

## ROTSELAAR AND SCHULEN : TWO MIDDLE PALAEO-LITHIC SITES FROM LOWER BELGIUM

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In the late seventies, two Middle Palaeolithic sites were discovered in Lower Belgium on the occasion of sand exploitations in river valleys. The first site was discovered at Schulen, in the valley of the lower course of the Demer (about 10 km on the south-east of Diest). The second one is at Rotselaar, in the present alluvial plain of the Winge river (about 10 km on the north of Leuven). In both cases, the artifacts were exposed on the surface of a sedimentation plain, to which the sand was transported after exploitation. Consequently, no stratigraphical evidence is available for either of the sites. Also in both cases, faunal remains were exposed together with the artifacts.

### GEOGRAPHY - GEOLOGY

Both sites are situated in the alluvial plains of respectively Demer - lower course - and Winge (the construction of the quaternary Winge valley however, is due to the Dijle river). These valleys can be described as being an eastern off-shoot of the large Flemish valley. From a lithostratigraphical point of view, the Flemish valley is constructed as follows : at its bottom it is filled with peat sediments of Eemian age. Hereupon, fluvial coarse sands and gravels have been deposited, which in turn are covered with niveo-eolian or niveo-fluvial coversands and loam (1). These two complexes correspond to the bipartial division of the Würm glaciation. For the site of Rotselaar, the results of some drilling operations are available. These seem to fit in the general sequence.

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(1) P. Desmedt, 1973, Paleo-geografie en kwartair-geologie van het confluente-gebied Dijle-Demer, *Acta Geographica Lovaniensia*, 11, 115.

## THE INDUSTRIES

At Schulen, some 70 artifacts were collected. As raw material, exclusively flint was used. This flint was probably provided by the river, as is proved by the presence of some water-rolled, used nodules. The artifacts are heavily damaged by frost activity. Most of the artifacts are fresh, some however are worn. The latter category isn't mentioned here, because of its minor importance. From technological point of view, the industry shows a high percentage of Levallois artifacts. There are two Levallois cores. One of them is of a special type : the core has been prepared and a flake has been struck off on both sides of the core. An attempt to produce another flake has destroyed the core. The Levallois flakes are usually small. Their shape is oval or circular, some are rectangular. There is one fragment of a Levallois blade. Indeed, blades are very scarce in this industry.

Apart from the Levallois flakes, only 18 tools have been counted. These are mainly side scrapers. Within this category, the single convex side scrapers are dominant. Next to the side scrapers, there is an atypical backed knife and a bifacial artifact, probably a fragment of a biface.

Amongst the bone material, one bone is obviously worked by man. We are quite convinced that it has been worked by palaeolithic man : in the basin of the Maas for instance, some artifacts of Middle Palaeolithic manufacture are very similar to this one. On the right side of the bone, fourteen incisions have been cut. The bone is pointed in that area. This is likely to be the result of human action, because a slight trace, obviously caused by an act of cutting is visible, parallel to the direction of the fracture. An intense gloss is visible on the ribs between the incisions and the pointed edge.

Amongst the other bones, the following species have been determined by Dr. W.

Van Neer : *Elephas primigenius*

*Coelodonta antiquitatis*

*Rangifer tarandus*

*Bison priscus*

*Megaceros giganteus*

The presence of the last animal, which is typical of a rather mild climate, seems somewhat surprising with regard to the other species. On the association between the bones and the artifacts, nothing is known. However, the nature of the species determined and the presence of the bone artifact, make such supposition likely.

About 200 artifacts were collected in Rotselaar. As it was the case at Schulen, most of them are fresh and some are clearly rolled. In the fresh series, flint and, to a smaller extent, chert (phtanite), Wommersom quartzite and micaceous sandstone are used as raw materials. Flint and chert were provided by the river Dijle, Wommersom quartzite and micaceous sandstone are provided by the Landenian substratum. The flint, greyishly coloured, is sometimes of poor quality. It is always patinated. The colour

of the patina goes from darkish grey to almost black. Most of the artifacts show wind-gloss. Some of them are damaged by frost activity.

From a technological point of view, the industry is dominated by a number of flakes. Those with a plain butt are dominant. Blades are well represented but of poor quality. The Levallois artifacts are not abundant, but the technique is well developed: the central preparation and the faceted butts are performed with care. The flakes are oval or circular, some are rectangular or triangular (without being Levallois points). There is one remarkable blade out of Wommersom quartzite, that can be interpreted as being a Levallois blade. One Levallois point is present. Next to three Levallois cores, there are discoid, prismatic and indefinite cores.

