



# Small artefacts for special activity? A better understanding of the variability within the Hummalian industry through lithic refitting, Hummal, Syria

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## ABSTRACT

Hummal, located in the El-Kowm area of Central Syria, is a reference site for the Palaeolithic in the interior Levant due to its archaeological sequence of deposits from the Lower to Upper Palaeolithic. The open-air site offers an exceptional opportunity to study patterns of continuity and variability within the lithic assemblages of its eponymous industry, the Hummalian. The particular lithic assemblage recovered from Layer 7 is the focus of an attempted refitting and provides the data used in the research presented here. The collected pieces allowed the reconstruction of several chipped stone tool manufacturing episodes and reveals details of the technological working processes and the life cycle of archaeological objects through this refitting. It alludes to, after the primary blade reduction, the manufacturing of small debitage pieces which in turn testifies to the technological variability within the Hummalian. Combined with other studies such as attribute analysis, distribution patterns and geomorphological analyses they contribute to a greater understanding of the occupational history of the site as well as site disturbance processes. Furthermore, the Hummalian is the part of the Early Middle Palaeolithic (EMP) record and the presented refittings give evidence of the diverse technological behaviour of prehistoric humans not only within the Hummalian occupations themselves but also in comparison to other contemporary archaeological sites discovered in this and neighbouring regions. This case study contributes to the growing record of the EMP technological behaviour patterns and indicates the flexibility and dynamics of the technological organisation of prehistoric toolmakers from this period.

## 1. Introduction

The Hummalian an Early Middle Palaeolithic (EMP) industry is well-known from some early publications (e.g., Hours, 1982; Copeland, 1983, 1985; Bergman and Ohnuma, 1983) based on *ex situ* materials that have led to identification of a peculiar industry at the Hummal site (Fig. 1) and more recently also from excavated *in situ* materials from the site (e.g., Le Tensorer, 2004; Le Tensorer et al., 2007; Wojtczak, 2011, 2014, 2015a, 2015b; Wojtczak et al., 2014). Between 1997 and 2010 regular excavations took place, including particular field work of one of us (D. W.) under the joint project of Basel University and Damascus University team headed by J.-M. Le Tensorer and S. Muhesen. At this time, the archaeological multi-layer sequence for the Hummalian site (layers 6a, 6b, 6c-1, 6c-2, 7a and 7c), dated to around 200 ka (a minimum model of  $190 \pm 35$  ka and a maximum model of  $210 \pm 40$  ka), is well established (Fig. 2) being stratigraphically sandwiched between Yabrudian and Early Levantine Tabun-C type Mousterian levels (Richter, 2006; Richter et al., 2011) and is comparable with the known record of the Early Levantine Middle Palaeolithic

in the region (Rink et al., 2003; Mercier et al., 2007; Goder-Goldberger et al., 2012; Valladas et al., 2013).

Although still scarce, EMP sites in the Levant embraces diverse technological traditions within lithic assemblages and share the same chronological and stratigraphical positions along with similar land-use strategies (e.g. Meignen et al., 2006; Goder-Goldberger et al., 2012; Zaidner and Weinstein-Evron, 2012; Hovers and Belfer-Cohen, 2013; Wojtczak, 2015b; Malinsky-Buller, 2016; Weinstein-Evron and Zaidner, 2017). For instance, the recorded EMP assemblages are preceded by the Acheulo-Yabrudian or Yabrudian (the case of open-air sites in El Kowm) techno-complexes and the change from either of these lithic entities, already seen in their chronological boundary, may also reflect a technological discontinuity and differing human populations (White et al., 2003; Hershkovitz et al., 2018). Furthermore, the EMP flint knappers controlled a various range of core reduction strategies and thus the types of blanks manufactured, of which blades were the most characteristic pieces, were similarly wide-ranging in their critical morphologies. This might reveal the behavioural adaptations of hominids and adjustments in their subsistence strategies. The Hummalian is

