

# Between Uplands and Wetlands : Reconstructing Mesolithic Mobility in the Demer Basin (Belgium)

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## Project Goal

This project aims to reconstruct the mobility network and lifestyle of Mesolithic hunter-gatherers in the Demer Basin (Fig. 1). This reconstruction is based on data obtained through an integrated study of the lithic artefacts from five Mesolithic sites (**Diepenbeek Molenstraat, Stevoort Kanenveld, Donk Oud Kerkhof, Fluxys Tessenderlo–Diest**) excavated in the context of Malta archaeology.

We aim to:

- Assess assemblage homogeneity, including the issue of palimpsests (Fig. 5)
- Identify raw materials used at the site and understand the raw material economy
- Contribute to the further development of a reference collection for raw materials
- Characterize tool use and the activity spectrum at each site (Fig. 2 and 3)
- Examine the relation between raw material and tool use
- Reconstruct mobility and exchange networks during the Mesolithic

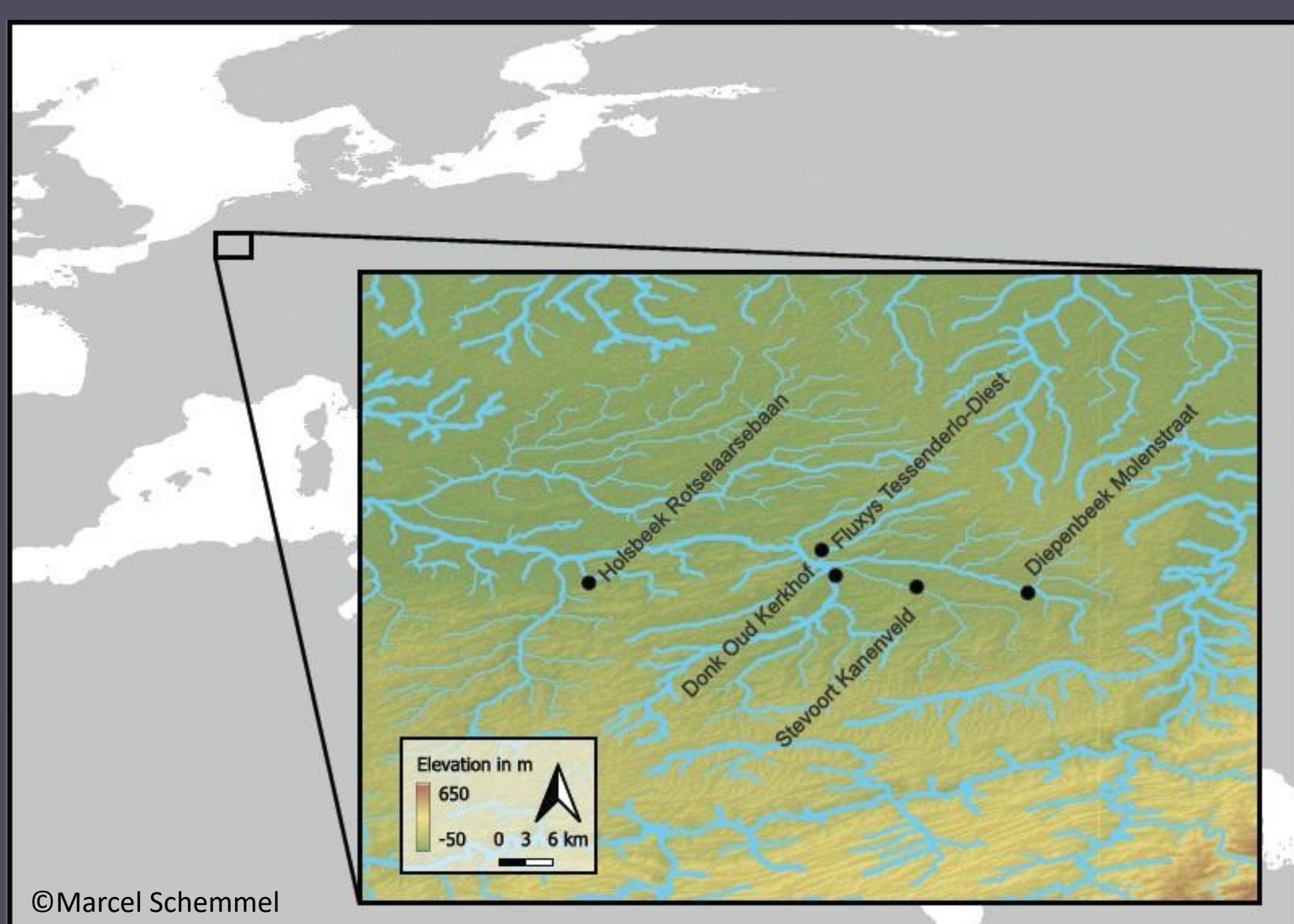


Figure 1. Location of the five selected sites within the Demer Basin



A systematic functional study : analysis of wear traces and residues, including a systematic examination of production, use and hafting wear order to better understand the tool's life cycle



Experimental study : improve our understanding of use-wear formation on "exotic" materials (Wommersom/Tienen quartzite and flint), with attention also to possible variation in use-wear development across different flint types



Technological study : detailed study including attribute analyses and refitting



Petroarchaeological approach : identification and characterization of local and exotic flint and through field surveys in the regions of the Demer Basin and the Haspengouw Plateau

## Preliminary functional results of Diepenbeek-Molenstraat

Wear traces on selected artefacts indicate craft/domestic activities, such as plant and wood working (Fig. 2). Hunting activities with diagnostic impact fractures and additional evidence for using adhesives (Fig. 4) in hafting were also identified.