The typological list comprises mainly side scrapers. The single convex types prevail within this category. Furtheron, a mousterian point, an end scraper and an atypical backed knife are present. Next to the side scrapers, the most important tool category are the bifaces. These bifaces are carefully worked. The edges are rectilinear and show a lot of secondary retouch. According to the definitions of Bordes, (sub) cordiform, (sub) triangular, amygdaloid and oval types are present.

The worn series comprises some 40 artifacts, mainly waste products. On its stratigraphical relation to the fresh group, nothing is known of course. Because the artifacts are very worn, we suppose that they have been transported over a long distance. Since all of the artifacts, except two, are small, this supposition gains strength. In general the material is little characteristic and there is not much to be said about it.

On the bone material of Rotselaar, no sufficient information is available up to now.

#### INTERPRETATION

The interpretation of these industries is rather complicated by the shortage of artifacts. According to their technological and typological characteristics, both industries are obviously Mousterian. Side scrapers are dominant in both cases, and within this category the single convex types prevail. Scrapers of Quina type are nearly absent, demi-Quina types are present. Upper Palaeolithic types are but poorly represented at Rotselaar and absent in Schulen. Notched and denticulate pieces are extremely scarce in both cases. The striking difference between the two industries is the presence of some typical handaxes in Rotselaar. Altogether, the industry of Rotselaar might point to a Mousterian of Acheulean tradition. The Schulen industry is not characteristic enough to give way to any further interpretation.

The importance of these discoveries lies in the fact that they provide us with information on the presence of Middle Palaeolithic man in a region, that had yielded very little data on this subject before. Both sites prove that Middle Palaeolithic man penetrated in the eastern part of the Flemish Valley, in order to settle down in the alluvial plains of the then rivers.

