

REINTRODUCING BUTT SCRAPERS (RACLOIRS SUR TALON): ANOTHER LOOK AT A NON-FORMAL TOOL TYPE

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ABSTRACT

Butt Scrapers from a Pottery Neolithic 5th millennium B.C. (uncalibrated C-14) site in Israel are presented. Their definition as a tool type following Crowfoot-Payne (1983) and Debenath and Dibble (1994) is refined. Definitions of Middle and Upper Paleolithic scrapers by Bordes are used to discuss typological, technological and functional aspects of this type. Technological characteristics seem to be central in defining this morphologically varied type.

INTRODUCTION

The term "butt scraper" was first introduced to the literature by Crowfoot-Payne (1983:626) in her summary study of the Jericho lithic assemblages. She based her classification on similar artifacts from the European Paleolithic (e.g., Pater-son 1937). Crowfoot-Payne decided not to use the French "Racloirs sur Talon" or its English parallel "Platform Scraper," for reasons unknown. The term "butt scraper" has become part of Levantine lithic terminology and we have decided to use it in order to avoid confusion.

The recent analysis of the flint assemblage from Nahal Zehora I, a Pottery Neolithic site in central Israel (Figure 1), has raised the issue of butt scrapers again, since the type constitutes a distinct group in this assemblage (Barkai 1996). Butt scrapers are known mostly from excavated Neolithic sites in the southern Levant such as Jericho, Nahal Zehora I, Nahal Zehora II (a multi-

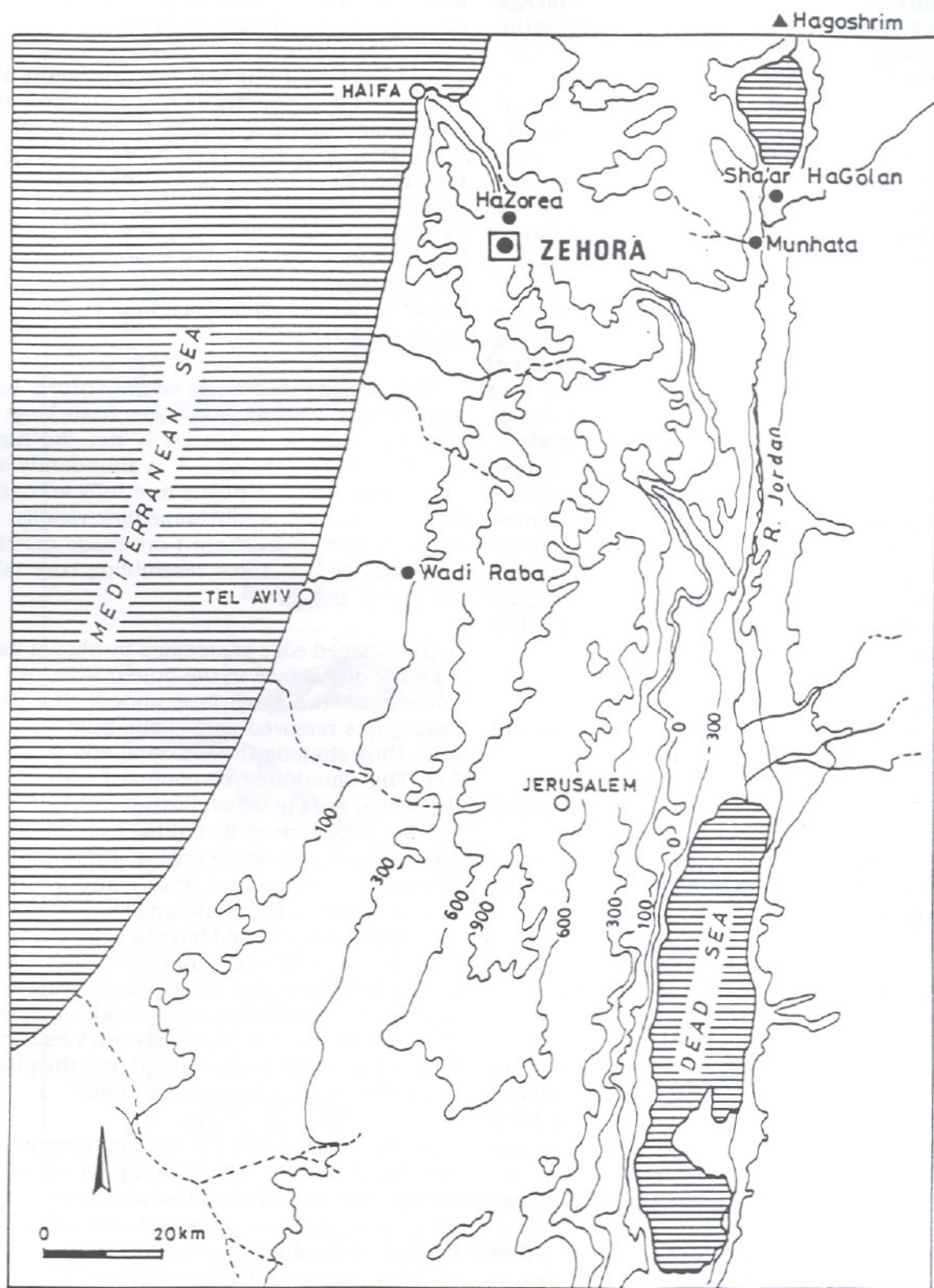
layer Pottery Neolithic site in the Menashe Hills), and Lod (a Pottery Neolithic site in central Israel), as well as from surface collections of Pre-Pottery Neolithic and Pottery Neolithic sites from the Hula Valley in northern Israel (Beisamoun and Ha-Goshrim). Butt scrapers appear in Epipaleolithic assemblages (the Kebaran of Nahal Hadera V), as well as in multi-layered tell sites such as Tell Megiddo (personal observations by the authors).

