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From field-work to… "air-work": photogrammetric applications in Neolithic landscape reconstruction

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Aerial Remote Sensing has never been so popular, even from its lowest altitude perspective. The drones (or UAV, or UAS, or RPAS, or … whatever other name one may prefer) have made nowadays a definite impact in archaeological research. It is normally a low cost tool for low altitude aerial photography, regional surveys, excavation documentation, site identification and mapping, and 3D photogrammetry. So are we dealing with a flexible multi-purpose scalable tool in the toolbox of the archaeologist that will solve all his problems and satisfy all research needs. Or not?

The complete workflow of a low altitude photogrammetry application, in the framework of "IGEAN-Neolithic Thessaly" project, will highlight potentials and issues related to the use of unmanned platforms. The goal of the research project "Innovative Geophysical Approaches for the Study of Early Agricultural Villages of Neolithic Thessaly" which is implemented under the "ARISTEIA" Action of the "Operational Programme Education and Lifelong Learning" and is co-funded by the European Social Fund (ESF) and National Resources, is the development of methodologies for the registration and mapping of the specific Neolithic settlements through geomorphological and aerial remote sensing approaches. A preliminary campaign has been undertaken in selected number of Neolithic sites where different kind of systematic geophysical measurements were collected simultaneously with UAV photogrammetric sessions. The paper will focus in first results of the photogrammetric campaign, showing achieved goals, UAV performance assessment and lessons-learned during the low altitude aerial survey.

Session 2: Aerial data-to-knowledge 1: patterns and landscaping processes
Date & Time of presentation: Wednesday 24th September, 14:40 - 15:05

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