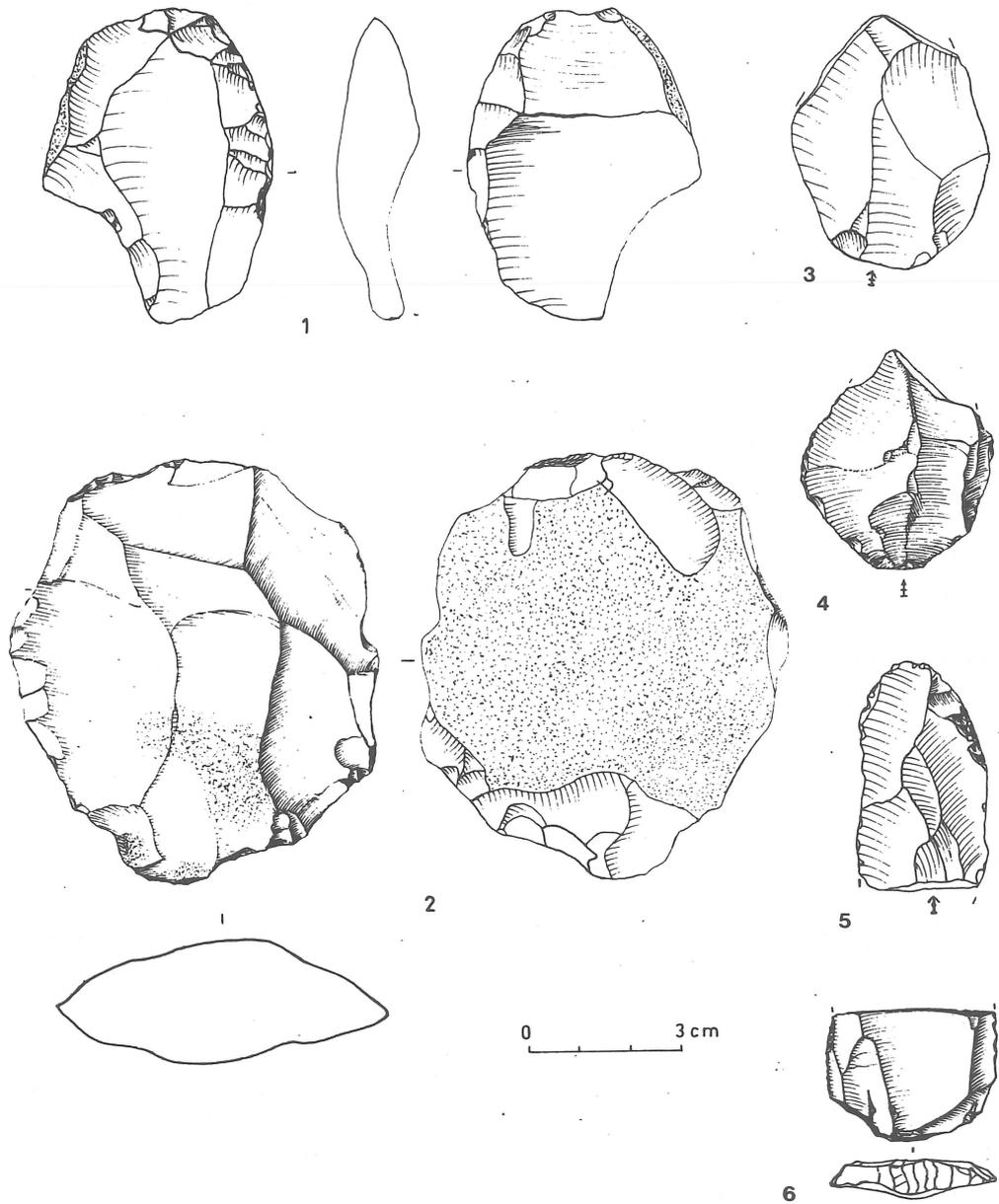


Fig. 1. SCHULEN : 1-2. Levallois cores; 3-4. Levallois flakes; 5-6. fragments of Levallois blades.

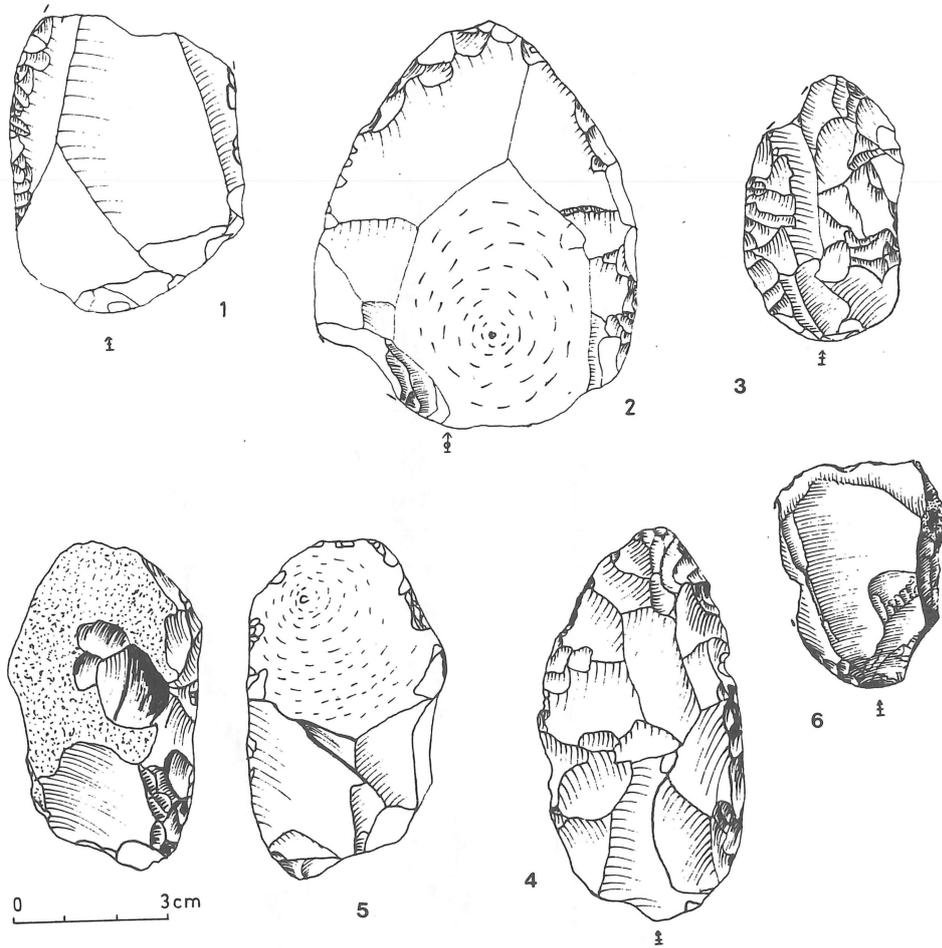


Fig. 2. SCHULEN : 1. single convex side scraper; 2. double convex side scraper; 3-4. convergent side scraper; 5. bifacial side scraper; 6. atypical backed knife.

