THE PALAEOLITHIC CULTURES OF THE HATAY PROVINCE

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The excavations and the researches we have made together in the Hatay have been reported in our joint paper. [1] In this new paper the Palaeolithic remains obtained in the excavations we made in the First Cave near the village of Mağracık in Samandağ and the Palaeolithic artifacts collected on the surface near the District (Kaza) Center of Altınözü and at Altındere (Avratlar Deresi), which is at the edge of Antioch, will be studied. [2]

THE PALAEOLITHIC CULTURES OF THE FIRST CAVE
UPPER LEVALLOISO-MOUSTERIAN CULTURE

In the First Cave the Upper Levalloiso-Mousterian culture found in the Vth Layer and in the IVth cultural layer above it includes points, racloirs, concave scrapers and, in the upper part, utilized bones.

CULTURAL LAYER V
(Pls. I - II) [3]

Points (Pl. I, figs. 4, 7, 10-14 and Pl. II, figs. 5-7 and 9-14). In the undisturbed parts of the cave, in the Fifth Layer 45 worked points were found, the majority of which are of triangular and the

[1] Şenyürek and Bostancı, 1958.

[2] For the locations of the First Cave, Altınözü and Altındere (Avratlar Deresi) and the researches we made in these places see Şenyürek and Bostancı, 1958.

[3] On this occasion we wish to express our thanks to Mrs. Eleanor Şenyürek and to Mr. Hüseyin Demiralp, who is the draftsman of the Faculty of Language, History and Geography, for drawing a part of the figures in the plates.

remainder of leaf form. In the majority of these the striking platform is prepared and forms approximately a right angle with the bulbar face (lower surface). The majority of the points are of medium thickness. The others are thin or, rarer still, thick. In the majority of the points the retouch is confined to the edges. In a specimen made on a thick flake a large part of the upper surface has been worked (Pl. II, fig. 9).

A large number of the points are of the standard Levallois type (Pl. II, figs. 11 and 13) seen in Europe, in the Bisitun cave of Iran [4] and in Palestine. [5] A few of the specimens are of the diagonal Levallois type (Pl. I, fig. 14 and Pl. II, fig. 14) described by Coon from the Bisitun cave of Iran. [6] In the remainder of the points (18 specimens) there is a ridge on the upper surface. One specimen approaches the Audi type. In only two out of 45 points, that is, in 4. 44 %, in order to thin the butt-end, a few small flakes have been removed from the bulbar face of this end.

Racloirs (Pl. I, figs. 1, 5-6, 8 and Pl. II, figs. 1-4 and 8). Forty-eight racloirs have been found in the undisturbed parts of the cave. In the majority of the racloirs the striking platform is prepared and forms approximately a 90 degree angle with the bulbar face. A small angle (25°-40°), which according to Movius is seen especially in the Mousterian racloirs in Europe, [7] has not been met in any specimen. Movius states that this form is observed among some Levalloiso-Mousterian points found in Bisitun cave.[8] In 36 racloirs one and in 12 two edges have been worked. In the majority of the racloirs the edges are convex and in the remainder straight. The large majority (44 specimens) of the racloirs are of what Garrod calls the "end-bulb" type. [9] Two of these are of Garrod's "side-bulb" [10] and two of the "oblique-bulb" type.[11]

In the Tabūn cave, in Palestine, racloirs of "oblique-bulb" type are found in Layer D, representing the Lower Levalloiso-Mous-

[4] See Coon, 1951, p. 57 and Pl. I, figs. 4-5.
[5] See Garrod, 1937, Pl. XXXIV, figs. 2-3.
[6] Coon, 1951, p. 57 and Pl. I, fig. 7.
[7] See Movius, 1951, p. 91.
[8] See ibid., p. 91.
[9] Garrod, 1937, p. 71.
[10] Ibid., p. 71.
[11] Ibid., pp. 77 and 79.

terian, more frequently in the Upper Acheulean (Micoquian) and Upper Acheulean layers and sparsely in the level which Garrod attributes to the Tayacian culture (Layer G)., but not in Layer C, representing again the Lower Levalloiso-Mousterian, nor in the Upper Levalloiso-Mousterian Layer (Layer B) of this cave. [12] For this reason Garrod believes that racloirs of "oblique-bulb" type seen in Layer D do not belong to this level. [13] However, the situation existing in the First Cave shows that this older tradition, that is, the "oblique - bulb" type, has continued into the Upper Levalloiso-Mousterian stage. Thus, it is probable that racloirs of this type found in layer D of Tabūn cave belong to the Lower Levalloiso-Mousterian culture.

In only one of 48 racloirs (2.08 %) a few small flakes have been removed from the bulb end of the bulbar face.

Concave scraper. In only one scraper one of the two worked edges is concave and the other convex. This scraper is of the "end-bulb" form.

Disk. Only one small example has been found (Pl. I, fig. 9).

In Layer V, in addition to the worked points and scrapers, a large number of flakes were found. A small number of these show traces of usage. Among these some Levallois flakes of moderate size draw the attention (Pl. I, figs. 2-3).

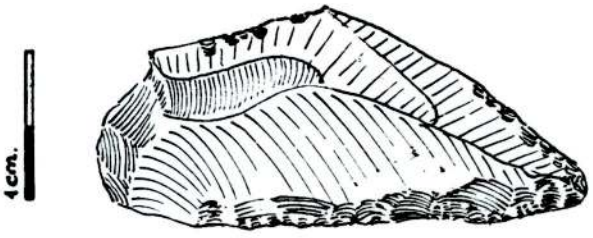
In the Vth layer no worked or utilized bone tools have been encountered.

CULTURAL LAYER IV
(Pls. III-IV)

Points (Pl. III, figs. 11-17 and Pl. IV, figs. 7-16). Of the 36 worked points found in Layer IV, in the undisturbed sections of the cave, the majority are of the triangular and the remainder of leaf shape. The types seen in cultural Layer V continue also in this layer. In this layer (IV) the points with a ridge on the upper surface, in comparison with Layer V, show a tendency to increase. In the majority of the points the striking platform is prepared and forms

[12] See ibid., pp. 71-89.
[13] See ibid., p. 77

approximately a right angle with the bulbar face. In only 9 examples the angle is more than 90 degrees. In five of these there are more than one facet and in four one facet on the striking platform. In only one point the striking platform forms an acute angle with the under surface. According to Movius this type is found in the points from the Bisitun cave of Iran and in Europe it is seen more in racloirs and sometimes in points. [14] Although this type, not found in Layer V, occurs in Layer IV, it is very rare. In one of the points (Pl. IV, fig. 9) the butt-end has been trimmed on both edges to produce a stem. One point recalls the Chatelperron type (Pl. IV, fig. 8). On the other hand, the point illustrated below approaches the Audi type. Out of 36 points in only one (2. 77 %) a couple of small flakes have been removed from the bulbar face of the butt-end in order to thin this part.