Butt scrapers are made on thick flakes and bear abrupt flaking from the dorsal face, partly removing the bulb of percussion (see the large scars at the base of the flake in Figure 2:3). Additional fine retouch appears along the ridge created between the dorsal face of the flake and the newly flaked area (see the fine retouch at the edge of the thick flaked area in Figure 2:3).

The objectives of this paper are: (a) to present the characteristics of butt scrapers using the flint assemblage from the Pottery Neolithic site of Nahal Zehora I, Israel; and (b) to promote the inclusion of butt scrapers as a specific type in late prehistoric Levantine lithic industries.

BUTT SCRAPERS - TYPE DEFINITION

Crowfoot-Payne (1983:626) described the butt scrapers in the Jericho Natufian as "Small flakes retouched and clearly used along the ridge between the striking platform and the dorsal face, the retouch being made from the dorsal face." In a footnote to this description she said that "this type is probably more widespread than the records suggest," and she referred to European examples



both from Paleolithic (Paterson 1937) and Iron Age (Clark & Fell 1953) assemblages. In describing the Proto-Neolithic Sultanian butt scrapers of Jericho, Crowfoot-Payne refined her observations, saying that butt scrapers are "small flakes with **scraper edge** made along the ridge between the striking platform and the dorsal face by retouch **on the striking platform**. The scraper edge is well worn and polished by use. The length of the edge ranges from 1.6-4.7 cm." (Crowfoot-Payne 1983:636; emphasis by the current authors).

Additional descriptions in the same study refer to PPNA Sultanian and PPNB (Crowfoot-Payne 1983: 654-655; 693) butt scrapers, presenting similar characteristics for each. In a recent English edition of the *Handbook of Paleolithic Typology* (Debenath & Dibble 1994:92), artifacts similar to butt scrapers were described as follows: "pieces also exist that exhibit scraper retouch on ... the platform surface itself. Such pieces generally go by the name *racloirs sur talon* or "scraper on the platform" though these have never been explicitly defined." The major characteristics of this type as described in the above sources are the following:

- they are made on flakes;
- they show scraper retouch;
- they are retouched along the ridge between the striking platform and the dorsal face;
- retouch direction is from the dorsal face;
- retouch is on the striking platform (concluded from the two previous points)

Using the material from the Pottery Neolithic assemblage of Nahal Zehora I from Israel, we wish to enlarge on these descriptions.

Butt Scrapers from Nahal Zehora I: A Case Study

Nahal Zehora I is a single component Pottery Neolithic site in the Menashe Hills on the southern fringes of Jezreel valley (Figure 1). Tested in 1987 and excavated in 1990 (Gopher 1987, 1993), the site provided scant architectural remains, an assemblage of domesticated fauna (goat, sheep, cattle and pig), a characteristic Wadi Raba ceramic assemblage (Orrelle 1993), and a rich flint industry. The lithic sample from the test excavation of 1987 did not include butt scrapers (Gopher & Orrelle 1989). Butt scrapers were found during the 1990 season in the assemblage recovered using a 2.4 mm mesh for all excavated sediments

which has recently been subjected to a thorough study by one of us (Barkai 1996).

