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# Tell Arqa, Bronze Age Macro-Blades Debitage with Lever – Archaeological and Experimental Approaches

Florine Marchand\*<sup>1</sup>, Jérémie Vosges\*<sup>2</sup>, and Frédéric Abbès\*<sup>2</sup>

<sup>1</sup>Université Libre de Bruxelles, Crea-Patrimoine – Belgique

<sup>2</sup>ARCHEORIENT - Environnements et sociétés de l'Orient ancien (Archéorient) – Université Lumière - Lyon 2, Centre National de la Recherche Scientifique : UMR5133 – Maison de l'Orient et de la Méditerranée Jean-Pouilloux 7 rue Raulin 69365 LYON Cedex 07, France

## Résumé

Tell 'Arqa is situated in the Akkar Plain, North Lebanon. The site stratigraphy offers a complete chronology ranging from Neolithic to Mamelouk period. Due to its long chronological sequence and the richness of the occupations, Tell 'Arqa is a reference site for the Levantine coast. Particularly, the Early Bronze age IV level (ECL 5-6, 2500-2000 Cal. B.C.) is marked by concentric dwellings with surrounding streets, ceramic production of goblets and cups using potter's wheel, elliptic basalt grindstones, metallic tools and pins. BA IV lithic industry in Tell 'Arqa is characterized by imported macro-blades made by pressure with lever debitage.

The pressure debitage assisted by a lever is identified on the basis of the length average of the produced blades, the straightness of the ridges evoking the pressure and certain stigma including the general morphology of the butts. The blades are generally found broken and few technical elements allow the reconstruction of the debitage method. This situation leads us to an experimental study focusing on the possible techniques for macro-blades production, while respecting the knapping rhythms. In that context, a research team has been formed at the Archéorient Laboratory, Jalès antenna (Berrias-et-Casteljau, Ardèche, France).

Nowadays, the present recognition of the assisted pressure debitage largely depends on experimental studies. At the beginning of the 90's, two lever systems were experienced: P. Volkov's one using a rope and J. Pelegrin's lever allowing hundred kilograms of pressure with a long lever arm. These research permitted to recognize the pressure with lever as a debitage technique for macro-blades on archaeological sites from Chalcolithic to Bronze Age period in Europe and in the Near East. Our own experimentations about Tell 'Arqa Early Bronze Age benefited from the pioneer experimentations but also from other ancient technologies using levers, in particular traditional oil pressing. This results in a new type of easy to use lever allowing to reproduce the laminar products of the Bronze age IV found on the Levantine coast.

**Mots-Clés:** Early Bronze Age, Experimental Archaeology, Lever Pressure, Macroblades, Near East

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\*Intervenant