Racloirs (Pl. III, figs. 5-10 and Pl. IV, figs. 1-6). Amongst the 43 racloirs found in the undisturbed parts of the cave, the types seen in Layer V continue. In 32 specimens one edge and in 11 two edges have been retouched. In the majority of the racloirs the edges are convex and in the others straight. Most of the racloirs are of the "end-bulb" type. One of them is of the "side-bulb" and one of the "oblique-bulb" form. In the majority of the racloirs the striking platform is prepared and forms approximately a right angle with the bulbar face. In 13 specimens the angle exceeds 90 degrees. In 9 of these the striking platform shows one, and in 4 more than one facet. The bulbar face of only two racloirs (4.65 %) has been retouched. In one of these a few small flakes have been removed from the part of the bulbar face containing the bulb of percussion. On the other hand, in the second specimen the bulbar face along one edge has been retouched.

[14] Movius, 1951, p. 91.

Concave scrapers. All three available specimens are of "end-bulb" type. There is no retouch on the bulbar faces of these. No disk has been found in this layer.

In Layer IV, in addition to the points and scrapers mentioned above a large number of flakes were found among which there are some Levallois forms (Pl. III, figs. 1-4). In some of these flakes there are signs showing that they have been utilized. In this layer the proportion of Levallois flakes to other flakes is smaller than in Layer V.

Bone tools. In the fourth cultural layer some utilized bone fragments have been found (Pl. IX, figs. 6-9 and 12-13). A bone point, found in Layer IV in Pit I, of which one side on the tip portion is rounded may possibly have fallen from the layers above (Pl. IX, figs. 14-15). The tool shown on Pl. IX, figs. 10-11, is a well-made and sturdy point. It is not known to which layer this bone point, found at the border of the mixed part in Pit V, belongs. However, we consider it probable that it may belong to cultural Layer III or II.

In general, it may be stated that the industry of Layer IV is a more evolved continuation of that of Layer V. The Levallois character of the industry is more marked in Layer V than in Layer IV.

The average length measurements of the points and racloirs from Layers V and IV are listed below (Table I). [15]

Table I

	Point (Max. Length)	Racloir (Max. Length)
Vth Cultural Layer (42 points and 47 racloirs)	52.96 (33.3-89.5)	55.16 (39.0-87.5)
IVth Cultural Layer (35 points and 42 racloirs)	52.52 (37.0-92.6)	53.39 (35.0-81.5)

According to Garrod in the Tabūn cave of Palestine the lengths of the majority of the Upper Levalloiso-Mousterian artifacts range between 40 and 60 millimeters, [16] and the lengths of the greatest

[15] The figures in parentheses represent the minimum and maximum.

[16] See Garrod, 1937, p. 72.

part of the Lower Levalloiso - Mousterian implements vary between 70-95 millimeters in Layer C,[17] and from 60 to 80 millimeters in Layer D. [18] These figures show that the lengths of the points and racloirs found in Layers V and IV of the First Cave come close to the dimensions of the Upper Levalloiso-Mousterian implements of Palestine. The Upper Levalloiso-Mousterian points and racloirs of Samandağ, and of Palestine also, are smaller than the specimens found in the Lower Levalloiso-Mousterian industries of Palestine.

Garrod reports that a hand-axe has been found in the Upper Levalloiso-Mousterian industry of Mugharet el-Wad in Palestine. [19] Kökten also records that in the cave of Karain of Antalya hand-axes have been found in the Mousterian I as well as in Mousterian II level, [20] which corresponds to Layers V and IV of the First Cave. On the other hand, no hand-axes have been encountered in the Vth and IVth layers of the First Cave, which is also the case in the Mousterian level (Layer D) of the Shanidar cave in northern Iraq. [21]

According to Zeuner the Lower Levalloiso-Mousterian industry of Palestine probably corresponds to the latter part of the Riss-Würm Interglacial and the Upper Levalloiso-Mousterian industry, which folows it, corresponds to Würm I. [22] On the other hand, Vaufrey attributes layers E-B of Tabūn and layers G-D of Mugharet el-Wad in Palestine as a whole to the Würm gacial period. [23] That is, Vaufrey refers the Upper Levalloiso-Mousterian of Palestine to Würm II. [24] However, the correspondence of layers D-C of Tabūn cave in Palestine, representing the Lower Levalloiso-Mousterian, to a long period of aridity, which had been continuing since the

[17] See ibid., p. 76.

[18] See ibid., p. 78.

[19] See ibid., p. 54.

[20] See Kökten, 1955, pp. 276 and 289-290.

[21] See Solecki, 1955, p. 419. According to Şenyürek, the skeleton of a young infant found in Layer D of Shanider cave belongs to the Neanderthal group (see Şenyürek, 1957, a and b.) However, again according to Şenyürek, the features of the milk teeth of this infant found in the Mousterian stratum of Shanidar cave indicates that it represents a new form of the Neanderthal group (see Şenyürek, 1957, a and b).

[22] See Zeuner, 1952, figs. 73 and 80. See also Kökten, 1955, pp. 273 and 286.

[23] See Vaufrey, 1939, p. 619.

[24] See ibid., p. 619.

last part of Upper Acheulean (Micoquian) stage, [25] supports the view of Zeuner outlined above. [26]

In addition to a large number of stalactite fragments found, the presence of a lime-cemented, hardened layer in the middle of Layer IV in the First Cave indicates that at the time when this layer was formed the rainfall had increased.[27] For this reason, we consider it probable that Layer IV of the First Cave is contemporary with the maximum advance of Würm I. A broken tooth of a lion was found in Layer V, the Levallois character of which is more marked. Thus it is probable that this layer may go back to the very beginning of Würm I.

THE UPPER PALAEOLITHIC (AURIGNACIAN) CULTURE

The Upper Palaeolithic (Aurignacian) culture, represented by the third and second cultural layers, in a large part of the cave has been, especially in the second layer, destroyed in the Roman period. The situation seen in the undisturbed area under the rock indicates that the quarrymen who worked in the cave [28] during the Roman period, even in the undisturbed areas of the cave, had dug the second cultural layer and had levelled the floor.

In cultural Layer III it is seen that the racloirs are lost, the worked triangular points peter out and then disappear, and their place is taken by blades, long Aurignacian points, end-scrapers, round, steep and nose scrapers and burins.

CULTURAL LAYER III
(Pls. V-VI)

Points and blades (Pl. V). Out of the 14 points found in the undisturbed areas of the cave, nine show broad flat retouch along one or two edges. The others are unretouched. The points are gen-

[25] See Bate (1937, pp. 145-148 and fig. 1) for the climatological conditions prevailing at the time Layer E (Upper Acheulean-Micoquian) and Layers D-C (Lower Levalloiso- Mousterian) of Tabūn cave, in Palestine, were formed.