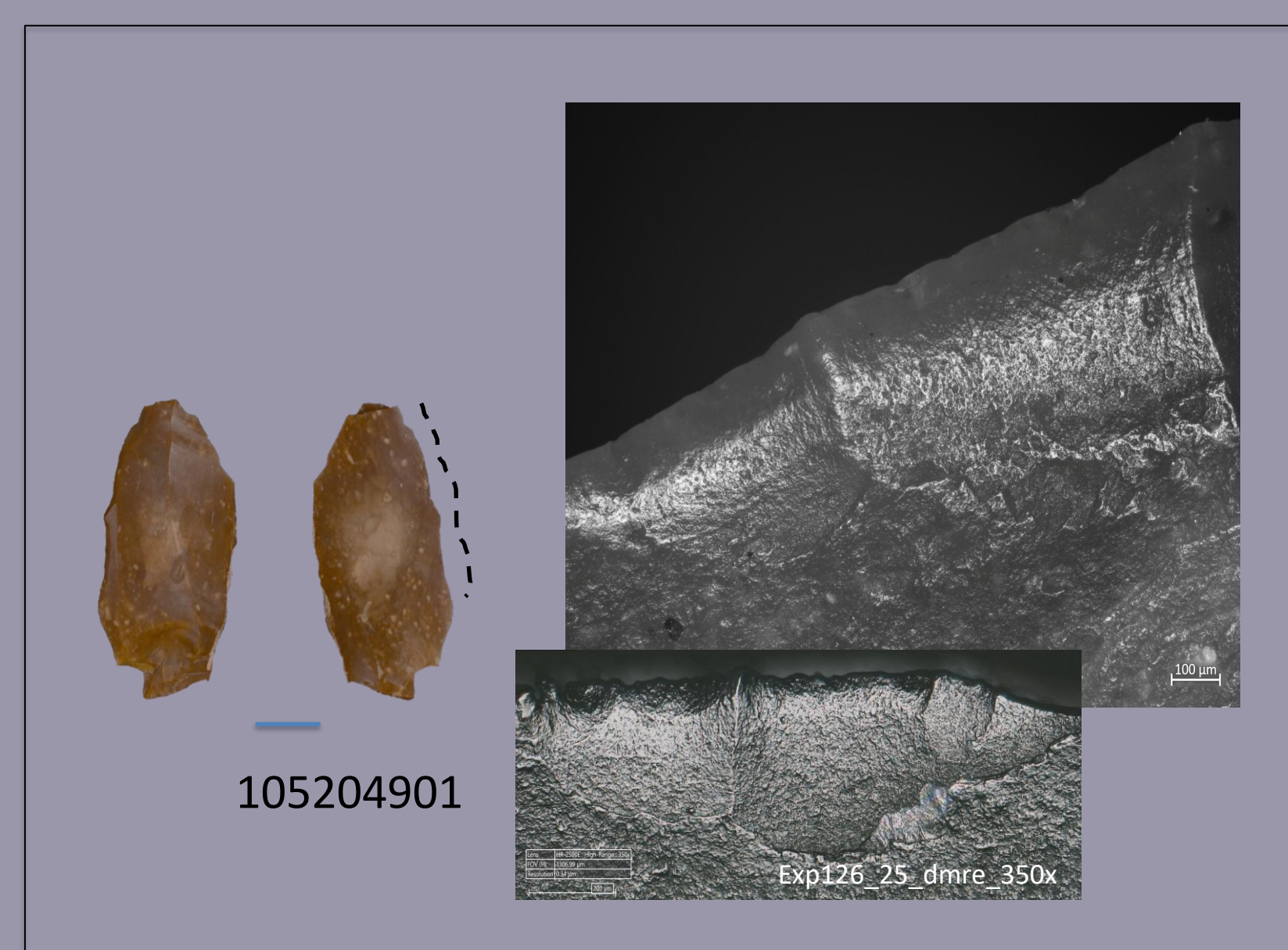


Figure 2. Example of wear patterns on an archaeological flake indicating a use in wood shaving, closely matching experimental wear traces.

