
Functional analyses of Mesolithic ground stone tools

Daniela Holst*¹

¹Institute of Prehistoric Archaeology, University of Cologne – Weyertal 125 D-50931 Cologne, Allemagne

Résumé

Ground stone tools play a key role for reconstructions of subsistence, craft technologies, land use and settlement behaviour. This is especially true for the Mesolithic, when ground stone tools appear in large numbers and varieties. According to their find contexts and morphologies these commonly and multifunctionally used stones were needed for a wide range of activities, including food preparation, manufacturing of tools, as building material or heat conductor. Furthermore, ground stones have for the first time been deliberately modified into mace-heads or axes. Still, they receive little attention in Mesolithic research.

The project works on reconstructions of the use history of ground stone tools, starting with case studies based on the the find materials from selected Mesolithic sites in Northern Germany (Duvensee, Rothenklempenow 17, Friesack 4, Neustadt LA 156). These sites are distinguished by an excellent organic preservation and careful documentation. The analyses focus on quantitative reconstructions of the functions and the economy of ground stone tool use in the respective settlements and subsistence contexts.

Analyses include the identification of the raw materials selected, measuring of their properties, stone morphology, surface topography, use wear and possible residues, investigations of heating temperatures (Ftir-spectroscopy) as well as experiments on tool use and heating. Intra-site spatial investigations will contextualize the results.

The presentation will focus on the methodologies employed and present some first results of the recently started project.

Mots-Clés: ground stone tools, Northern Germany, functional analysis, use wear, experiments, 3D scanning

*Intervenant