[26] See Zeuner, 1952, p. 231.

[27] For this hardened layer see Şenyürek and Bostancı, 1958, pp. 149-150 and 159.

[28] See ibid., p. 149 and Pl. VIII

erally long and narrow (Pl. V, figs. 3, 4, 9, 11 and 12). Only three triangular points, found in the lower part of Layer III, recall the Upper Levalloiso-Mousterian examples and may have been mixed from the lower layer. In 11 of these points, seen from the side, the lower surface is concave. On the other hand, in the three points approaching the Upper Levalloiso-Mousterian type the bulbar face is flat. In three of the points, when viewed from the tip, it is seen that the implement is more or less twisted.

Only two of the 14 points found in cultural Layer III approach the Chatelperron type (Pl. VI, figs. 11-12). It is probable that the point of Chatelperron type found in the mixed Pit II and shown on Pl. XI, fig. 2, belongs to Layer III.

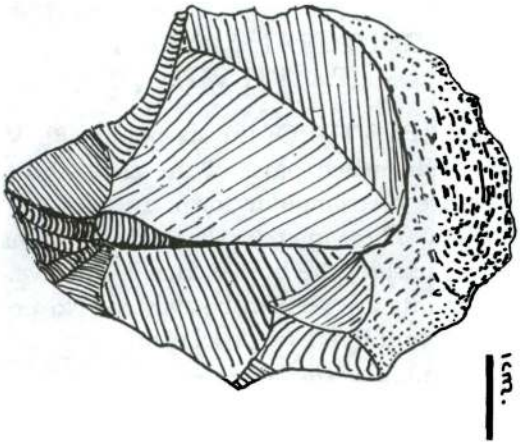
In five of the 14 blades found in the undisturbed parts of the cave one or two edges are retouched (Pl. V, figs. 1,2,5,6,7,8 and 13). Nine specimens exhibit signs of usage. Along one edge of three blades the original flint surface has been retained. In 11 points, when viewed from the side, the lower surface is seen to be concave. Moreover, when viewed from the end, 4 of these are observed to be twisted.

Round scraper. An extensive portion of the margin of a specimen found exhibits steep retouch (Pl. VI, fig. 9).

End-scrapers. In the three end-scrapers found in the undisturbed areas of the cave only one edge has been trimmed (Pl. VI, figs. 7, 8 and 10). There are signs on the edges of an end-scraper indicating that this has at the same time been used as a knife. The lower surface of two end-scrapers is slightly concave. One of these, when viewed from the end, is seen to be twisted.

Nose-scraper. The specimen found at the base of Layer III and shown below is a keeled and steep nose-scraper. Of the Aurignacian nose-scrapers found in the vicinity of Adıyaman, those depicted by Pittard also appear to be steep.[29] The form of the nose-scraper found at the base of cultural Layer III of the First Cave, when viewed from above, recalls a specimen found in Mugharet el-Emireh in Palestine.[30]

[29] See Pittard, 1928-1929, figs. 19-25.
[30] See Turville-Petre, 1927, Pl. VI, fig. 2.



Steep scraper. One specimen found in the undisturbed area, which is shown on Pl. VI, fig. 5, appears to be a steep scraper of Garrod's "oblique-fronted" type.[31]

Flake-scrapers. Two examples have been found in the undisturbed part of the cave.

Borers. In the undisturbed sections of the cave five borers were found.

Burins. The three burins (Pl. VI, figs. 1-3) found in the undisturbed areas of the cave are of Bourlon's "bec de flûte" type. [32] In two of the burins the working edge is twisted, as in some Middle Aurignacian examples of Palestine. [33] The other end of the burin shown on Pl. VI, fig. 1, may have been used at the same time as a borer.

Bone tool. The bone tool shown on Pl. IX, figs. 3-5 is a well made chisel.

The Emireh points found in the Lower Aurignacian level in Palestine were not encountered in the third layer, even in the mixed part.[34] Furthermore, no "Font-Yves" points, seen in the Middle Aurignacian in Palestine, were found in this layer. [35] It may also be recorded here that points of Chatelperron type are also rarely seen in this layer.

[31] See Garrod, 1937, p. 42.
[32] See Bourlon, 1911, p. 268.
[33] See Garrod, 1937, pp. 45 and 48.
[34] For Emireh points see Garrod, 1937, p. 50.
[35] For "Font-Yves" points see Garrod, 1937, pp. 47-48.

CULTURAL LAYER II
(Pls. VII-VIII)

Points and blades (Pl. VII). Of the six points (Pl. VII, figs. 2 and 4) found in the undisturbed parts of the cave, three are long and narrow and three are of triangular form. In none of the points are the edges retouched. These merely show traces of usage. In three of these, seen from the side, the bulbar face is concave. When viewed from the tip, two points are seen to be twisted. No points of Chatelperron type were encountered in this layer.

Among the 18 blades (Pl. VII, figs. 1,3,5-9 and 11) in only four one or two edges are retouched. The others are untrimmed and merely exhibit signs of utilization. In two blades the original flint surface has been retained along one edge. Seen from the side, in 12 specimens the lower surface is concave. Seven of these blades, when viewed from the end, are seen to be twisted.

End-scrapers. Seven end-scrapers were found in the undisturbed areas of the cave (Pl. VIII, figs. 4-7 and 9). In these only one end has been trimmed. The implement shown on Pl. VIII, fig. 7, represents a small end-scraper. In the majority of the end-scrapers along one or two edges there are signs showing that these sides also have been utilized. The lower surface of 5 specimens, when seen from the side, is concave. Viewed from the ends, two specimens are seen to be twisted.

Nose-scrapers. Two nose-scrapers were found in the undisturbed parts of the cave. The specimen shown on Pl. VIII, fig. 3, is a well made steep nose-scraper. One edge of this carries traces of having also been used. The second example is made on a thick flake.

Flake-scrapers. Only two examples were found in the undisturbed parts of the cave.

In the second cultural layer round scrapers and steep scrapers have not been encountered.

Borer. Only one specimen was found in the undisturbed areas of the cave (Pl. VII, fig. 10).

Burins. Three burins were found in the undisturbed parts of the cave. Of these, two (Pl. VIII, figs. 1-2) are of "bec de flûte"

and one of Bourlon's "Burin d'angle" type. [36] The working edge of two of the burins is twisted. One of the burins (Pl. VIII, fig. 1) is considerably thick.

Bone tools. The specimen shown on Pl. VIII, fig. 8, has been used as a borer. The one on Pl. IX, fig. 1, is a utilized piece of bone.