The tool type discussed here represents about 1% (N = 48) of the retouched flint tools of an assemblage that may be described as typically Wadi Raba. It is dominated by burins (33%) and retouched blades and flakes (38%). Notches and denticulates (10%), sickle blades (6%), bifacial tools (2%), and truncations, scrapers, awls and borers (and varia) in small quantities constitute the remainder of the assemblage (altogether, 3902 tools). No arrowheads were found except for a single transverse one.

Butt scrapers are made on gray-brown flint of medium quality that originates from large flint nodules. This raw material is not the highest quality found on the site. It is abundantly available on the small plateaus and hills around the site, although not in the immediate vicinity. Butt scrapers at Nahal Zehora I are made mostly on flat, thick flakes, some resembling core tablets (Figures 2 and 3).

The shaped edge is modified by abrupt flaking from the dorsal face in the bulbar area and finer retouch on the ridge (see above). The abrupt flaking has removed part of the bulb of percussion, thus shaping the proximal end of the artifact. This should not be confused with thinning the bulbar area in which post-detachment modification is performed by flaking from the blank's platform in flat or acute angles. This should also be clearly distinguished from platform preparation, as noted by Debenath and Dibble (1994:92): "any retouch that could have been applied before the blank was removed from the core is not used as criterion for typing the piece, in other words, platform preparation is not typologically relevant. Thus, the problem with possible *racloirs sur talon* is that it must be demonstrated that the platform retouch is not platform preparation."

In accordance with the cited requirements, all the Nahal Zehora I butt scrapers show post-detachment retouch modification. Border cases in which it is not fully clear that the modification (flaking and retouch) has removed part of the bulb of percussion were not classified as butt scrapers. The butt scraper category in Nahal Zehora I is thus typologically and technologically clear. It joins other "low frequency" tool types such as bifacial tools, truncations, awls and borers. It is especially

