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Celtic field agriculture and Early Anthropogenic Environmental change in the Meuse-Demer-Scheldt region, NW Europe

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The field of Archaeology remains focused on historical issues while underexploring its potential contribution on currently existing societal problems, e.g. climate change. The aim of this paper is to show the relevance of archeological studies for the research of the 'human species as a significant moving agent' in terms of the changing natural environment during a much earlier time frame.
This research is based on the study area of the Meuse-Demer-Scheldt region in the Netherlands and Belgium and exhibits the period from the Late Bronze Age to the Early Roman period. This period is characterized by the widespread introduction and use of an agricultural system, often referred to as the Celtic Field system that served as one of the most modifying systems in terms of anthropogenic-environmental change during this period. Emphasis in this research is given to results generated by the use of the remote sensing technology, LiDAR. New information is reported considering a correlation between singular field size and the overall surface of the agricultural complexes and secondly, the presentation of newly identified Celtic field systems in the Meuse-Demer-Scheldt region are presented.
The study of the dynamics of the Celtic Field agricultural system provides evidence for a significant anthropogenic footprint on the natural environment due to land cover dominance, soil degeneration, increased soil acidification and forest clearance. Soil exhaustion forced the inhabitants to re-establish their relationship with the landscape in terms of fundamental changes in the habitation pattern and the agrarian exploitations of the land.