A blade and two burins found at the base of Layer I are shown on Pl. X. It is probable that these belong to the second cultural layer. Both of these burins are of "bec de flûte" type and their working edges are twisted.

In the second cultural layer no specimens of Gravette points found in the Gravettian (Upper Aurignacian) industry of western Europe and no examples of Heluan blades, seen in the Natufian culture of Palestine, [37] were encountered. Specimens of Chatelperron and Font-Yves points have not been found in this layer.

The average measurements of the points, blades, end-scrapers and burins found in Layers III and II are listed in Table 2. For the purpose of comparison the mean dimensions of Atlitian and Middle Aurignacian artifacts of Palestine [38] have been added to this table.

These figures reveal that in passing from Layer III to Layer II, the implements , with the exception of widths and thicknesses of the burins, show a tendency to diminish in size. The industry of Layer II appears to represent a more evolved form than the industry of Layer III.

The points from Layers III and II of the First Cave are, in general, shorter but wider and thicker than those of the Atlitian of Palestine. The number of the implements that can be compared with both the Middle Aurignacian and Atlitian of Palestine are unfortunately small and consist of a few end-scrapers and burins. The end-scrapers from the third and second layers are shorter and narrower than those from the Middle Aurignacian and Atlitian levels of Palestine. The average thickness of the end-scrapers of Layer

[36] See Bourlon, 1911, p. 268.

[37] For blades of Heluan type see Garrod, 1937, pp. 30 and 34.

[38] These measurments are after Garrod (1937, pp. 43 and 47). Garrod states that the measurements were taken by Barnes (see Garrod, 1937, pp. 43 and 47).

TABLE 2

		Maximum length	Maximum width	Maximum thickness
First Cave : Layer II.	Point (6 specimens)	54.65 (38.4—58.5)	28.66 (18.5—36.0)	8.78 (6.6—12.0)
	Blade (18 specimens)	63.90 (45.5—93.0)	24.52 (16.4—30.7)	8.15 (5.0—14.5)
	End-scraper (7 specimens)	45.72 (39.3—53.4)	23.12 (14.0—29.0)	8.74 (5.0—13.0)
	Burin (3 specimens)	47.50 (40.0—54.5)	29.13 (24.0—37.4)	13.00 (10.-5—17.5)
First Cave: Layer III.	Point (14 specimens)	59.53 (49.0—82.2)	28.86 (22.0—41.0)	9.74 (5.3—16.3)
	Blade (Length 13, width and thickness 14 specimens).	71.83 (57.5—102.0)	25.66 (20.0—33.6)	9.52 (4.2—13.4)
	End-scraper (3 specimens)	47.16 (41.0—58.0)	27.80 (24.7—32.7)	10.13 (9.0—11..4)
	Burin (3 specimens)	52.53 (43.6—65.0)	27.96 (21.0—34.5)	10.36 (6.7—13.2)
Mugharet el-wad: Atlitian culture (Layer C). Garrod, 1937.	Point	64.2	20.8	6.9
	End-scraper	49.0	34.5	10.2
	Burin	49.5	28.7	15.7
Mugharet el-wad: Middle Aurignacian (Layer D). Garrod 1937.	End-scraper	54.1	32.7	12.7
	Burin	56.0	29.0	12.80

III is lower than that of the Middle Aurignacian of Palestine and approaches that of the Atlitian. On the other hand, the end-scrapers from Layer II are thinner than those from the Middle Aurignacian and Atlitian levels of Palestine. The average length of the burins from Layer III is intermediate between those of the Middle Aurig-

nacian and Atlitian levels in Palestine. Their width comes close to those of the Middle Aurignacian and Atlitian in Palestine. The burins of Layer III are thinner than those from Palestine. The burins of Layer II are shorter than those from the Middle Aurignacian and Atlitian of Palestine. The width of the burins in this layer comes close to those from Palestine. Their mean thickness is near to those of the Middle Aurignacian of Palestine, but less than those of the Atlitian.

The industries of Layers III and II of the First Cave are distinguished from the Lower Aurignacian industry of Palestine by the lack of Emireh points, the scarcity of Chatelperron points and by the steepness of some of the nose-scrapers. Also the sparseness of the Chatelperron points and steep scrapers and the absence of polyhedric burins [39] distinguish these industries of Samandağ from the Atlitian culture of Palestine. On the other hand, the well made round scraper, the twisted working edges of some burins, the presence of steep nose scrapers, [40] and the scarcity of Chatelperron points bring the industries of Layers III and II of the First Cave, despite some differences in the measurements of burins and end-scrapers, closer to the Middle Aurignacian industry of Palestine . That an important portion of the points and blades found in Layers III and II are unretouched, at the same time recalls the Middle Aurignacian of Western Europe.[41] Leakey calls the Middle Aurignacian of Western Europe simply Aurignacian.[42]

The sterile rows of rocks found between the fourth and third layers in the First Cave show the existence of a relatively short interval of time between the Upper Levalloiso-Mousterian culture and the Middle Aurignacian, or Aurignacian. Kökten also reports that in the cave of Karain, in Antalya, there exists a sterile layer of

[39] For polyhedric burins see Burkitt, 1955, p. 66; Solecki, 1955, pp. 415-416. For the burins found in the Atlitian culture of Palestine see Garrod, 1937, pp. 42—44.

[40] Garrod reports that of the 223 nose-scrapers found in Layer D_1 of Mugharet el-Wad, belonging to the Middle Aurignacian, 133 are steep (see Garrod, 1937, p. 45).

[41] See Leakey, 1953, p. 118.

[42] See ibid., p. 118.

travertine between Layer II, representing the Aurignacian, and Layer III, the upper part of which includes Mousterian II. [43]

Zeuner attributes the lower part of the Middle Aurignacian of Mugharet el-Wad in Palestine (Layer E) to the latter part of the interstadial between Würm I and II and the upper part of the Middle Aurignacian (Layer D) and the Atlitian culture (Layer C) to Würm II. [44] As the industries found in Layers III and II in the First Cave approach the Middle Aurignacian of Palestine, and as Samandağ is merely 370 kilometers north of Mount Carmel in Palestine, it is probable that the Aurignacian culture of Samandağ is, at least partly, contemporary with the Middle Aurignacian of Palestine. However, for a more definite correlation, it is necessary to wait for the completion of the study Şenyürek is making on the fauna of the First Cave.

THE PALAEOLITHIC ARTIFACTS COLLECTED ON THE SURFACE IN THE HATAY PROVINCE
UPPER ACHEULEAN (MICOQUIAN) CULTURE

Altınözü. Enver Bostancı, during the course of researches in 1954, found a hand-axe on the surface of a terrace at a place southeast of the District (Kaza) Center of Altınözü in the Province of the Hatay. During the course of a visit we made together to Altınözü in September, 1956, we collected a hand-axe and three flint flakes in a field, which is slightly south-east of the District Center and between the location of the first find and the town. The hand-axe found in 1954 possesses a patina of brick color. The color of the patina of the implements found in 1956 is light brown for some and gray for the others. All the tools collected in Altınözü are made of flint.