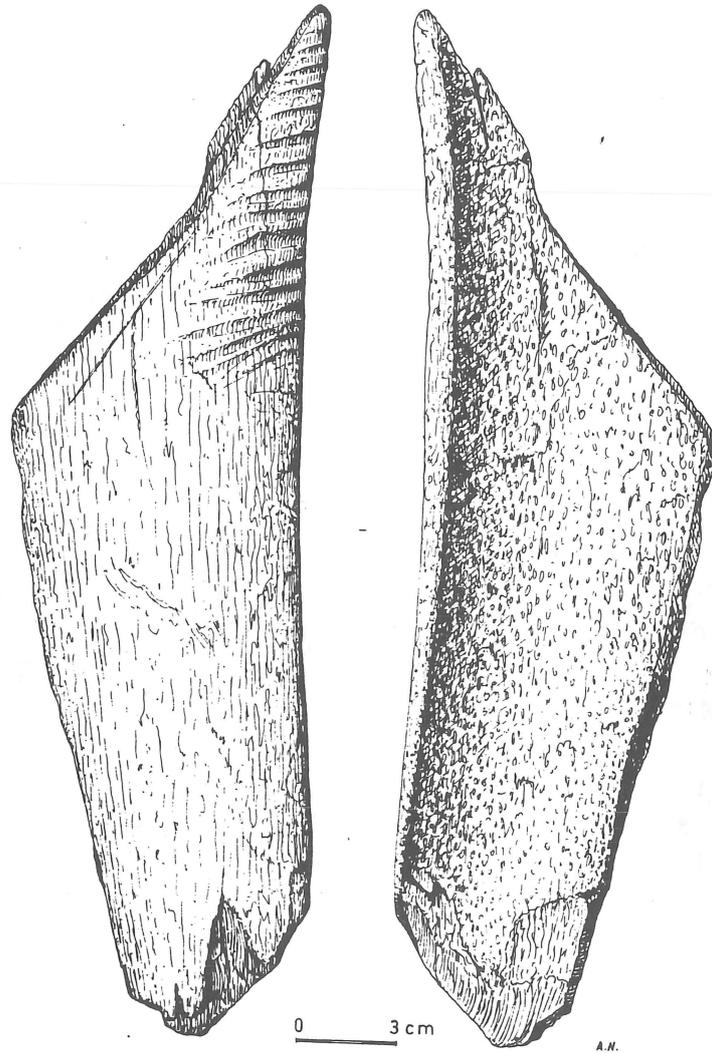


Fig. 3. SCHULEN : bone artifact.