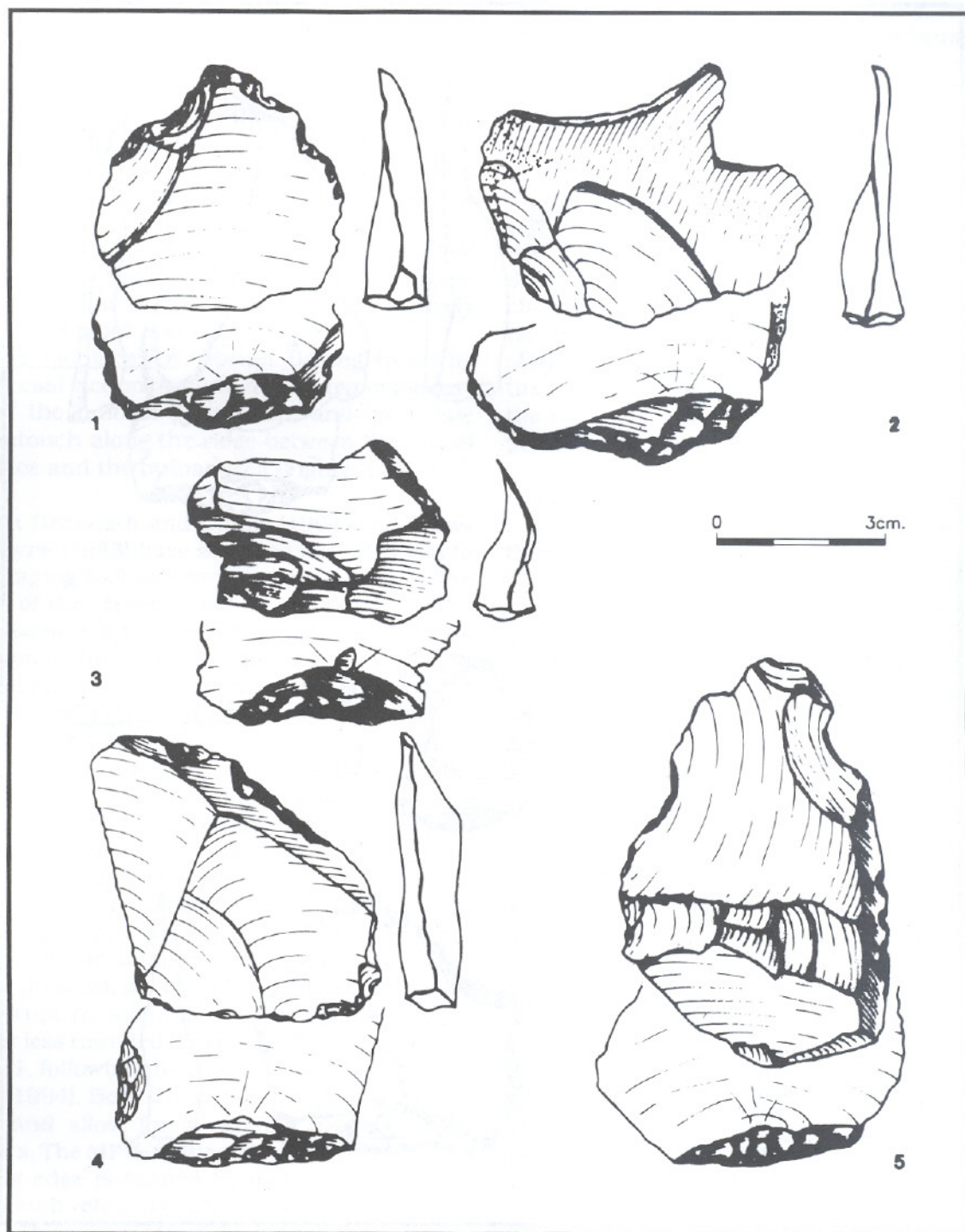


Figure 2. Butt scrapers from Nahal Zehora I.