The hand-axe found in 1954 is shown on Pl. XII, figs. 1-3. In this hand-axe, which is lanceolate in form, the tip is broken and its upper surface is more swollen, that is, more convex than its lower surface. The majority of the flake scars on the worked upper surface of this hand-axe are shallow. This specimen approaches the small hand-axes, with a thin and pointed tip, which are the most

[43] See Kökten, 1955, pp. 275, 281, and 289.
[44] See Zeuner, 1952, figs. 73 and 80.

characteristic forms of the Micoquian stage of Europe, [45] and which are also found in the Near East in Palestine [46] and at Jabrud in Syria.[47]

The trimmed upper surface of the hand-axe shown on Pl. XII, figs. 4-6, is also more convex than its lower surface. The edges of this implement are slightly convex. Most of the flake scars on this hand-axe, in which the butt-end is also trimmed, are shallow and a part of the cortex has been retained at the butt-end of the lower surface. The point of this implement, which appears to have been originally pear-shaped, has been broken and at this place an edge has come into being. It is probable that this edge may have been used for awhile.

The implement shown on Pl. XII, fig. 7, is a scraper approaching the triangular form. The prepared striking platform of this scraper forms approximately a right angle with the bulbar surface. This scraper, which is of medium thickness, has been made with the Levallois technique. The tool shown on Pl. XII, fig. 8, is a thick racloir. The striking platform of this racloir, which posseses one large facet, forms an angle of about 118 degrees with the lower surface. This specimen, in which the bulb of percussion is small, is of the "end-bulb" type. The implement shown on Pl. XII, fig. 9, is again a scraper of the "end-bulb" type, in which two edges have been trimmed. The single facetted striking platform of this scraper forms an angle of approximately 107 degrees with the lower surface. It is understood that the bulb of percussion, which has subsequently been broken, was not prominent. Only slightly more than half of the upper surface of this implement has been trimmed.

Altındere (Avratlar Deresi). During the course of exploration which we made in June, 1957, we searched the place where Nuretin Can had, in 1943, found two hand-axes and one scraper. [49] During the course of this investigation we learned that this stream, on the western edge of Antioch, which passed into the literature under

[45] See Leakey, 1953, p. 95 and fig. 18; Grahmann, 1955, p. 226.

[46] See Garrod, 1937, Pl. XXXVIII, fig. 2.

[47] See Rust, 1950, Pl. 28.

[48] For the straight-ended hand-axes found in Tabūn cave see Garrod, 1937, p. 79 and Pl. XXXVIII, fig. 2.

[49] See Kansu 1945, pp. 293 and 295.

the name of Altındere, [50] is also called Avratlar Deresi in Antioch. This stream, which flows into the Asi Nehir (Orontes) dries up in the summer. During a search of one hour on a terrace stretching along the western side of this stream we collected three hand-axes and three flint flakes. The color of the patina of the implements collected in this area, all of which are made of flint, varies between brown and yellow.

The tip portion of the hand-axe shown on Pl. XIII, figs. 1-3, has been broken recently. While the two sides and the butt-end of the tool have been trimmed, in the upper and lower surfaces some parts of the cortex have been retained. The edges of this implement, which approaches the cordiform shape, are slightly convex. The part of this specimen slightly below its middle is thick. The flake scars are shallow. The implement shown on Pl. XIII, figs. 4-6, is a pointed hand-axe approaching the cordiform shape.[51] Also in this hand-axe, with convex edges, the flake scars are shallow. While the upper and lower surfaces and the butt-end of this implement are trimmed, in all three parts patches of the cortex have been retained. As in the preceding specimen, in this hand-axe also, the upper surface is more convex than the lower surface. The tool shown on Pl. XIV, figs. 1-3, is a small hand-axe made of heterogeneous flint. While the upper and lower surfaces of this implement, which approaches the lanceolate form, are worked, on both surfaces pieces of the cortex have been left. The flake scars on this hand-axe, of which the butt-end also is trimmed, are shallow. The upper and lower surfaces of this specimen are convex to the same extent. This hand-axe makes a slight approach to the Micoquian type.

The small hand-axe found by Nurettin Can in this area and studied and depicted by Kansu, [52] as may be seen from the published drawing and from its original exhibited in the Division of Anthropology and Ethnology of the Univesity of Ankara, shows an oval form.

[50] See ibid., pp. 293 and 295.

[51] The form of this hand-axe approaches those of two larger hand-axes published by Breuil and Koslowski (see Breuil and Koslowski, 1931, fig. 17 and fig. 18, i).

[52] See Kansu, 1945, pp. 293, 296 and fig 1.

The three flakes we collected in this area are shown on Pl. XIV, figs. 4-6. In all three flakes the bulb of percussion is prominent. In three flakes the angle between the striking platform and the bulbar surface varies between 90 and 120 degrees . In the flakes shown in figs. 4 and 6, only one facet is seen on the striking platform. The striking platform of the concave-scraper of Levallois type shown in fig. 5 makes an angle of about 90 degrees with the lower surface. This scraper is of the "oblique-bulb" type.

The hand-axes collected on the surface at Altınözü and Altındere (Avratlar Deresi) appear to correspond to the final stage of the Upper Acheulean, that Garrod in Palestine calls Upper Acheulean (Micoquian). [53] Kansu has also attached the hand-axes found at Altındere to this stage. [54] The Upper Acheulean stage seen in Layer F of the Tabūn cave of Palestine, [55] and the Upper Acheulean (Micoquian) stage found in Layer E of this cave, [56] and especially the latter, as has also been stated by Leakey, draw attention by the abundance of the flake tools. [57] In view of the abundance of flake tools in the Upper Acheulean (Micoquian) stage of Palestine, we consider it probable that the flake tools found on the surface at Altınözü and Altındere may belong to the same culture.[58]

CONCLUSION

The researches made in the Hatay up to date have established the presence of the final stage of Upper Acheulean and the Upper Levalloiso-Mousterian and Aurignacian (Middle Aurignacian) cultures in this region.

[53] See Garrod, 1937, p. 78

[54] See Kansu, 1945, pp. 293 and 295.

[55] See Garrod, 1937, p. 87.

[56] See *ibid.*, p. 78.

[57] See Leakey, 1953, pp. 106 and 108 . In Layers E and D of Mugharet Umm Qatafa in Palestine also flake tools have been found together with the Upper Acheulean hand-axes (see Neuville, 1931, pp. 24-44 and Sauter, 1948, p. 139).

