

## Archaeological objects in loesses recognized by GPR research at the site Karmanowice, Poland

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### Abstract

The aim of the research was to examine subsurface soil layers with the use of the Ground Penetrating Radar (GPR) method. Neolithic archaeological post in Karmanowice was examined. On the basis of earlier geophysical researches and archaeological premises, eight measurement profiles had been chosen. Ground Penetrating Radar system with antenna of 500 MHz frequency was applied. The measurements were made with 30 and 60 ns time windows. The results were shown as the GPR sections. The analysis of the obtained results allowed us to outline anomalies connected with the appearance of archaeological objects in subsurface soil layers. The border between the anthropogenically changed upper layer and undisturbed loess was established, and the sections of slope wash layers were designated. Anomalies were confirmed by digging and test drillings. Additionally, 2D resistivity imaging method was used for verification of specific anthropogenic anomalies.

**Key words:** GPR, archaeological prospection, Neolithic culture, resistivity imaging.