

# A new type of tool from Umm az-Zamul Neolithic sites, United Arab Emirates

by Heiko Kallweit

Assemblages of Neolithic stone artifacts from the Arabian Peninsula are mainly known for the variety of large and small projectile points, commonly referred to as spearheads and arrowheads respectively. The bifacial pressure retouch process during the manufacture of this type of weaponry results in a highly sophisticated technical standard with great aesthetic value, which has, sadly, led to them being highly prized by private collectors. These eye-catching objects often overshadow less spectacular objects found in toolkits, such as scrapers, awls, drills and wedges.

These tool types have long been internationally classified. While the majority of the classifications are widely accepted, modifications are made from time to time, and some of the

classifications are still subject to debate. This is the case for Neolithic tool kits found on the Arabian Peninsula.

Initial descriptions (Kapel 1967; Gramly 1971; Edens 1982; Edens 1988; Inizan 1988) were made over twenty years ago, and there is now considerable discussion among lithics specialists on material from recent excavations and stored material from previous excavations. This note introduces and describes a new tool type, not previously reported from Neolithic sites inside the territory of the United Arab Emirates.

The new tool type forms part of an assemblage recorded from Neolithic (Late Stone Age) sites in the south-eastern deserts of the UAE, immediately north of Umm az-Zamul.

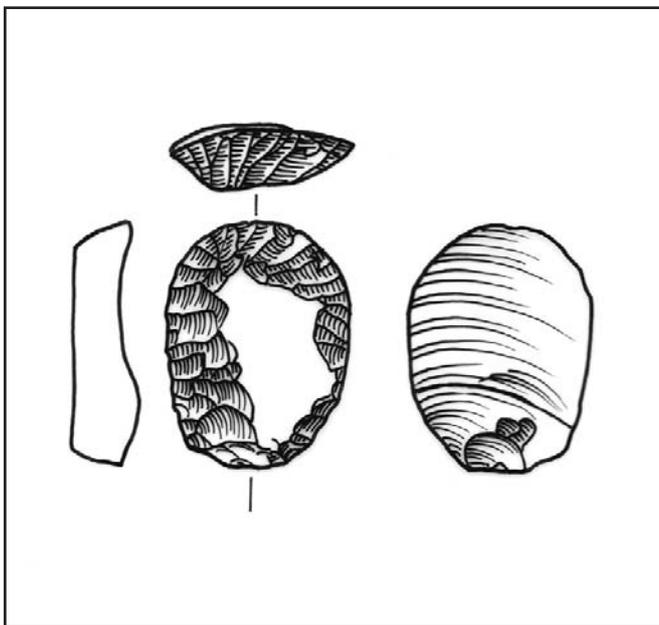


Fig 1:Thumbnail-scraper from Umm az-Zamul.



Fig 2: Newly-discovered scraper.



Fig 3: Newly-discovered scraper.



Fig 4: Newly-discovered scraper.

During the course of terrestrial habitat and wildlife surveys conducted by the Environmental Agency of Abu Dhabi, EAD, (previously ERWDA, Environmental Research and Wildlife Development Agency), the presence of lithic surface scatters were reported to the Abu Dhabi Islands Archaeological Survey (ADIAS).

An ADIAS team carried out a reconnaissance of the area in late 2003. During the subsequent three seasons of systematic survey and excavations, from 2004 to 2006, undertaken in association with the Department of Antiquities and Tourism in Abu Dhabi's Eastern Region, (now part of the Abu Dhabi Authority for Culture and Heritage), more than 2,600 Neolithic tools and pieces of tool production waste (debitage) were recorded and plotted in three dimensional positions from sites at Kharimat Khor al-Manahil and Khor al-Manahil (KAM). Additionally, areas of dense scatters were sieved and yielded more finds. Among the finds recorded during the field seasons were spearheads and arrowheads, awls and scrapers. (Beech *et al.* 2006a; Beech *et al.* 2006b; Kallweit *et al.* 2004; Kallweit *et al.* 2005; Kallweit *et al.* forthcoming) The provision of a grant, awarded by the Emirates Natural History Group (ENHG) to ADIAS in early 2006, has enabled the author to examine the collection in more detail.

The new tool type discovered belongs to the class of scrapers or scraping tools, which is further divided into sub-types, according to both the shape and the method of manufacture of the tool. Scrapers are also known from ethnographic research, and described in such publications. (Holmes 1974). As indicated by the name, the function is to scrape off material from a surface, mainly organic in origin. One example of the use of stone-made scrapers, shown from ethnographic studies, is to clean animal skins. A certain type of wear results from such actions, and a so-called "scraper-face" is created on the working edge of the tool (*Fig. 1*). It is likely that scrapers of different sizes were shafted by Neolithic toolmakers, for different purposes, such as the processing of skin, wood or even inorganic material like soft stone. Unlike the types of scrapers commonly found, which tend to have a rounded or almost straight working edge, the newly-identified type shows a concave working edge (*Figs. 2-4*). As a pre-form, the toolmakers chose a crested shaped flake.

A total of six such scrapers have been identified by the author from the Umm az-Zamul assemblages, whilst the purpose of one fragment remains uncertain. The concave working edge is regularly and steeply pressure retouched. The retouched notch is always between 2-3 centimetres wide. In the case of item KAM 282, (*Fig. 4*), the opposite edge is similarly pressure retouched. In all other cases, the opposite edge is naturally backed. Similar objects are reported from lithic collections from south-western and eastern Arabia (Edens 1982(Edens 1988)). They are generally referred to as retouched flakes, or, with certain exceptions, as side-scrapers. However, they differ significantly from the Umm az-Zamul artifacts in terms of their pre-form, since none of the other tools reported by Edens are made on crescent shaped flakes. Compared to other scrapers, the new type found at the KAM sites is easy to distinguish by its concave working edge and the crescent shaped flake it is made on.

It is, therefore, considered to be a newly-identified tool type within the typology of the Desert Neolithic.

Further studies of other Neolithic assemblages from the UAE and other parts of eastern and south-eastern Arabia are required to determine whether the new tool type is restricted in terms of its geographical distribution, or whether it had a broader distribution.

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