[58] For the flake implements of Clactonian and Levalloisian types found in Layer E of Tabūn cave see Garrod, 1937, pp. 78-80.

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EXPLANATION OF THE PLATES

Pls. I-II. Flint implements found at cultural Layer V in the First Cave. Upper Levalloiso-Mousterian.

Pls. III-IV. Flint implements found at cultural Layer IV in the First Cave. Upper Levalloiso-Mousterian.

Pls. V-VI. Flint implements found at cultural Layer III in the First Cave. Upper Palaeolithic (Aurignacian).

Pl. VII. Flint implements found at cultural Layer II in the First Cave. Upper Palaeolithic (Aurignacian).

Pl. VIII. Flint implements and a bone borer (fig. 8) found at cultural Layer II of the First Cave. Upper Palaeolithic (Aurignacian).

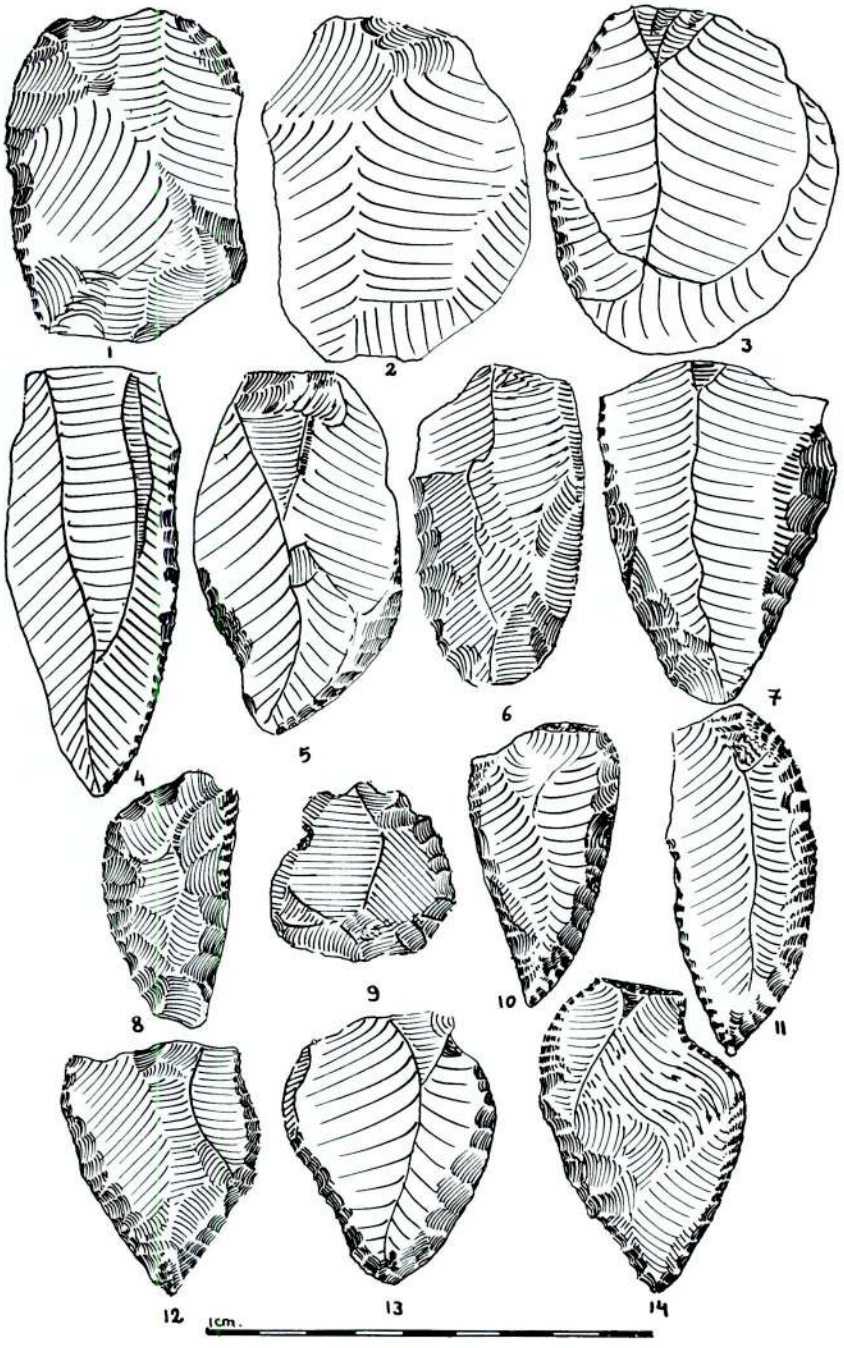
Pl. IX. Bone tools and utilized bones found at cultural Layers IV, III and II of the First Cave. Upper Levalloiso-Muosterian and Upper Palaeolithic (Aurignacian). In this plate, with the only exception of the specimen shown in figs. 3-5, each tool is shown from two sides. The implement seen in figs. 3-5 is shown from three sides.

Pl. X. Flint implements found at the base of cultural Layer I in the First Cave. Upper Palaeolithic (Aurignacian).

Pl. XI. Flint implements found in the mixed Pit II in the First Cave.

Pl. XII. Flint implements collected on the surface at Altınözü. Upper Acheulean (Micoquian).

