Paleosols and "debris" in Jordan - neglected archives of environmental change?

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Paleosol investigation still seems an unusual concept for classical archaeology in Jordan. Soils and sediments covering ancient ruins are often excavated as "debris", and their environmental significance is not recognized. Another reason for the neglect of paleosol research in Jordan might be due to the fact that buried surfaces in colluvia of the vicinity can often not be identified as such, since it is impossible to distinguish them visually from cover sediments. However, bulk sediment analysis can provide important additional insight. The combination of soil magnetics, development indices based on iron and manganese oxides, thin sections, and determination of calcium carbonate contents allows deciphering the stratigraphy of colluvia in Jordan. As well, many - if not all - cover sediments on archaeological ruins show signs of fluvial activity. Combining the evidence from the debris with colluvia could allow exploring a well-dated archive for the occurrence of extreme precipitation events, which were the most important agents of landscape change. In this context, establishing a well-dated stratigraphy of soil movements in the Levant might allow reconstructing patterns of regional climate anomalies.