

# Reflection on the research historical discourse of Keilmesser with tranchet blow from the European Late Middle Paleolithic

*Reflexion über den forschungsgeschichtlichen Diskurs zu Keilmessern mit Schneidenschlag aus dem späten Mittelpaläolithikum Europas*

Jens Axel FRICK<sup>1,2,4\*</sup>, Klaus HERKERT<sup>2,3</sup>, Christian Thomas HOYER<sup>1,2</sup> & Harald FLOSS<sup>1,2,3</sup>

<sup>1</sup> Department of Early Prehistory and Quaternary Ecology, Institute of Pre- and Protohistory and Medieval Archeology, Eberhard Karls University of Tübingen, Schloss Hohentübingen, Burgsteige 11, 72070 Tübingen, Germany; email: jens-axel.frick@ifu.uni-tuebingen.de

<sup>2</sup> Projet collectif de recherche (PCR) «Le Paléolithique supérieur ancien en Bourgogne méridionale) associated with UMR 6298 ARTeHIS at the Université de Bourgogne, Dijon, France

<sup>3</sup> DFG CRC 1070 «RessourcenKulturen» B01, Gartenstraße 29, 72074 Tübingen, Germany

<sup>4</sup> DFG Project 4015/1-1 «Multi-thematic studies on asymmetrically bifacially backed knives from the Late Middle Paleolithic. Research on equifinality and permutation on Keilmesser with tranchet blow using technological, research historical and experimental approaches.»

**ABSTRACT** - By focusing on *Keilmesser* or asymmetrically (bifacially) backed knives with a lateral tranchet blow modification on the cutting edge, this paper examines the research historical discourse of these protruding lithic objects of the European Late Middle Paleolithic.

The contributions of numerous researchers to the understanding of these remarkable tools and its placement in cultural entities are taken up and discussed. From Ch. Méray's three *Keilmesser* with tranchet blow from Grotte de la Verpillière I (Germolles, France) published in 1876, to the outstanding contribution of St. Kruckowski, who started to understand the relation between tool shape and production, and the long-lasting contribution of G. Bosinski formulating hypotheses about similarity-groups of assemblages in the Middle Paleolithic record of western Central Europe, to the contributions of the last 30 years formulating new hypotheses of assemblage clusters, such as *Keilmessergruppen*.

This paper illuminates different approaches of tool description, naming and industries (or cultural entity) attribution. The research history is marked by discussion about the connection between the site La Micoque and assemblages from throughout Europe containing *Keilmesser*. In addition, the chronological position of these assemblages is discussed, especially focusing on the *Pradnikhorizont*, an entity defined as assemblages containing *Keilmesser* with tranchet blow.

New research contributions show that tranchet blow modification in assemblages is either a regional or chronological marker in certain territories. However, it is not a Pan-European phenomenon that showed up during a short time span in the Late Middle Paleolithic, but a lithic production concept, which was performed in different times.

**ZUSAMMENFASSUNG** - Mit dem Fokus auf *Keilmesser* (welche auch als asymmetrisch-bifaziale Messer mit Rücken bezeichnet werden können), die mit einem lateralen Schneidenschlag an der Schneidekante modifiziert wurden, behandelt dieser Beitrag den forschungsgeschichtlichen Diskurs dieser bemerkenswerten lithischen Objekte des späten Mittelpaläolithikums in Europa.

Die Forschung zu diesen Werkzeugen beginnt mit der Abbildung von drei, als *Keilmesser* mit Schneidenschlag anzusprechende Artefakte durch Ch. Méray im Jahre 1876, dem Entdecker und Erstausgräber der Fundstelle Grotte de la Verpillière I (Germolles, Frankreich). Die Publikation der langjährigen Arbeiten von St. Kruckowski vor und kurz nach Ende des zweiten Weltkriegs zeigte, welch (modernes) dynamisches Verständnis dieser Bearbeiter bereits besaß. So begann er das Verhältnis zwischen Werkzeugform und dessen Produktion zu verstehen und beschrieb den Abhub von Schneidenschlägen zur Schärfung der Schneidekanten. Die Hypothesen von G. Bosinski zu Formengruppen (Gruppen von sehr ähnlichen Inventarkomponenten) des Mittelpaläolithikums haben die Forschung in Mitteleuropa nachhaltig geprägt. Im Laufe der Zeit erfuhr dieses System durch Ausgrabungen und Forschungen Modifikationen, die G. Bosinski selbst vor und nach der Jahrtausendwende in Publikationen bestätigte. Seit Anfang der 1990er Jahre wird der von D. Mania geprägte Begriff der *Keilmessergruppen* von zahlreichen Autoren verwendet, um Fundstellen des späten Mittelpaläolithikums mit einem Begriff zu belegen, der auf die Präsenz von *Keilmessern* (nach St. Veil et al. 1994 aber nicht als conditio sine qua non zu verstehen) in Inventaren hinweist.

Dieser Artikel untersucht die Beiträge einer Vielzahl von Forschenden zum Verständnis dieser bemerkenswerten Werkzeuge. Es werden verschiedene Ansätze zur Werkzeugbeschreibung und Namensgebung vorgestellt.