Pls. XIII-XIV. Flint implements collected on the surface at Altındere (Avratlar Deresi). Upper Acheulean (Micoquian).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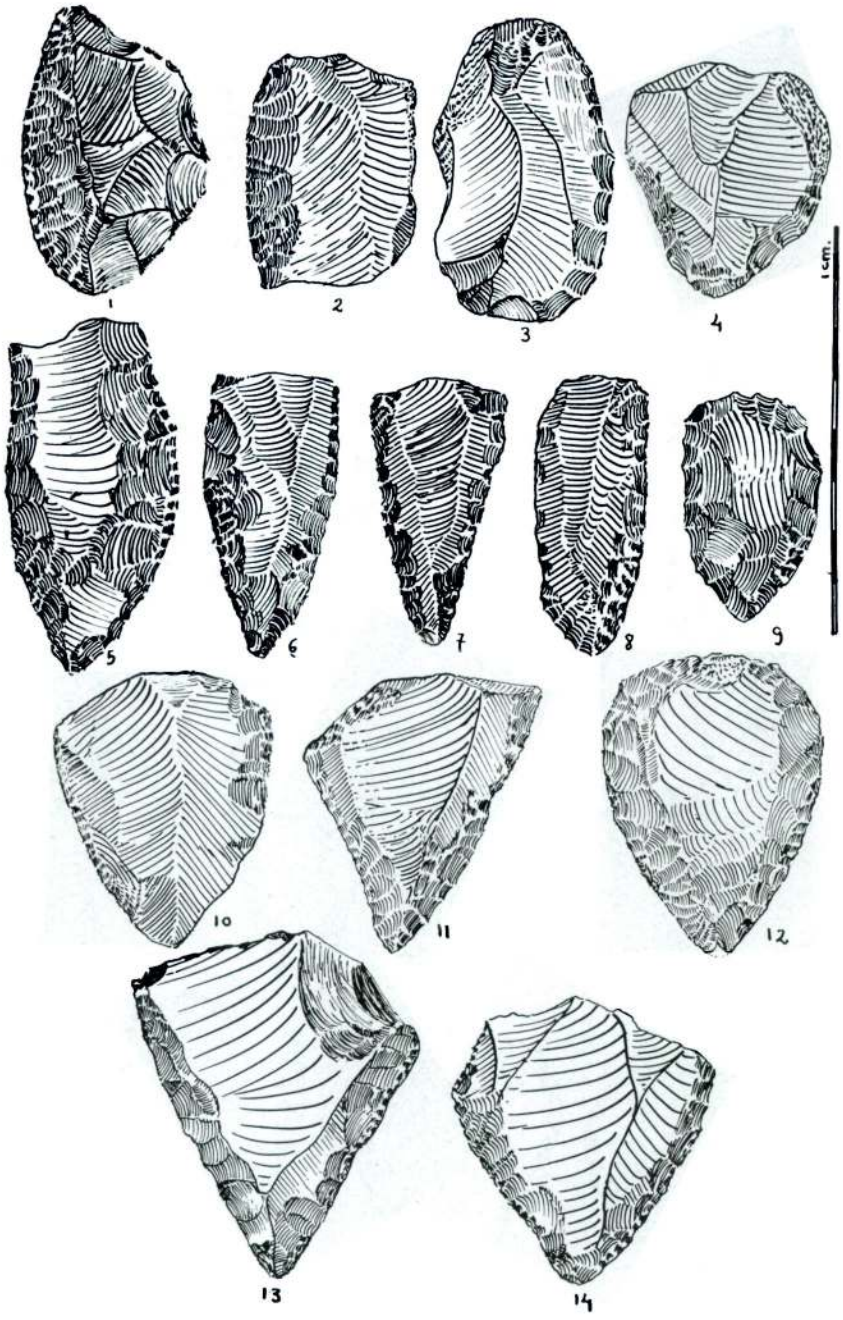
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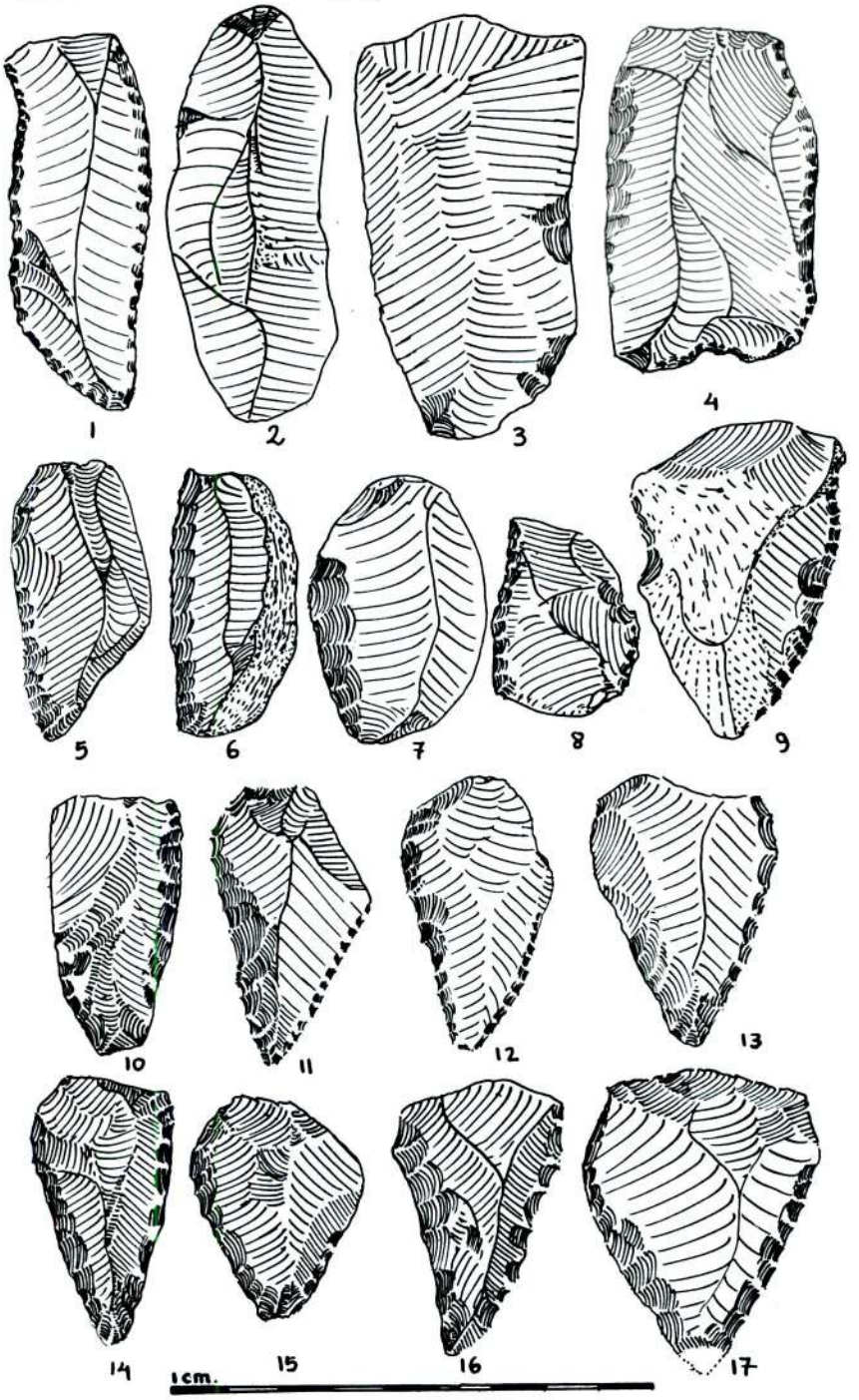
