

---

# Trying to explain the origin of the core-on-flake assemblage at Ifri n’Ammar site (North eastern, Morocco)

Houda Oudouche\*<sup>†1</sup>, Manuel Vaquero Rodríguez<sup>2</sup>, Abdesslam Mikdad<sup>3</sup>, Mustapha Nami<sup>4</sup>, Carlo Peretto<sup>1</sup>, and Ingrid-Morgane G. Gauvin<sup>5</sup>

<sup>1</sup>Department of Humanistic Studies, University of Ferrara (UNIFE, Italy) – Italie

<sup>2</sup>University of Rovira i Virgili and Catalan Institute of Human Paleoecology and Social Evolution (URV IPHES, Spain) – Espagne

<sup>3</sup>National Institute of Archaeology and Heritage Sciences (INSAP, Morocco) – Maroc

<sup>4</sup>Ministry of Culture (Morocco) – Maroc

<sup>5</sup>University at Albany (Suny, USA) – États-Unis

## Résumé

**Objective:** To examine the core-on-flake method that generate flakes from the ventral surface (known as ‘Kombewa flake’), in the North African technological and environmental context.

**Rationale:** Kombewa is well explored in North African Lower Palaeolithic considering its use for the production of large flake blanks for acheulean tools. However, it remains insufficiently characterized during the Middle Palaeolithic in many aspects such as its status, the aim of its production, and its management in settlement strategies.

**Hypothesis:** The raw material economy and mobility strategies of the prehistoric humans may have correlation with the use of Kombewa technique.

**Material and method:** The materials analysed were collected from the Middle Palaeolithic levels of the Ifri n’Ammar site (excavations from 1997 to 2004). Both qualitative and quantitative methods are included in the present study.

**Results:** The Kombewa at Ifri n’Ammar site is present as a form of partial exploitation of raw materials within a transport economy, while also applicable in various technical contexts. Conducted almost exclusively on flints of very small dimensions. The identification of several generations of flakes confirms that Kombewa is not restricted to the first flake removed. Indeed, the analysis of the directions of the axis P1 (flaking axis of the core-on-flake) and P2 (flaking axis of the Kombewa flake) shows numerous combinations of which the whole perimeter of the core-on-flake could be utilized. Moreover, the observed rounded distal end of Kombewa flakes in Ifri n’Ammar is an indication of all edges to be active (usable), suggesting that these flakes were used in cutting activity.

**Mots-Clés:** Kombewa, core on flake, Morocco, Middle Palaeolithic, lithic, economy, raw material

---

\*Intervenant

<sup>†</sup>Auteur correspondant: houda.oudouche@unife.it