Im Weiteren wird die chronologische Position von Inventaren mit *Keilmessern* mit Schneidenschlag diskutiert. Dies geschieht besonders mit dem Fokus auf den *Pradnikhorizont*, einer zuerst von G. Bosinski definierten Einheit von Inventaren, die *Keilmesser*

\*corresponding author

mit Schneidenschlag besitzen. Neue Forschungsbeiträge deuten jedoch vermehrt an, dass die Schneidenschlag-Modifikation entweder ein regionales oder ein chronologisches Kennzeichen in bestimmten Territorien ist. Es scheint hingegen kein pan-europäisches Phänomen zu sein, das sich innerhalb einer kurzen Zeitspanne im späten Mittelpaläolithikum zeigte, wie der Name „Horizont“ andeutet. In regionaler Hinsicht ist hier das territoriale Umfeld der Fundstelle bemerkenswert, von der zuerst Keilmesser mit Schneidenschlag publiziert wurden, der Grotte de la Verpillière I. Hier sind durch neue Forschung zahlreiche Fundstellen in den Fokus geraten, die ebenfalls Keilmesser mit Schneidenschlägen besitzen und damit Überlegungen zu einem regionalen Ähnlichkeitscluster an Inventaren zulassen.

**KEYWORDS** - Prądnik, Pradnik, Prondnik, Prodnik, Proudnik, Prondnick, Faustkeilschaber, Faustkeilmesser, bifacially backed knife, asymmetrically bifacially backed knife

## Introduction

This paper discusses the research history of *Keilmesser* with tranchet blow (KMTBs), which is an abbreviation for *asymmetrically (bifacially) backed knives* with a lateral tranchet blow modification (TB) in a longitudinal manner on the cutting edge.

In this context, the short name *Keilmesser* (KM) is favored as synonym of the much longer term *asymmetrically bifacially backed knife* (ABBK), which is the combination of the terms *bifacially backed knife* (Jöris 2006) and *asymmetrical backed knife* (Migal & Urbanowski 2006). The German word *Keilmesser* is the singular as well as the plural form. Therefore, in using the abbreviation the plural is marked by an "s" (KMs). The name *Keilmesser* combines its wedge shape (in German *Keil*) in cross section and the supposed function as knife (in German *Messer*) and could be literally translated as "wedge knife".

The research history of *Keilmesser* and especially of *Keilmesser* with tranchet blow cannot be understood without explaining important terms used as synonyms for these tools. With this in mind, the following chapters mainly deal with alternative terms used as synonyms.

Although this phenomenon is mainly observed in the European Late Middle Paleolithic, examples of TB modification are known from earlier and later time periods, as well as from different world regions.

Lithic objects with a lateral tranchet blow modification of cutting edges are known from the West European Acheulian (Bordes 1971; Zuate y Zuber 1972; Tuffreau & Zuate y Zuber 1975; Wenban-Smith 1989; Chevrier 2006, 2012), but also from the Acheulian in Syria (Jagher et al. 1997; Chevrier 2012; Jagher 2016) or the Sahara region in Northern Africa (Caton-Thompson 1952; Schild & Wendorf 1977; Alimen & Zuate y Zuber 1978; Douze 2014). There is also evidence for TB modification on tools from Early Middle Paleolithic sites, such as La Cotte de Saint Brelade (Cornford 1986) or Mesvin IV (Soriano 2001). It is also present in the Early Middle Stone Age of Gademotta and Kulkuletti in Ethiopia before 183 ka BP, as Douze (2014) summarized.

Another line of evidence derives from assemblages after the Middle Paleolithic. A similar variant of sharpening along the cutting edge is to be found in

later times and seems to be a common feature on Font-Robert and Maisières points from the Gravettian at Spy, first recognized by Otte (1976), who also compared this kind of sharpening with the TB modification from other sites in Belgium. Later on, the particular sharpening was called "sharpening by a flat tip removal (or "coup de tranchet")." (Pesesse & Flas 2012: 261) or "enlèvement plan sommital" (Le Mené 1999). Klaric et al. (2015) discussed an ideal reconstruction of the resharpening process with the technique de Kostienki, a process that is very similar to a TB modification. The main difference, however, is that the preparation of the edge by means of orthogonal retouching appears to only be carried out on the dorsal surface. This could possibly distinguish the resulting detachment from a blank of tranchet blow. It must be borne in mind that the generated negatives and blanks, as well as the necessary convexities, edge and surface features do not technically differ from a TB modification.

In addition to the presence of TB modifications in a Paleolithic context there is evidence that this edge formation process was also performed in the Neolithic, as exemplified in the Levantine Neolithic (e.g., Moore 1982).

Research on *Keilmesser* with tranchet blow is intensively interwoven with discussions about the connection of the chrono-cultural entity Micoquian and the site of La Micoque. The aspect of chrono-cultural allocation, however, is not the focus of the paper. In this paper, we focus primarily on the research history of tools with a TB modification and its performance from the Late Middle Paleolithic of Europe. We examine the origin of the terms used for these enigmatic tools and the confusing terminology in the course of the research history.

## Techno-morphological definition of *Keilmesser* (and *Keilmesser* with tranchet blow)

Jöris (2006: 292) describes *Keilmesser* as follows: "[They are,] in general, bifacially worked [...] core tools possessing a single sharp working edge, which is formed by bifacial retouch from one side after the other, opposed by an unworked or roughly worked (in rare