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A REFERENTIAL FRAMEWORK FOR THE IDENTIFICATION OF PROJECTILE POINTS AND PROPULSION MODES BUILT AT THE TRACEOLAB.

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Abstract: The recognition of paleolithic weaponry have fascinated researchers since the beginning of the discipline and many methodological efforts have been invested to pursuit this goal. Insight in projectile technology is indeed highly relevant for understanding broader technological evolutions, subsistence strategies and behavioural variability. However, accurate identification of weapon elements in archaeological assemblages as well as adequate insight into the design and use of weapons has proven to be an important methodological challenge. These difficulties are particularly important if the aim is not only to identify projectile points, but also to approach propulsion modes.

The complexity of the reconstruction of the weaponry based on the macrofractures preserved on stone points stem from the high number of parameters that intervene in the case of an impact motion and that affect the formation of fractures. Resolving this type of challenge necessitates a complete decomposition of the problem.

Only a simultaneous work on each of the different aspects, nourished from different disciplines (experimental archaeology, fracture mechanics, traceology and ballistics) can isolate the key parameters that play a role in the impact fracture phenomenon and allow an understanding of their interaction.

In this communication, we will present how a large-scale projectile referential framework was gradually build up at TraceoLab through systematic controlled experimentation and how it serves as a basis for the identification of archaeological projectiles and propulsion modes in combination with data derived from fracture mechanics and ballistics. We will also discuss how we will further exploit this reference collection in view of an improved understanding of the evolution of projectile technology in the Palaeolithic period.

Communication orale, session utilisation / Oral communication, Utilisation Session.