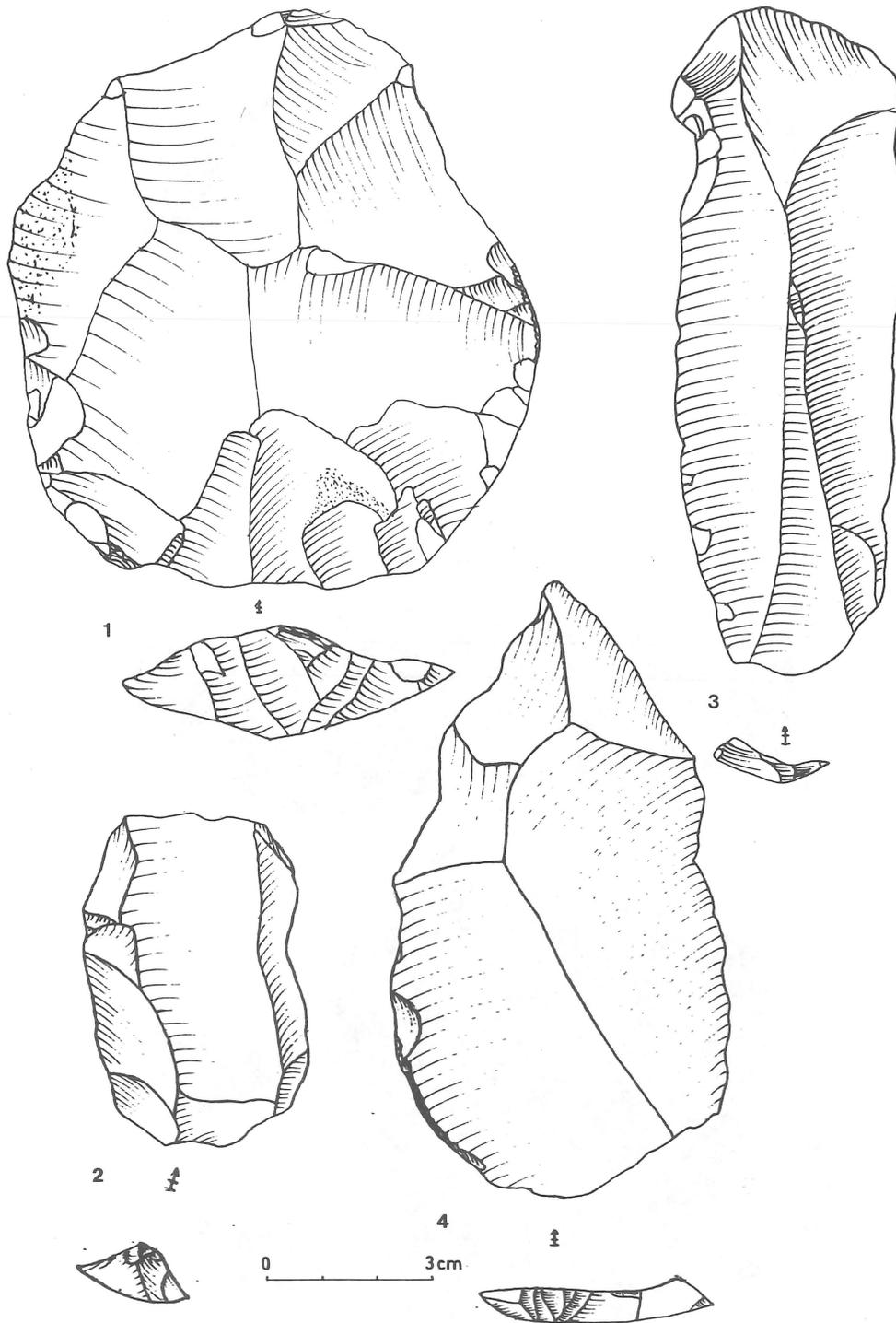


Fig. 4. ROTSELAAR : 1-2. Levallois flakes; 3. Levallois blade (Wommersom quartzite);  
4. retouched Levallois point.

