1 site. Phytoliths, a terrestrial proxy as well as diatoms and sponges, both wet body proxies, were extracted from the sediments following the same methodology as all of them belong to silicate micro-remains. A pilot sampling was conducted focusing on archaeological and paleoecological questions. The results of the analysis show that the preservation of all proxies is poor causing interpretation problems. The method used was tested and needs to be improved in order to acquire better results given the poverty of remains. Nevertheless, the reproducibility test of the method shows relatively good results and therefore a first estimation of the palaeoenvironment is attempted. Phytolith assemblages provide evidence of different climate with respect to time and different vegetation with respect to space, i.e. area A vs area B. On the other hand diatoms are badly weathered and have been recovered in minor quantities indicating turbulence by stream energy and transportation away from the shore resulting in frustule absence.