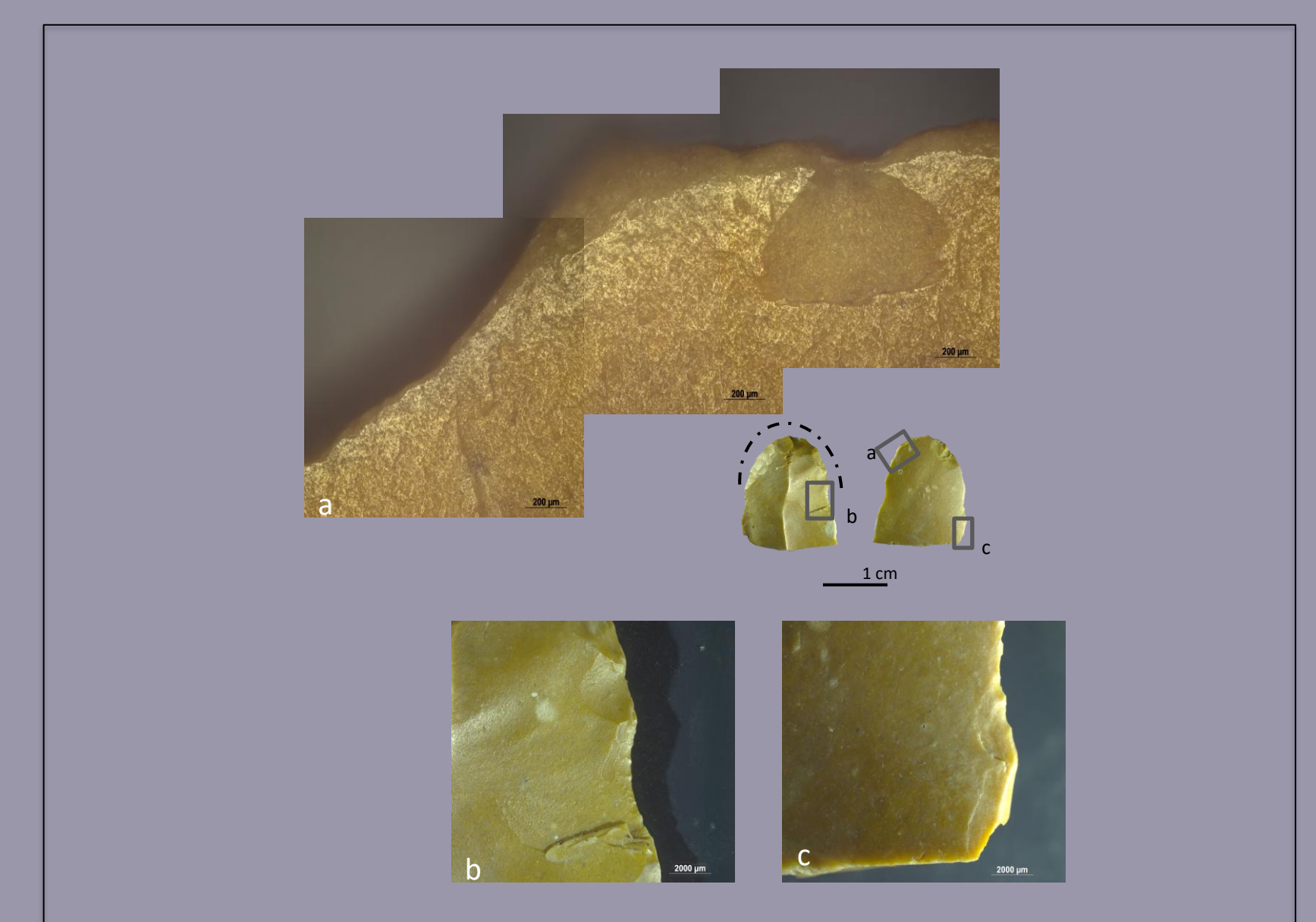


Figure 3. Use- and hafting-wear on an archaeological scraper : a) rounded distal ventral edge with polish indicative of hide scraping ( $\times 100$ ); b+c) edge damage and fracture likely related to hafting ( $\times 16$ ).