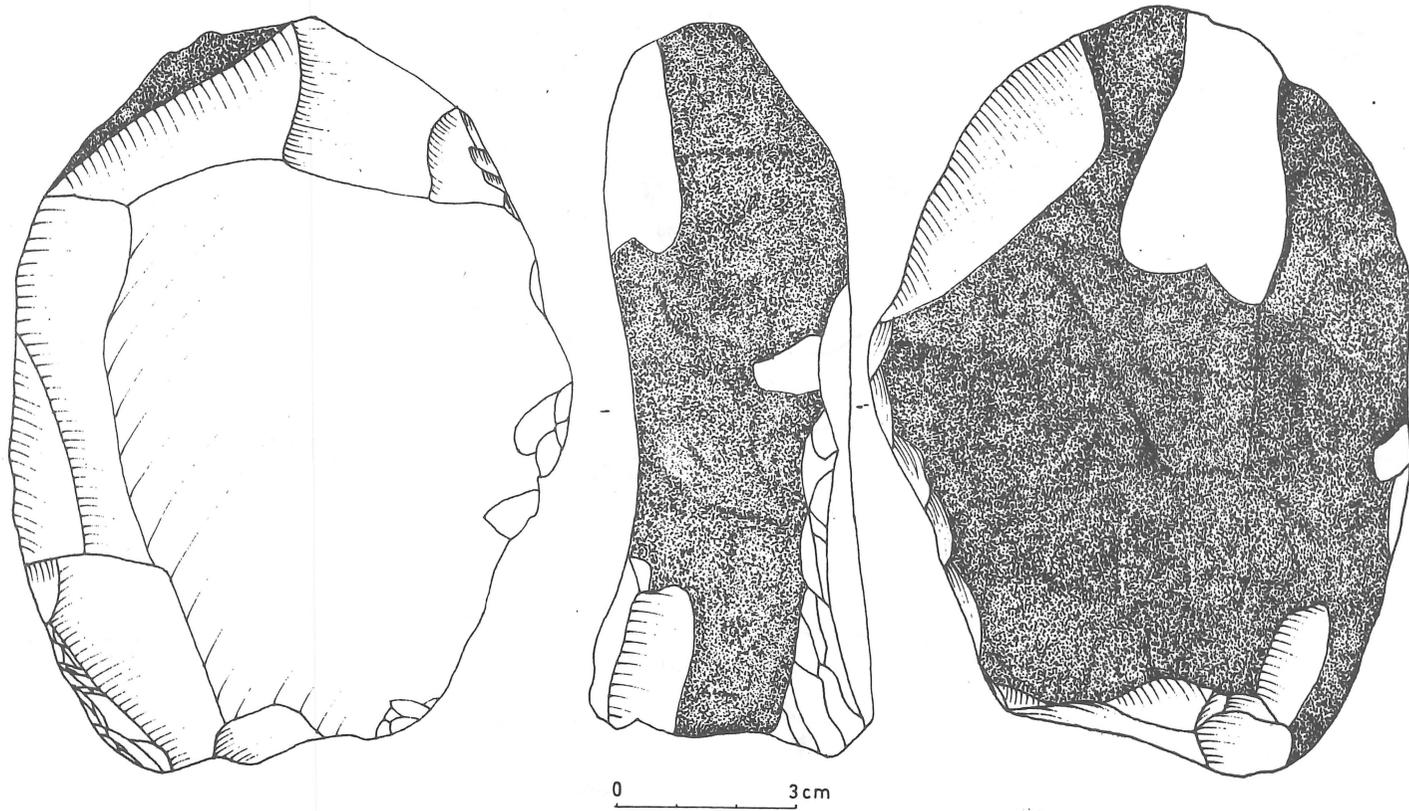


Fig. 5. ROTSELAAR : Levallois core.

