

KП-06-KOCT/2

The Soil Science & Archaeo-Geophysics Alliance: Going Beyond Prospection



Archaeological sites can be discovered and recorded with a high-resolution and non-invasively through geophysical methods. They measure the spatial variation of a range of physical properties of the soil which may represent proxies of the subsurface archaeology. Less-invasive and cost-effective field works have become a major priority to mitigate the destructive effects on our cultural heritage from intensified land use, climate change and the current conflicts in many countries. A major problem in archaeological prospection is that our ability to fully interpret the information available from geophysical datasets is still very limited. This deficiency prevents geophysical survey moving beyond basic prospection and becoming a significant tool for answering detailed questions about archaeology and the hosting landscapes. This limitation arises from an incomplete understanding of the relationship between soil properties and geophysical measurements. Its resolution is in the basis of the SAGA COST action (www.saga-cost.eu). Bulgarian team from NIGGG-BAS is included in the Action with its high-level expertise in studies of geophysical and magnetic

properties of soils, as well as the rich experience in archaeomagnetic investigations and examination of magnetic properties of archaeological material of burnt clay. The main scientific tasks which will be resolved within the co-financing project will be: 1) investigation of the link between magnetic properties of different soil types and their potential for formation of new iron oxides as a result of heating; This will help for more effective interpretation of magnetic prospection data; 2) study of magnetic properties of two stratigraphic profiles from multileveled tells in order to characterize the properties of anthropogenically affected levels; 3) determination of equivalent maximum firing temperatures of archaeological remains of burnt clay and classical archaeomagnetic studies; 4) testing applicability of magnetic susceptibility as a parameter for field prospection method in archaeological sites; 5) investigation of magnetic properties of archaeological materials and soils, affected by anthropogenic activities; 6) contribution to building up a common data base for the SAGA COST action



INFORMATION

PROGRAMME

National Science Fund
Co-financing of COST

PARTNERS NIGGG-BAS

IMPLEMENTATION PERIOD 2018-2020

PROJECT BUDGET 40 000 BGN

PARTNER BUDGET 40 000 BGN

WEB PAGE www.saga-cost.eu

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