

# WHEN SIZE MATTERS: different roles for blades and bladelets in the Early Ahmarian site of Al-Ansab 1 (Jordan).

JACOPO GENNAI<sup>1</sup> & JÜRGEN RICHTER<sup>1</sup>

<sup>1</sup>UNIVERSITY OF COLOGNE, INSTITUTE OF PREHISTORIC ARCHAEOLOGY, WEYERTAL 125, 50923 COLOGNE, GERMANY; JGENNAI@UNI-KOELN.DE

Bladelets have been denoted as the typo-technological marker of several early Upper Palaeolithic (eUP), 45-37 ka cal BP, lithic assemblages (Le Brun-Ricalens et al., 2009). Their manufacturing processes have been thoroughly debated and are presented as distinctive of different eUP techno-complexes (Bon, 2002; Falcucci et al., 2017; Goring-Morrison & Davidzon, 2006; Tsanova et al., 2012).

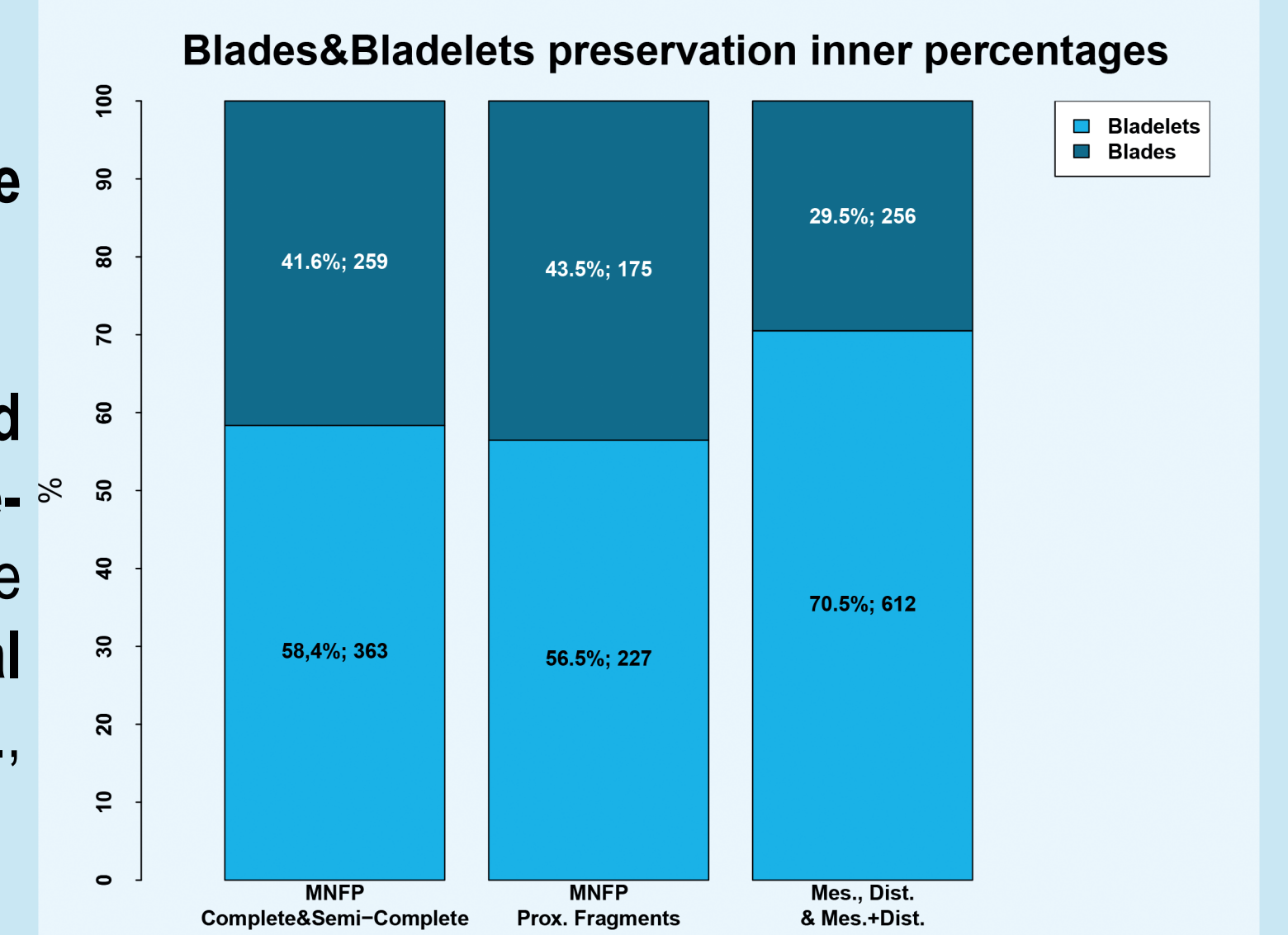
The Early Ahmarian (EAh) is a Levantine technocomplex chrono-stratigraphically ascribed to the eUP, with an original lithic production centred towards slender convergent blades and bladelets.