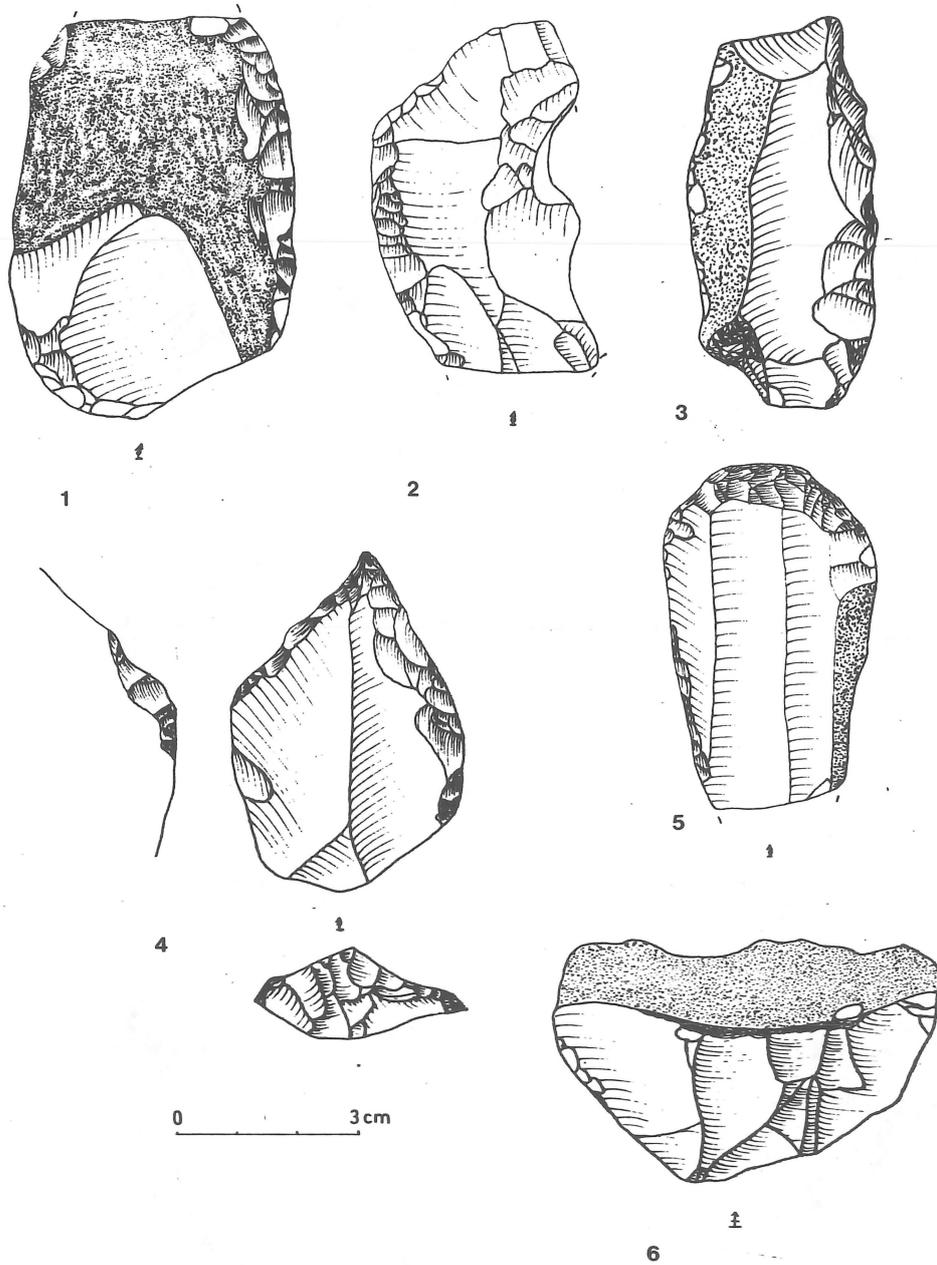


Fig. 6. ROTSELAAR : 1-2. single convex side scrapers; 3. single straight side scraper; 4. moustertian point; 5. end scraper; 6. core preparation element.

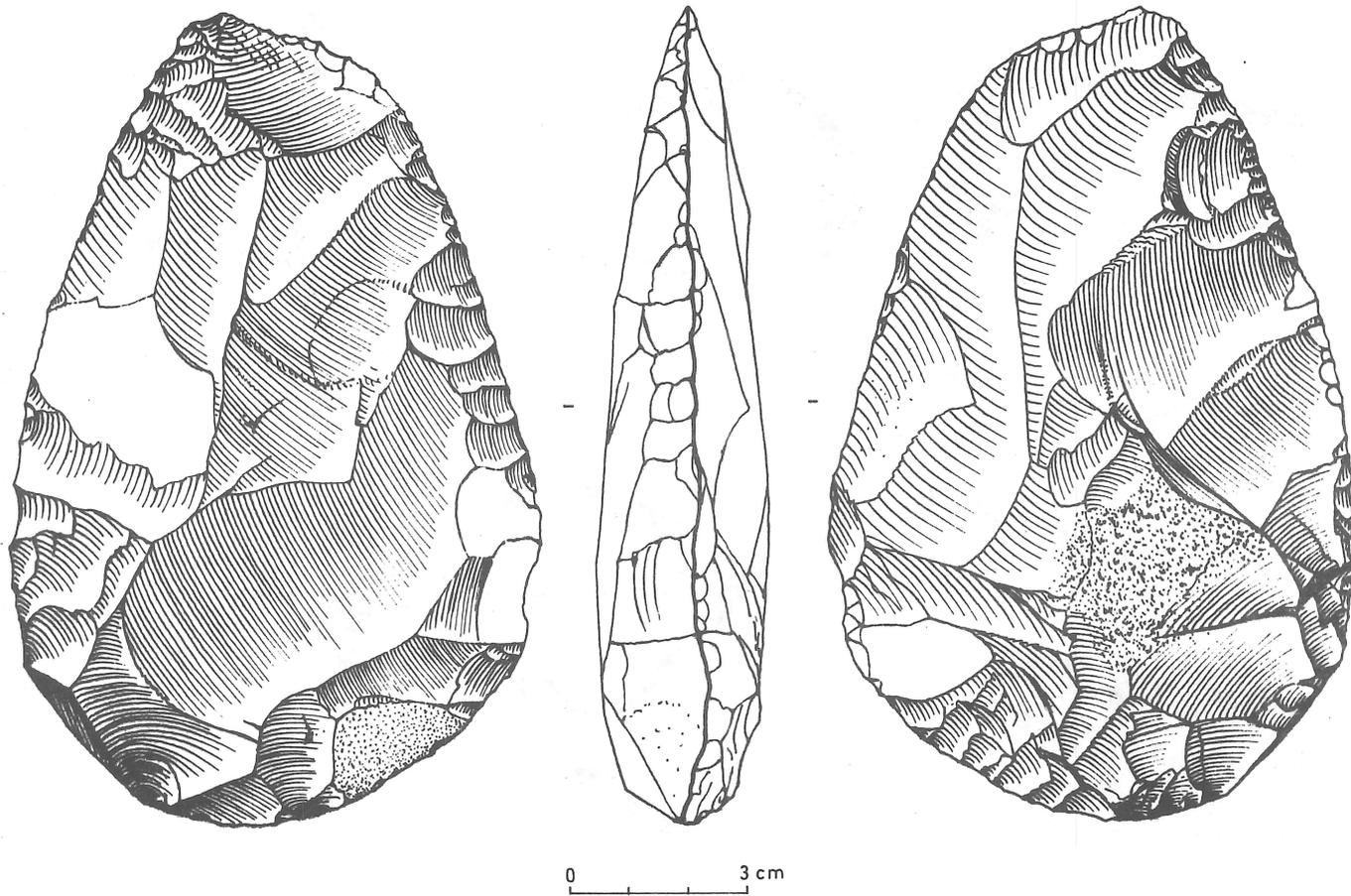


Fig. 7. ROTSELAAR : cordiform handaxe.

