Petroarchaeology research into the Aterian lithic raw material of Bizmoune cave at Essaouira (Morocco)

Fatima-Zohra Rafi^{*†1}, Abdeljalil Bouzouggar^{‡2}, Mohammed Mouhiddine^{§3,4}, Rabie Outayad⁵, and Hafida Naim⁶

¹Faculté des Lettres et des Science Humaines Ben M'sik, Université Hassan II, Casablanca – Morocco ²Institut National des Sciences de l'Archéologie et du Patrimoine – Morocco ³Université Hassan II/Casablanca – Casablanca, Maroc, Morocco

⁴Institut National des Sciences de l'Archéologie et du Patrimoine (INSAP) – Av. Allal El Fassi angle

rues 5 et 7 Madinat Al Irfane, Hay Riad, Morocco ⁵CNESTEN – Rabat, Morocco ⁶Département de Géologie [Kénitra] – Morocco

Abstract

A petroarchaeological study was carried out on the lithic raw materials of "Bizmoune" cave, located in Essaouira. It mainly concerned the study of the *Middle Stone Age* groups' productions, in particular Aterian groups, in order to be able to determine their behavior towards the exploitation of resources in their environment. The objectives are to characterize raw materials used by prehistoric groups that occupied the cave of "Bizmoune", to locate primary and/or secondary sources of raw materials, and to try to specify the perimeter of mobility of prehistoric groups in their territory.

The answer to questions that are related to our problematic necessitated the application of an *ad hoc* methodology, including fieldwork (surveys in Essaouira's region) and laboratory work (petrographic, geochemical, and typological analysis of lithic collections).

This study made it possible to know the limits of macroscopic characterization and subsequently to prove the importance of microscopic and geochemical methods. The prehistoric groups of "Bizmoune" cave used for about seven types of rocks. Indeed, qualitative and quantitative data have shown that flint was the most preferred type by these groups.

Keywords: Geoarchaeology, petroarchaelogy, geology, geochemistry, geomorphology, petrography, lithic raw material, mobility, prehistoric groups, Upper Pleistocene, Bizmoune cave.

^{*}Speaker

[†]Corresponding author: fatimazohra.rafi-etu@etu.univh2c.ma

[‡]Corresponding author: abouzouggar@yahoo.fr

Corresponding author: mouhiddine@yahoo.fr