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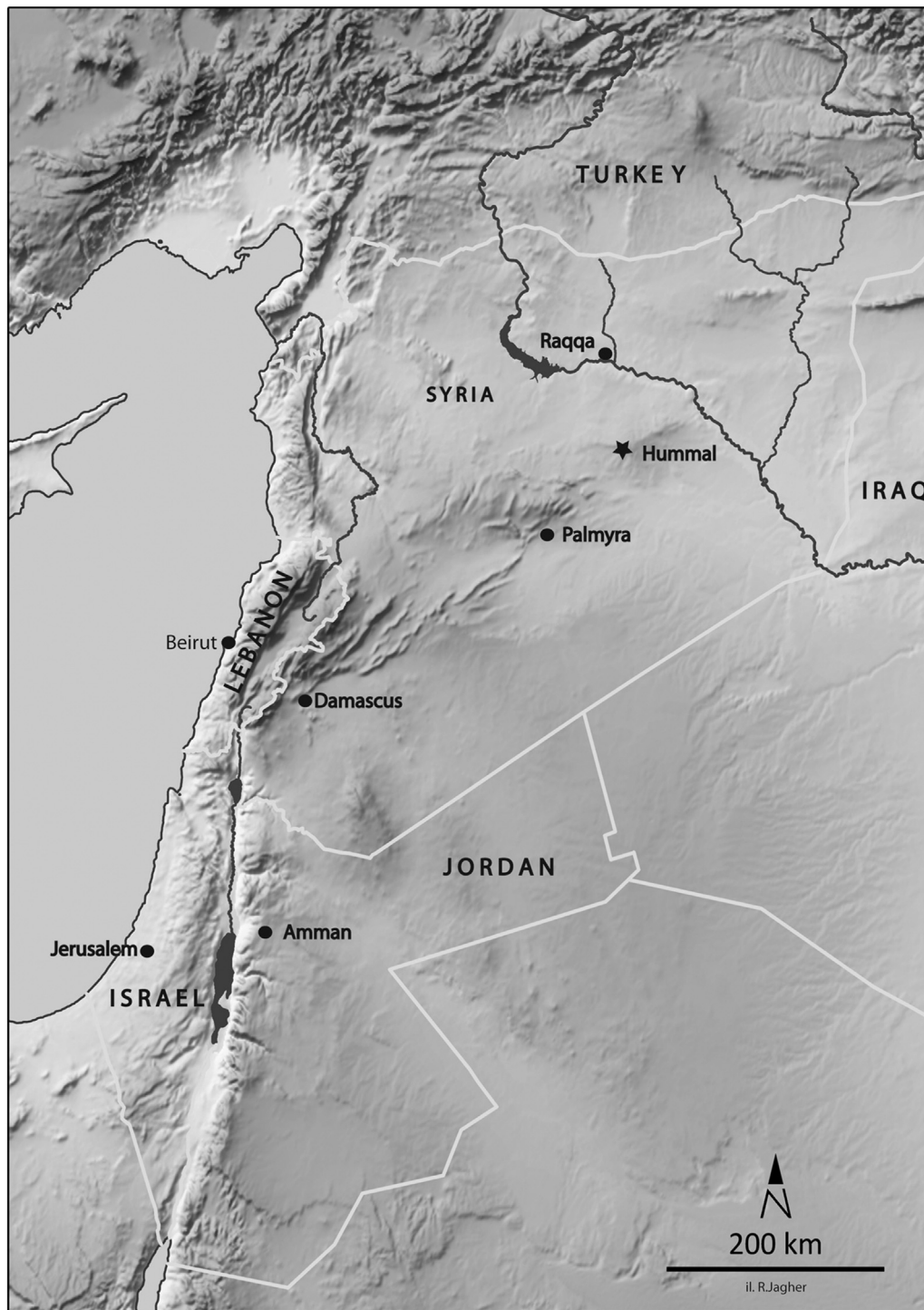


Fig. 1. Map showing the position of Hummal site in Levant.

part of this techno-typological entity and is first and foremost recognised for its extraordinary and systematic large-sized elongated blade core reduction and the corresponding retouched tools made on such blades, including many pointed forms (Copeland, 1985), additionally it also has a range of various core reduction strategies not only limited to blade reduction. The reduction strategies including Levallois, Laminar and core on flakes have been recognised at the site (Wojtczak, 2011, 2014, 2015a, 2015b; Wojtczak et al., 2014).

Most EMP sites display low densities of artefacts. Their lithic assemblages present scarce debitage pieces and a low ratio of cores to blanks, frequently retouched tools with numerous pointed pieces. They

often represent short but consecutive occupations and clear settlement activities (Hayonim, Emanuel Cave, Hummal 7 and 6c) thus demonstrating ephemeral settlements that could have been widely occupied by various groups of people who have relocated between sites. These features suggest the provisioning of individuals for short-term occupation in the context of highly mobile small groups (Hovers, 2001). Yet, EMP settlements seem to be more diverse, there are also sites like Misiya Cave, Upper Terrace and possibly Hummal layer 6b, which present more intensive, and successive occupation phases with high densities of artefacts per cubic meter. These advocate the provisioning of places. Furthermore, a significant percentage of intensely retouched

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