
Inferring site function and technological organization from combined spatial, technological and microwear-analyses at the Mesolithic wetland site of Kerkhove-Stuw, northwestern Belgium (preliminary results).

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Abstract

The extensive Mesolithic site of Kerkhove-Stuw was located on the top of a natural levee, adjacent to a palaeochannel of the river Scheldt. Subsequently (from the boreal onwards), the landscape was covered by approximately 4,5m to 9m of peat and alluvial clay. The infill of the palaeochannel deposits were studied by means of a high-resolution multi-proxy analysis (i.e. pollen, microcharcoal, loss on ignition, magnetic susceptibility, granulometry, mollusc fauna ...etc.) to reconstruct the varying ecological settings of the prehistoric occupation. The excavations yielded thirteen spatially distinct concentrations of lithic artefacts that could be dated to the Early, the Middle and the Late Mesolithic, based on typology. This was partly confirmed by ¹⁴C-dates on single entity charred hazelnut shells. Additionally, the site had great potential for a comprehensive technological analysis thanks to the overall low-density of the lithic concentrations and the diversity of macroscopically discernable raw material categories.

Besides lithics, a considerable amount of unburnt and burnt bone fragments, and palaeobotanical remains were documented. The preservation of a faunal assemblage (dominated by roe deer and wild boar, but also comprised of fur animals and fish remains) is exceptional for the Early and Middle Mesolithic in the region and will allow us, for the first time, to gain a better understanding of Mesolithic subsistence practices.

Finally, to determine the inter- and intrasite functional properties and aspects of the technological organization of the thirteen lithic concentrations, the spatial distribution of the different types of material remains are studied, combined with a technological and microwear analysis of the lithic artefacts. For example, the location of ten possible surface hearths could be derived from heavily burnt lithic artefacts and burnt organic remains. So far, preliminary

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results from the technological analysis indicate the presence of several expedient technologies, more elaborate opposed striking platform knapping sequences and a possible diachronic evolution in preferential raw material use. Both spatial analyses and lithic technology are reinforced by an extensive microwear analysis that can specify the objectives of the knapping sequences and mostly the spatial organization of the different activities (butchery, hide and plant scraping, osseous tools manufacturing...) for each occupation phase.

In the future, the results from Kerkhove will have to be compared with those previously obtained with the same protocol from other (dryland) sites in northwestern Belgium.

Keywords: Mesolithic, spatial analysis, lithic technology, microwear analysis