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# The bulb retouchers in the Middle Palaeolithic of the Levant

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## Résumé

Retouching stone implements in order to create preconceived tool forms, improve an edge sturdiness or refresh a worn edge is a practice documented since the Lower Palaeolithic. The retouching was conducted using various types of 'retouchers': organic (as bones, antlers and teeth) and inorganic (as stone pebbles).

A poorly known type of stone retouchers are the "bulb retouchers" (*outils à bulbe piqueté*): chipped stone artefacts that exhibit a concentration of impact marks (pits and fractures) on and around the bulb of percussion (Adler 2002; Tixier 2000). The identification of these artefacts as retouchers is based on similarities between the marks observed on bulb retouchers and the ones recognized on bone and pebble retouchers and on a series of experiments that replicate, through retouching activities, the marks observed on the archaeological material.

Bulb retouchers were first recognized by Praslov (1968) in the Crimean site of Rojok I. Since then, these artefacts have been reported in several other Middle Palaeolithic sites in the Crimean Peninsula, Europe, Caucasus and North Africa. Even though 50 years have passed since they were first described, bulb retouchers remain a poorly known phenomenon. The fact that bulb retoucher assemblages are usually limited to few specimens per site (1-15 artefacts), might be one of the reasons that prevented a thorough study of these implements. Here we present two assemblages of bulb retouchers from the Levant, retrieved from the Middle Palaeolithic open-air sites of Neshar Ramla and Quneitra. The bulb retouchers assemblage from Neshar Ramla originates from three stratigraphic units and is the largest known to date (n=156), while Quneitra assemblage (n=13) is more similar in size to the ones previously reported from other geographical regions. Use-wear analysis on Neshar Ramla material, accompanied by an experimental program, allowed to recognize two different ways in which bulb retouchers were held and used: horizontally (parallel to the edge of the retouched blank) and vertically (perpendicularly to the edge of the retouched blank). Our experiments show that using these two modes of retouching, different types of retouch scars were formed. We will show that retouched tools were systematically selected to be used as bulb retouchers, with special emphasis on pointed-convergent items in Neshar Ramla, and that these items had a long use-life and were part of the hunter-gatherers' personal tool-kits.

**Mots-Clés:** Bulb retouchers, Middle Palaeolithic, Levant, Lithic technology

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