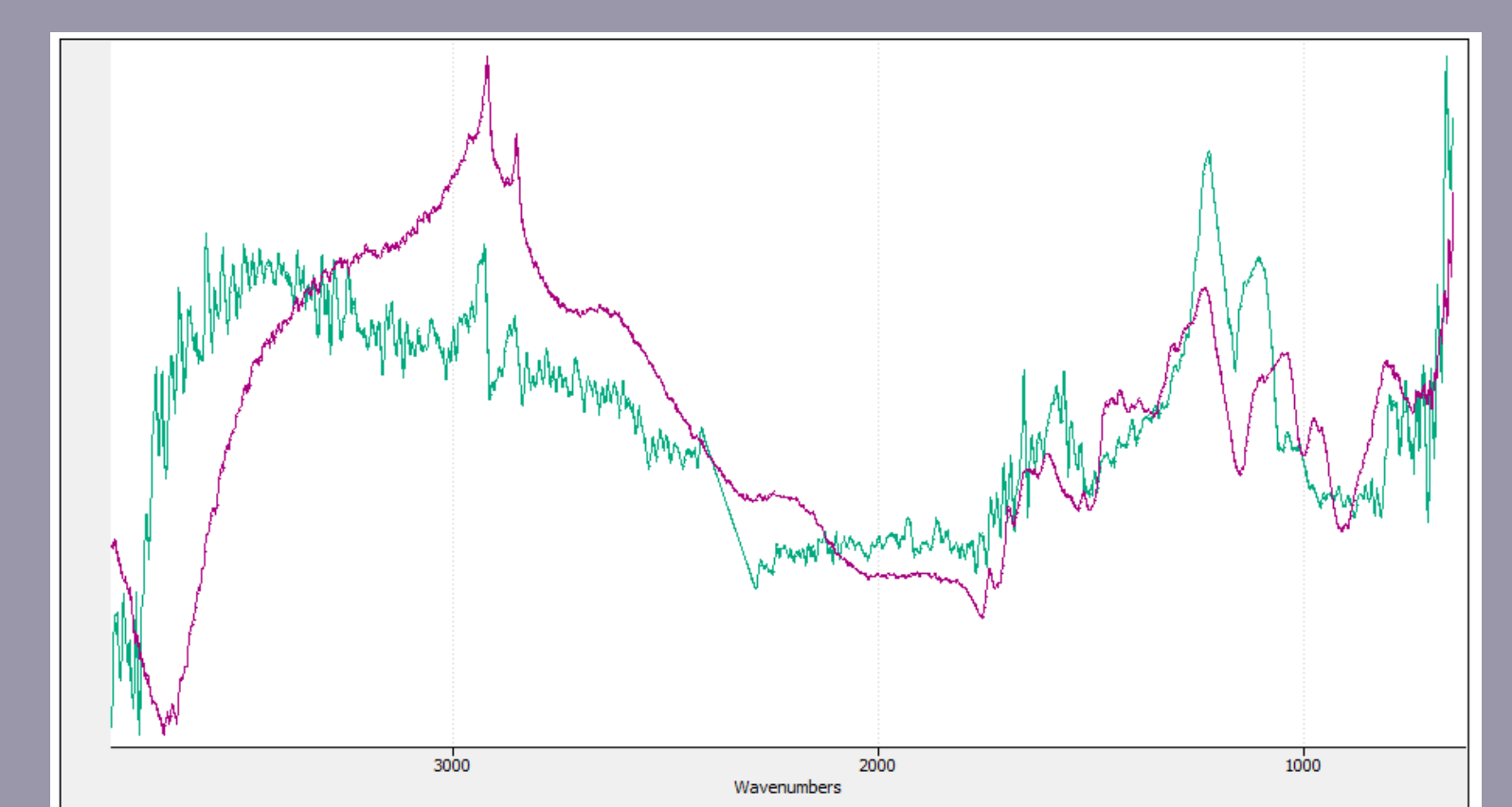
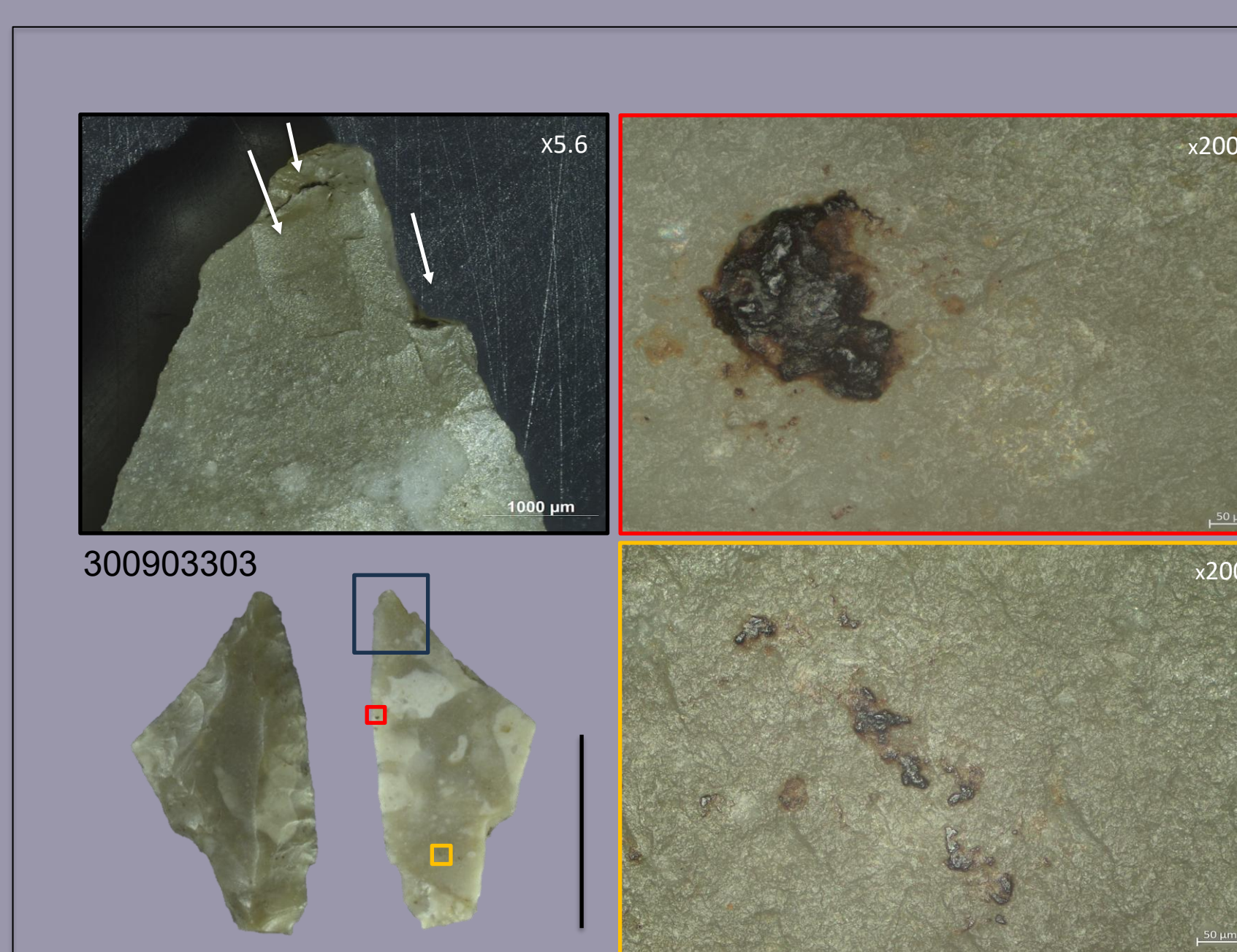


Figure 4. Analysis of adhesive residues with optical microscopy and reflectance FTIR on a projectile corresponds most likely to spruce resin, identified on the hafted parts of six projectile points.

