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**Spatial analysis of marshy areas: Neolithic tell-sites in Pelagonia**

Pelagonia has the highest density of Neolithic settlements in Republic of Macedonia, whose spatial distribution and patterns have been rarely explored on bigger scales. One of the main reasons for this density is the soil: highly fertile layers built upon thick alluvium and lake sediment which improved the quality of the soil over time. Even though a reliable chronological classification of the settlements found here is yet to be made, we believe that tools like GIS, packages for spatial analysis based on R, and available digital elevation models with acceptable quality are a good starting point for directing the archaeological discourse towards a more landscape-oriented research.

This poster will review some of the recent spatial analysis and digital methodologies applied in the research of Neolithic tell-sites in Pelagonia by building on seemingly trivial Euclidean geometry, to more complex spatial functions for recognizing significant landscape patterns. Therefore, an initial reconstruction of the interaction between the first agricultural communities in Pelagonia and how they reacted to their, mostly marshy surroundings was produced in order to explore any significance of the tells distribution across the Pelagonian plain.