Al-Ansab 1 site (S Jordan) is excavated by the CRC806 since 2009 with annual campaigns, which brought to light in-place EAh campsites dated to 37 ka cal BP (C14 on charcoal). Due to the richness of its assemblage and the consistency of knapping methods applied, it is an ideal example of EAh lithic technology. Hence, it has been chosen for a thorough reevaluation of eUP bladelet-making processes, involving two other comparable European sites; here, preliminary data on the assemblage will be presented.

The analysed sample consists of 2043 items (1892 blades/bladelets, 106 flakes, 45 cores) retrieved during 2009 and 2011 campaigns, it is deemed representative in view of recent spatial analysis showing mostly equal representation of artefacts between concentrations within the site (Schoenberg pers. comm.).

A bladelet is a laminar item <12 mm wide (Zwyns, 2012).

Bladelets are numerically more represented than blades, even considering artefacts preserving the proximal parts: thought to be more indicative of an on-site production (Minimal Number of Flaking Products) (Falcucci et al., 2017).



## Do numbers show a Early Ahmarian knappers preference towards bladelets?

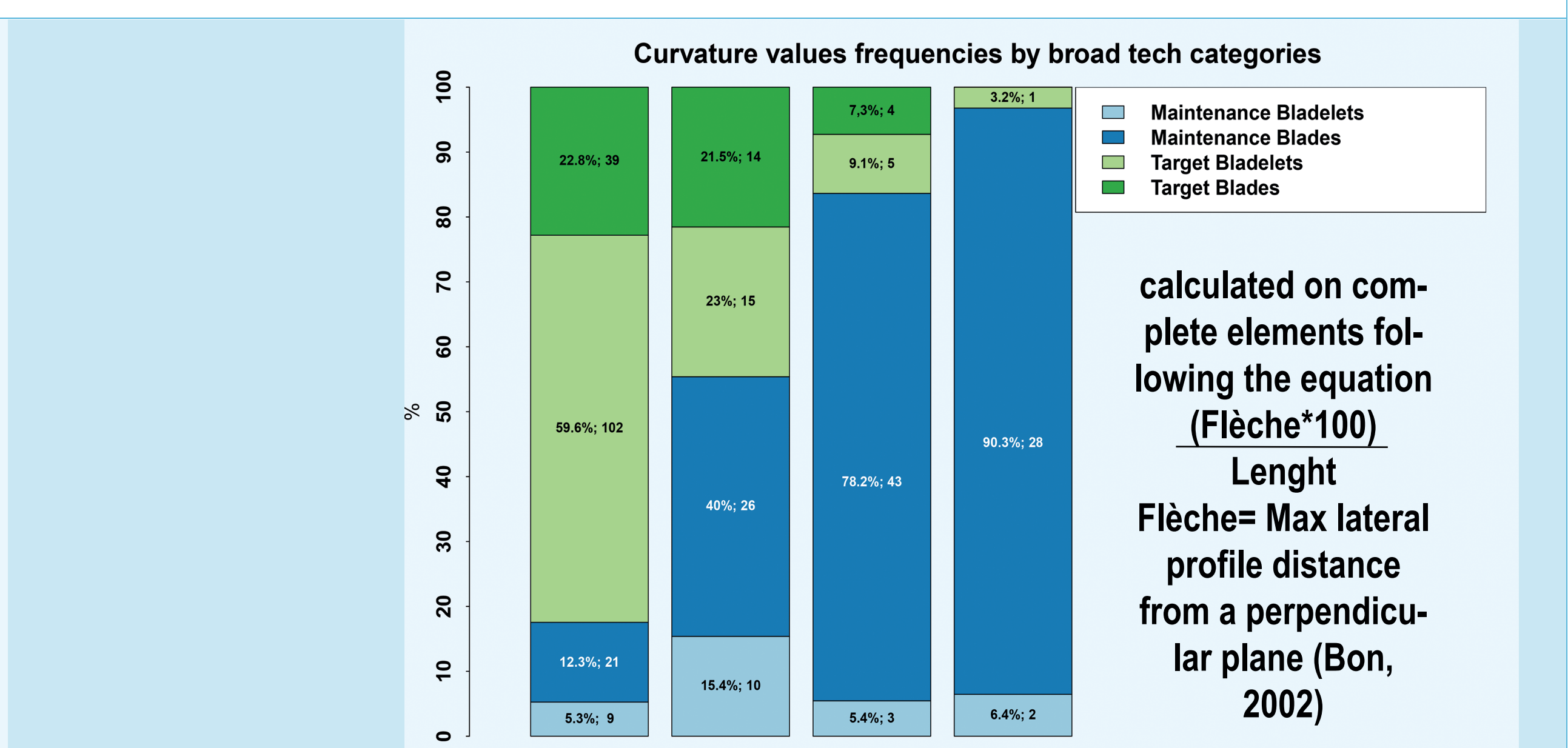
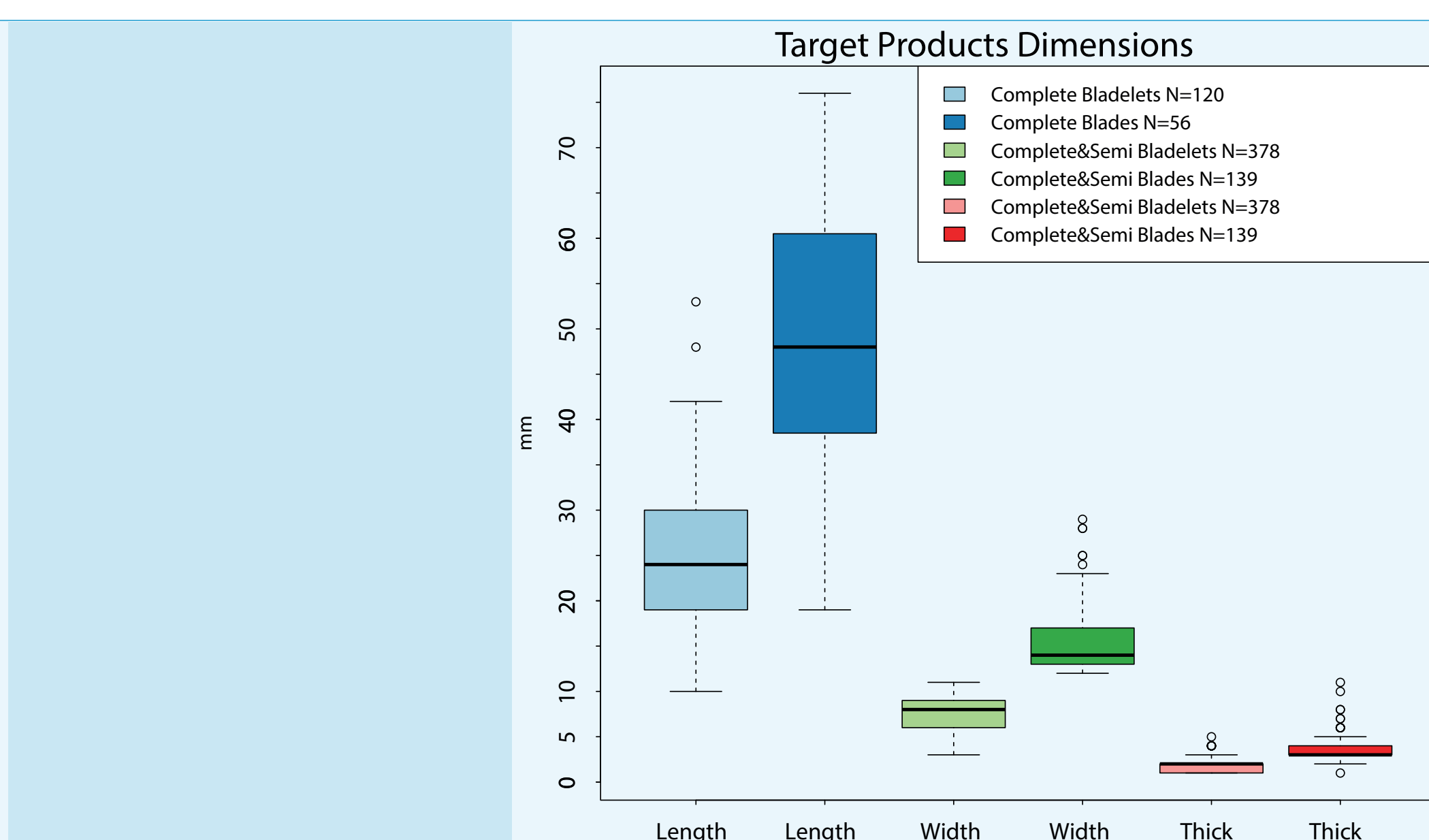
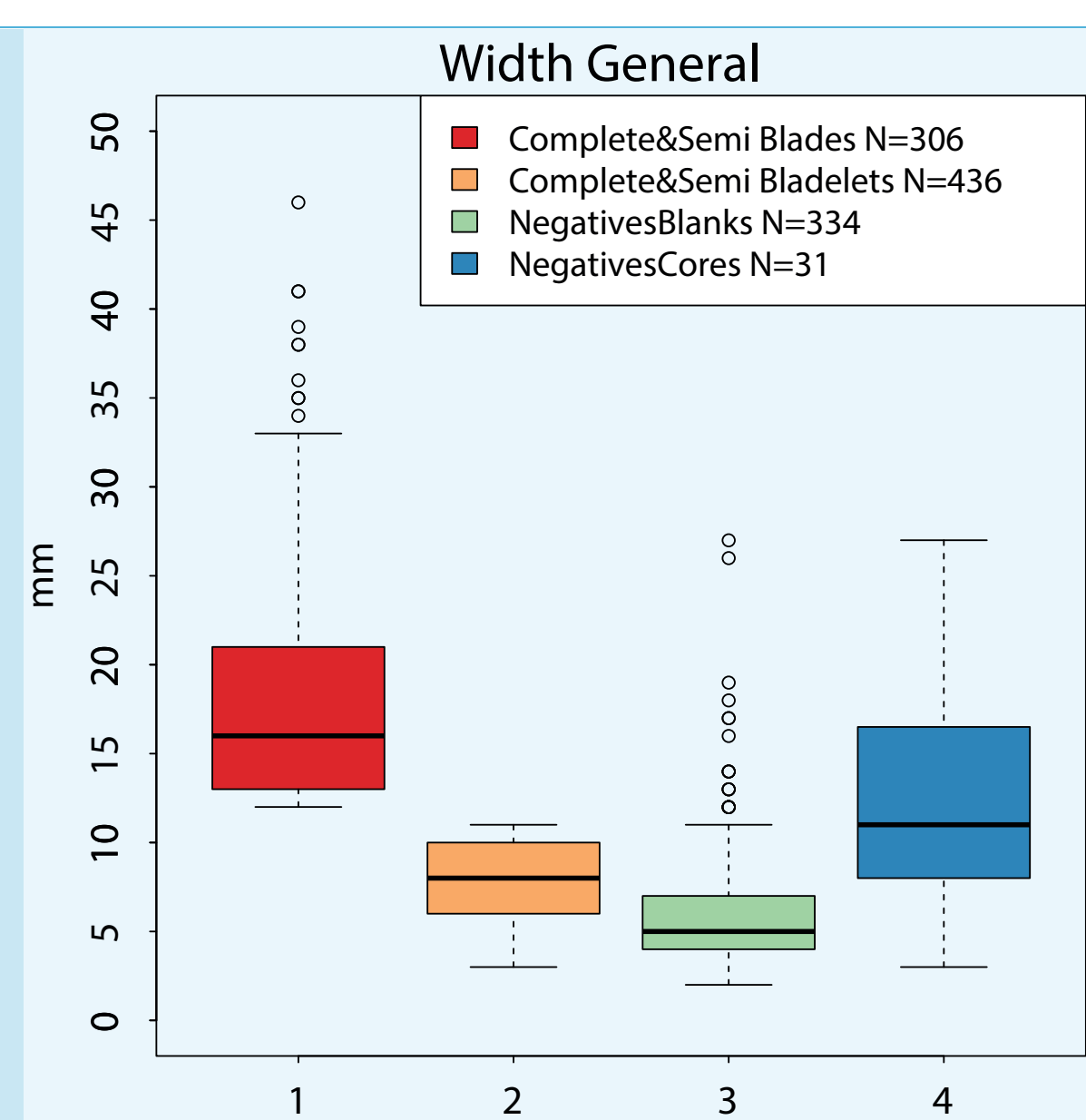
**ARGUMENT 1: Cores**  
Cores are knapped unipolarly. Since the onset, the goal is isolating a convergent flaking surface for producing a short series of bladelets. Convexities are maintained through blade items.