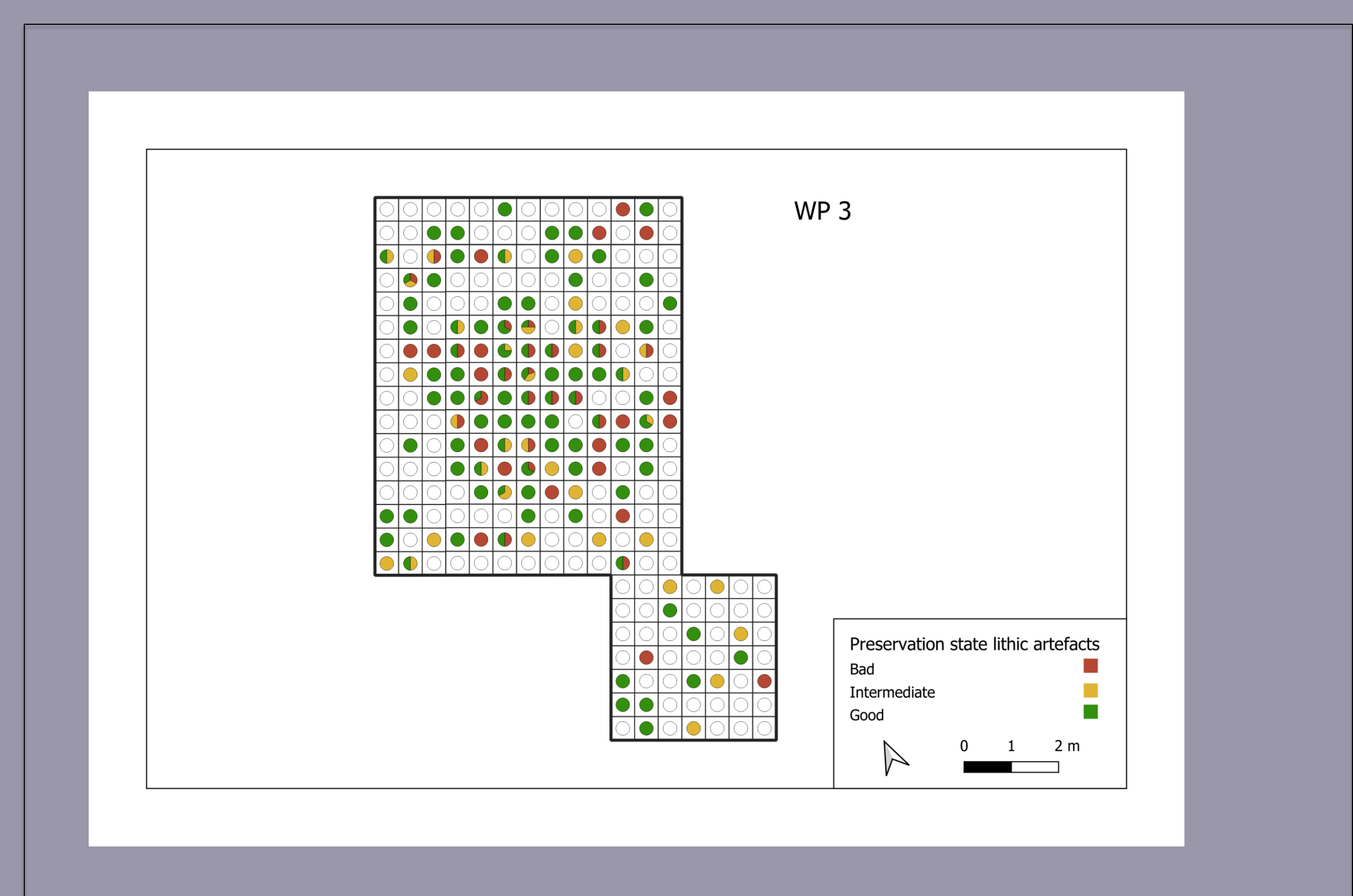


Figure 5. Visualisation of the degree of taphonomic alteration of the artefacts in relation to their spatial distribution (werkput 3).

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### Other partners :

