Annual Meeting of the UISPP 4th Commission 2009 in Budapest
Data Management and Mathematical Methods in Archaeology
Special Issue: Quantitative Methods for the Challenges in 21st Century Archaeology

Detecting ancient surfaces – Methods of (semi)quantitative phytolith and biomorph analysis

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Abstract

The detection of ancient palaeo-surfaces and horizons is feasible with various pedological methods. The aim of the biomorph analysis is to provide data on the properties of ancient surfaces by locating the palaeo-horizons and describing their vegetation.

During our kurgan researches at the Department of Nature Conservation and Landscape Ecology (Szent István University) we have often faced the problem of the precise description of the location of palaeo-horizons.

The biomorph analysis provides data in palaeoecological researches through the examination of ’phyto’ and ’zoo’ microremains. The so called ’multiple biomorph analysis’ works both with organic (spores, pollen, charcoal, detritus) and mineral (anorganic) (phytoliths, spicules of sponges, diatoms) particles. The aim of the quantitative analysis of these particles is the identification of the biomorph content in the relevant fractions of the cultural layers and genetic soil horizons and the graphical display throughout the examined cross-section.

Present paper takes aim to introduce the utilisation of the quantitative biomorph analysis in palaeoecology and environmental archaeology.