**ARGUMENT 2: Flakes**  
Technologically meaningful flakes are a minority: the chaîne opératoire is a laminar-based one. They represent the early shaping phases and core tablets.

**ARGUMENT 3: Maintenance Blades**  
Maintenance operations are carried out mostly on blades. They account for the highest dimensional and curvature values. Particularly, they carry bladelets negatives.

**ARGUMENT 4: Target Blades**  
Blades with target features are present, but they are less numerous and less dimensionally constrained than bladelets.

**Technological and dimensional features in Al-Ansab assemblage show that blades and bladelets perform clear-cut roles. Bladelets are preferred items for Target products.**



**References&Acknowledgments:** Bon F. 2002. L'Aurignacien entre mer et océan: réflexion sur l'unité des phases anciennes de l'Aurignacien dans le Sud de la France. Paris, France: Société préhistorique française; Falcucci A, Conard NJ, Peresani M 2017. A critical assessment of the Protoaurignacian lithic technology at Fumane Cave and its implications for the definition of the earliest Aurignacian. PLoS ONE 12(12): e0189241. <https://doi.org/10.1371/journal.pone.0189241>; Goring-Morrison N, Davidzon A, 2006: Straight to the Point: Upper Palaeolithic Ahmarian Lithic Technology in the Levant. Anthropologie (Brno) 44, 1: 93-111; Le Brun-Ricalens F, Bordes JG, Eizenberg L, 2009. A cross-glance between southern European and Middle-Near Eastern early Upper Palaeolithic techno-complexes. Existing models, new perspectives. In: Camps M, Szmidt C (eds.) The Mediterranean from fifty thousand to twenty-five thousand BP: Turning points and new directions. Oxford: Oxbow Books, p. 11-33; R Core Team (2019). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>; Tsanova T, Zwyns N, Eizenberg L, Teysandier N, Le Brun-Ricalens F, Otte M. 2012. Le plus petit dénominateur commun : réflexion sur la variabilité des ensembles lamellaires du Paléolithique supérieur ancien d'Eurasie. Un bilan autour des exemples de Kozarnika (Est des Balkans) et Yafteh (Zagros central). L'Anthropologie 116(4):469-509. ; Zwyns, N. 2012. Small laminar blanks at Siuren I Rockshelter: technological & comparative approach. In Demidenko Y.E., Otte M. & Noiret P. (eds.) - Siuren I rock-shelter. From Late Middle to Epi-Palaeolithic in Crimea. Liège, ERAUL 129, 2012, p. 359-373. We thank the DFG (German Science Foundation) for funding this study.