

## Publication

## Studying the preservation of plant macroremains from waterlogged archaeological deposits for an assessment of layer taphonomy

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Layer taphonomy is one of the major questions in the archaeological research of lakeshore settlements. How fast did these deposits develop? Were they exposed to periodic droughts and decay? Which amount of the originally deposited remains survived until present? Plant macroremains have a great potential as indicators of preservation quality, since they are short-lived and particularly sensible to changes in preservation conditions. This paper reviews previous attempts to use similar proxies to understand layer taphonomy and provides a compilation of almost 50 variables (that include plant macroremains and other remains found in sediment samples) as indicators for preservation quality. Two late Neolithic lakeshore sites located in Central Switzerland were used as tests and more than 100 samples per site were investigated. Samples were grouped into meaningful groups (according to sediment type or their location in the stratigraphy, etc.) and ubiquities were calculated for each variable in each group of samples. Correspondence Analysis was applied in order to establish connections between groups of variables and groups of samples. GIS was used in one of the cases to look at preservation at a site scale. The method proved to be useful and differences in preservation conditions were observed in both sites, not only regarding the location of the samples in the stratigraphy and in relation to their proximity to the lake, but also in connection to sediment type. It is suggested that such studies are necessary before any palaeoeconomic analysis is undertaken.

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