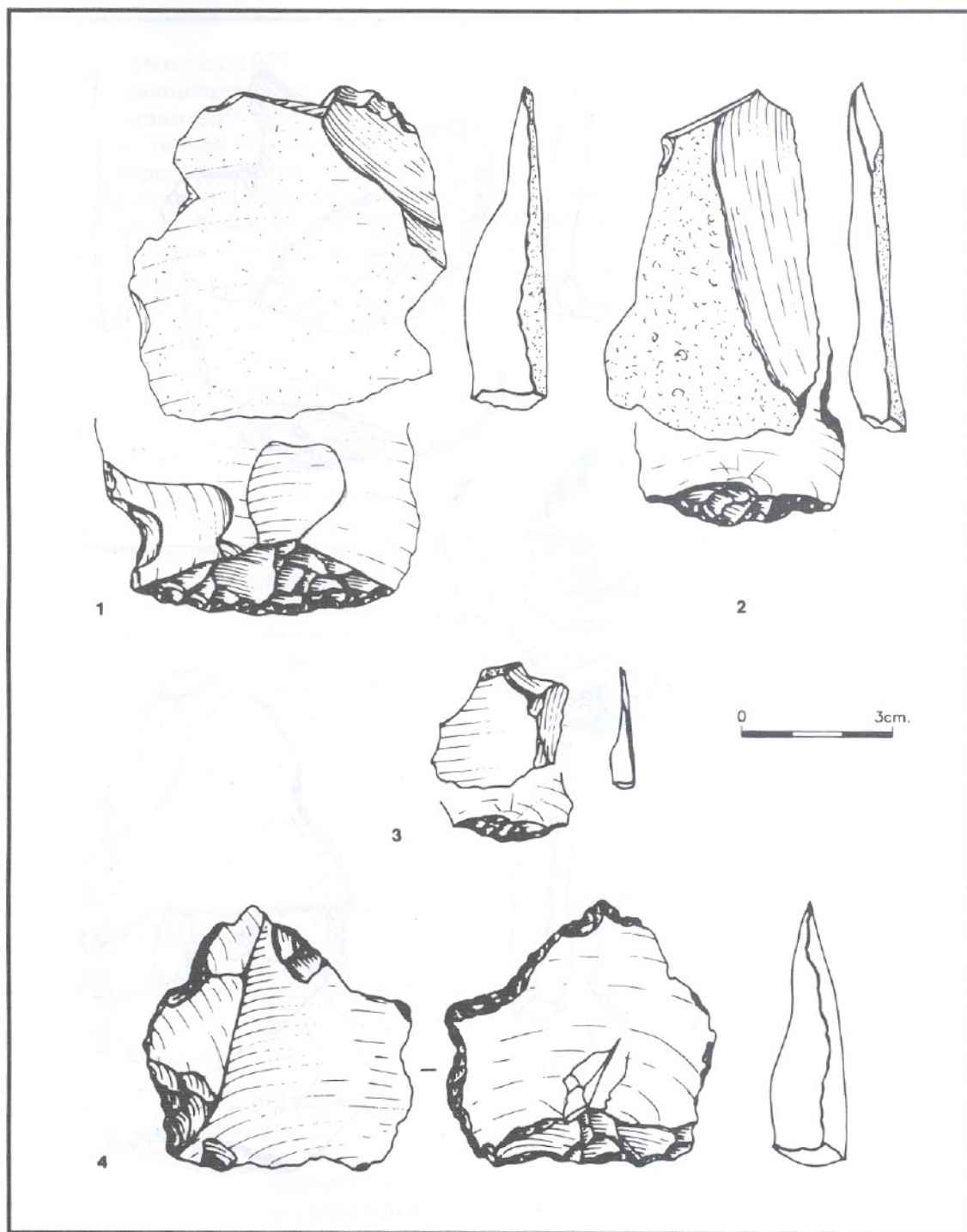


Figure 3. Butt scrapers from Nahal Zehora I.

important to note that end scrapers and side scrapers (altogether 1.3% of the tools, N= 52) do not constitute a much larger group in this assemblage.

DISCUSSION

The definition of butt scrapers, based on our experience in the Nahal Zehora I assemblage is as follows:

Blank Selection: flake shape and size are varied; however, butt scrapers are made on flakes with a flat dorsal surface and a relatively thick bulbar area.

Blank modification: abrupt flaking from the dorsal face on the bulbar area, removing part of the bulb of percussion; and later, fine retouch along the ridge between the dorsal face and the bulbar area (Figure 2:3).

Both Debenath and Dibble (1994) and Crowfoot-Payne (1983) have assigned butt scrapers to the scraping tool category, based mainly on the nature of the retouch. As a working hypothesis, this assignment is acceptable and in accordance with typo-technological tool definitions. However, a consideration of Paleolithic side scrapers and end scrapers reveals some difficulties when compared to our assemblage. That is, Middle Paleolithic (MP) scrapers were defined by Bordes (1961:25) as "An object made on a flake or a blade ... with continuous retouch that is flat or abrupt ... in order to promote a more or less cutting edge which is straight, convex ... with no deliberate notching or denticulation" (following the translation of Debenath & Dibble 1994). Upper Paleolithic (UP) end scrapers were defined as "Blade or flake presenting on one of its ends a continuous non abrupt retouch resulting in an edge that is more or less rounded and rarely straight" (Bordes 1961:31, following the translation of Debenath & Dibble 1994). Both the MP and UP definitions are broad and allow for a variable morphology of scrapers. The MP definition also suggests that the working edge is formed by continuous, regular and smooth retouch (with no notches or denticulation). The principal indicator of UP end scrapers is a rounded working edge. A straight working edge abruptly retouched on a narrow blank would be defined as a truncation (Debenath & Dibble 1994:95).

Taking into consideration Bordes' definitions for scrapers and assuming that these tools were

used for scraping, as indicated in some cases by micro-wear studies (e.g., Beyries 1988; Anderson - Gerfaud 1990), the use of the term "scraper" for the tool type presented here is not fully justified.

We have preserved the term "butt scraper," despite our reservations of its functional implications, in order to avoid terminological confusion. The use of the term "scraper," however, is inaccurate mostly because of the inconsistent shape of the "working edge" and the topography of the dorsal face. The morphological homogeneity that characterizes most of the scraper types is not recognizable in the case of butt scrapers. In spite of the above reservations, however, we believe that the technological attributes of butt scrapers allow the use of the term "scraper," setting aside the problem of function.

Our study of butt scrapers from Nahal Zehora I has emphasized the technological aspects of these tools, i.e., its blank characteristics, type of flaking and retouch, location, and bulb modification, rather than the morphology of the end product. The shaped edge of our butt scrapers is not always rounded. In some cases it is straight or irregular with occasionally "notched" areas, and it covers all (or most) of the tool's lower part (Figures 2 and 3).

END NOTE

Butt scrapers, like retouched blades or flakes, notches, denticulates and other non-formal tool types, appear throughout a long time sequence. However, butt scrapers are distinctive items easily recognizable by their technological qualities and blank selection. These may represent yet another sort of exploitation of blanks detached from cores in the course of reduction. Thick, flat flakes can be produced from a variety of different cores without being subjected to specific technologies and, thus, with no temporal limits. This exploitation may be considered kind of an "ad hoc" one, but should not therefore be excluded from systematic studies of flint tool assemblages. These items, as well as other non-formal elements, should be incorporated in our typo-technological analysis as an integral part of the attempt to reconstruct and explain lithic assemblages.

ACKNOWLEDGMENTS

We wish to thank S. A. Rosen for his help with this text and for his helpful comments.

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