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## Relict sand wedge sites in Hungary – a sedimentological case study

Thermal contraction cracks are well known proxies of frost action, both in recent and relict environments. A sedimentological analysis was carried out on relict sand wedges from two study sites (Kemeneshát and Mogyoród area) in Hungary, in order to investigate past periglacial processes in the Pannonian Basin. After adequate sample preparation, the grain size distribution of sand wedge infillings (N=82) was determined, and descriptive statistical analysis was carried out using GRADISTAT software. 470 quartz sand grains were examined by using a scanning electron microscope. Thereby, the roundness of the grains was determined and grain surface microtextures were analysed.

The results show that every sample from the Kemeneshát area exhibit poor sorting values and mainly polymodal distributions, while the Mogyoród samples are exclusively unimodal and moderately sorted. SEM investigation reinforces the abovementioned statements with the Krumbein's scale results. Most of the studied grains are angular, which refers to the short transportation time of the sediment. Crystal overgrowth was often found on the grains, which suggests sandstone or metamorphic origin for the infilling material. Intensively weathered grain surfaces mark lots of changes in the palaeotemperature. Fresh, sharp edges, as well as big, unaltered conchoidal fractures and breakage blocks indicate intensive frost weathering processes during the last damaging cycle of the sediment.



These results help us to reduce the arising uncertainties in the paleoenvironmental reconstruction of the Pannonian Basin during Late Pleistocene.