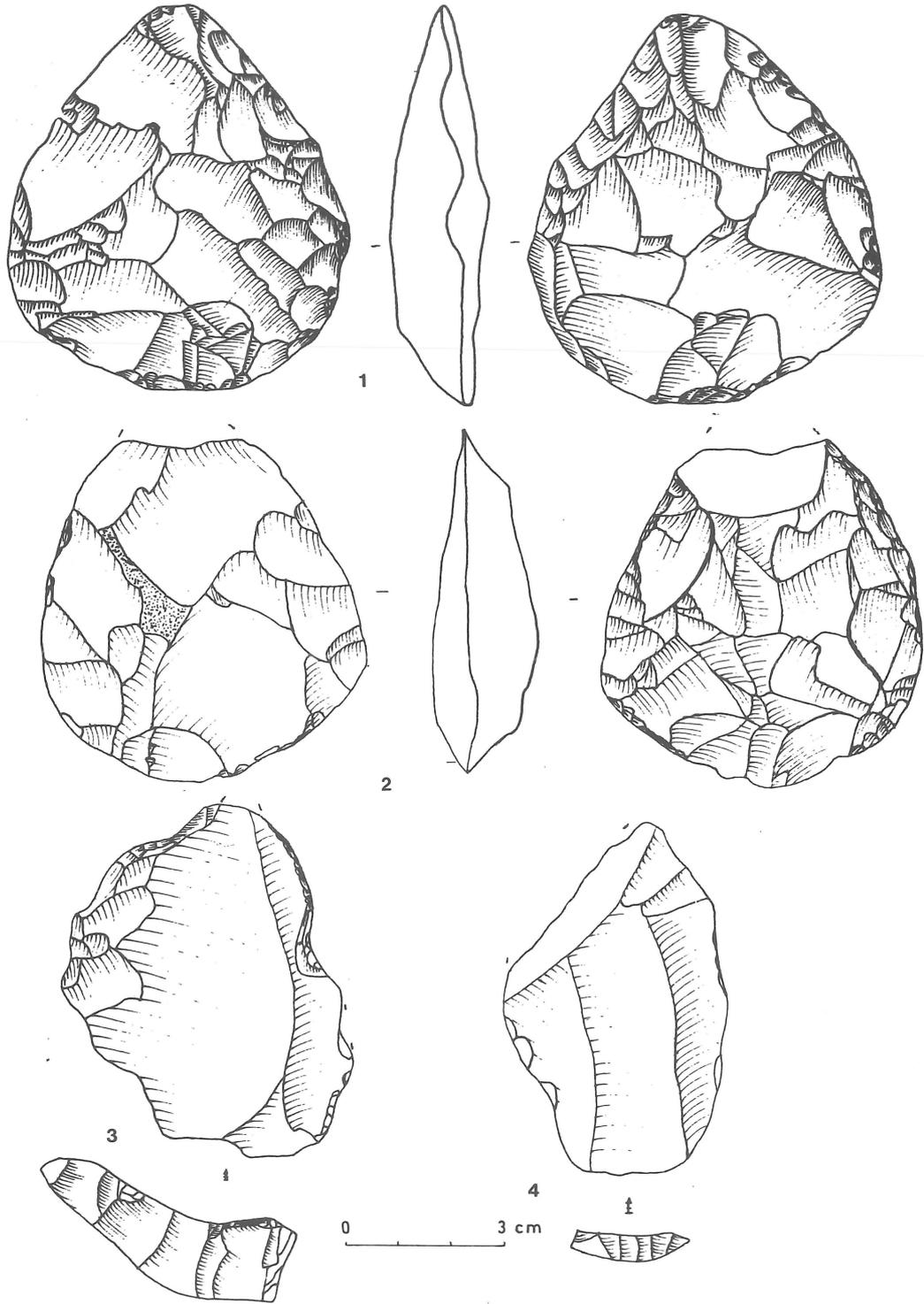


Fig. 8. ROTSELAAR : 1. cordiforme handaxe; 2. subtriangular handaxe; 3. notched Levallois flake; 4. Levallois flake. (3 and 4 : worn industry).