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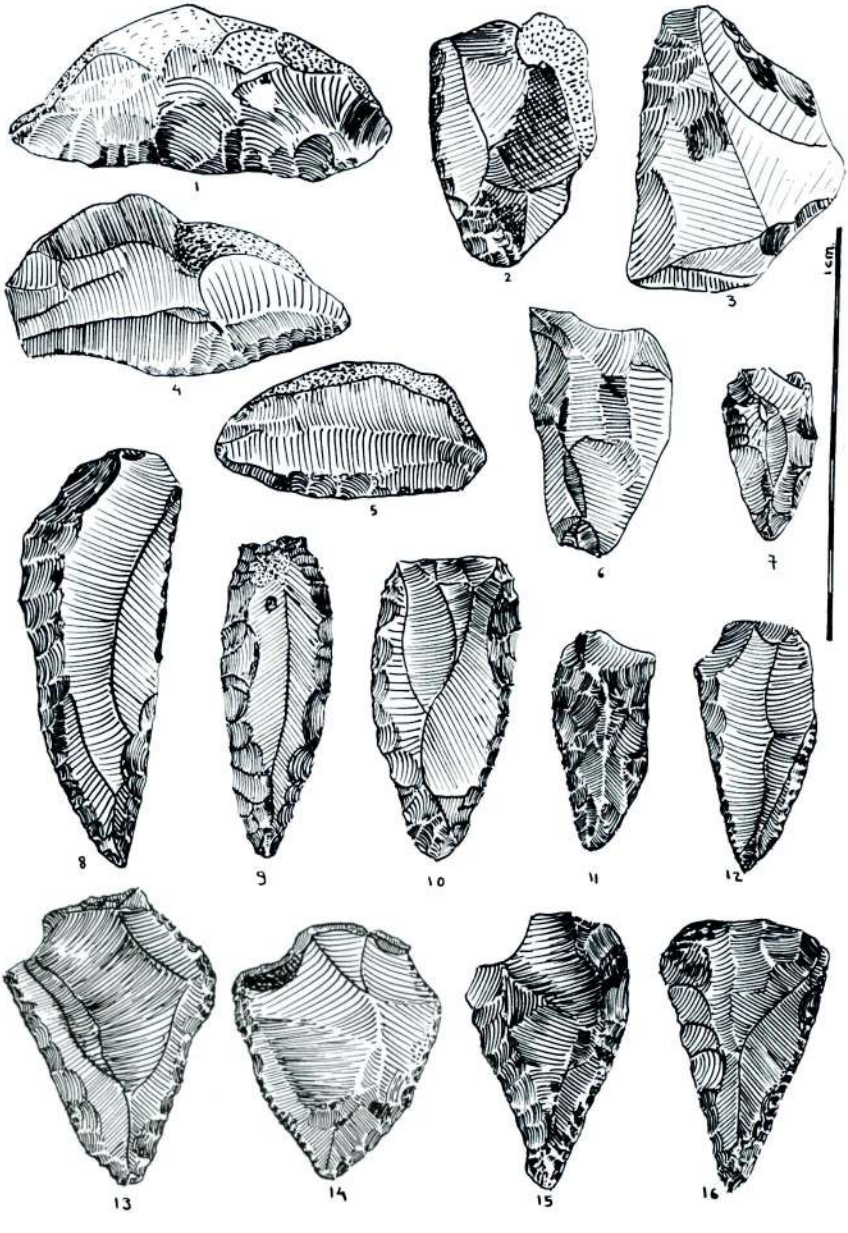
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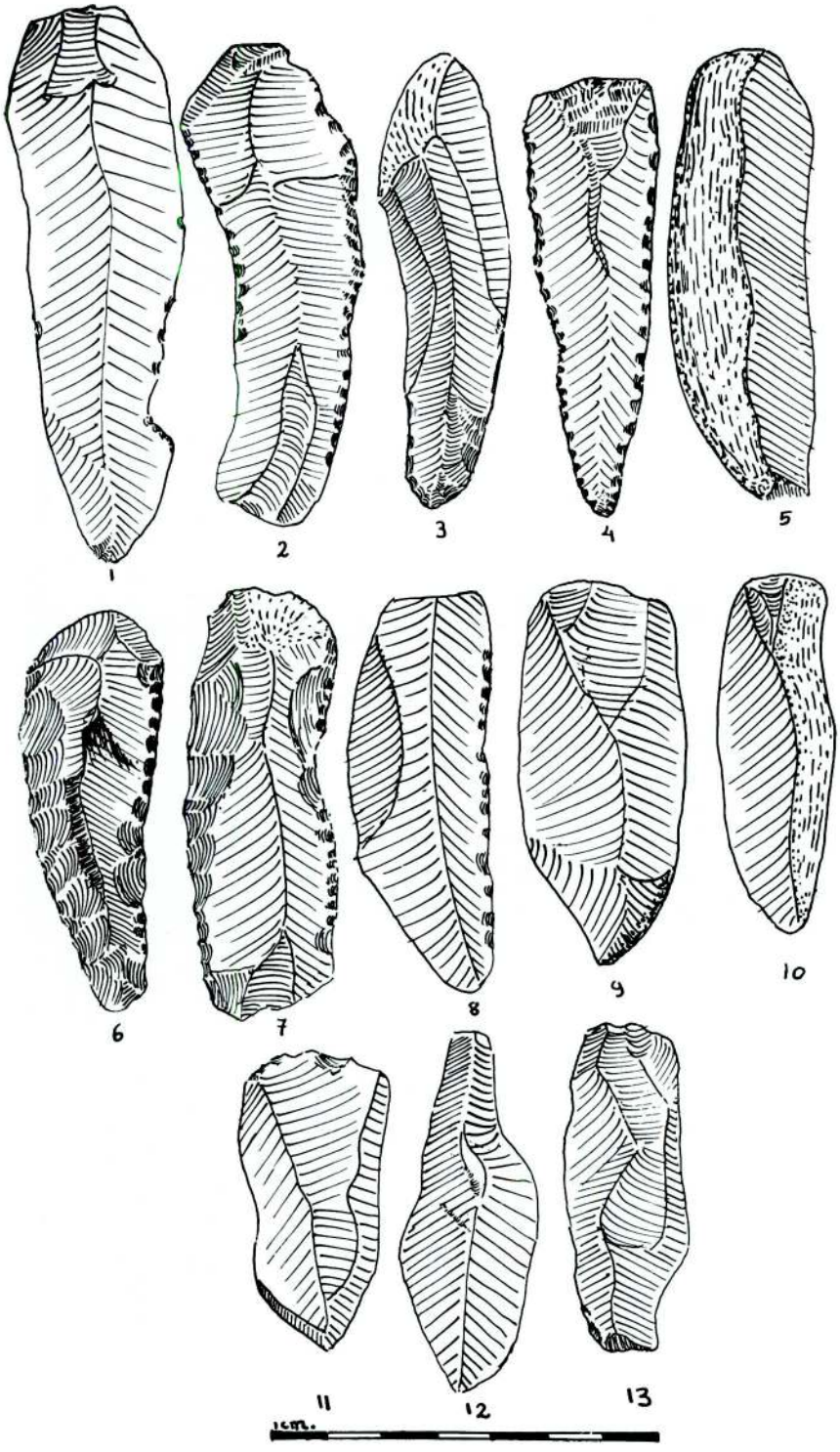
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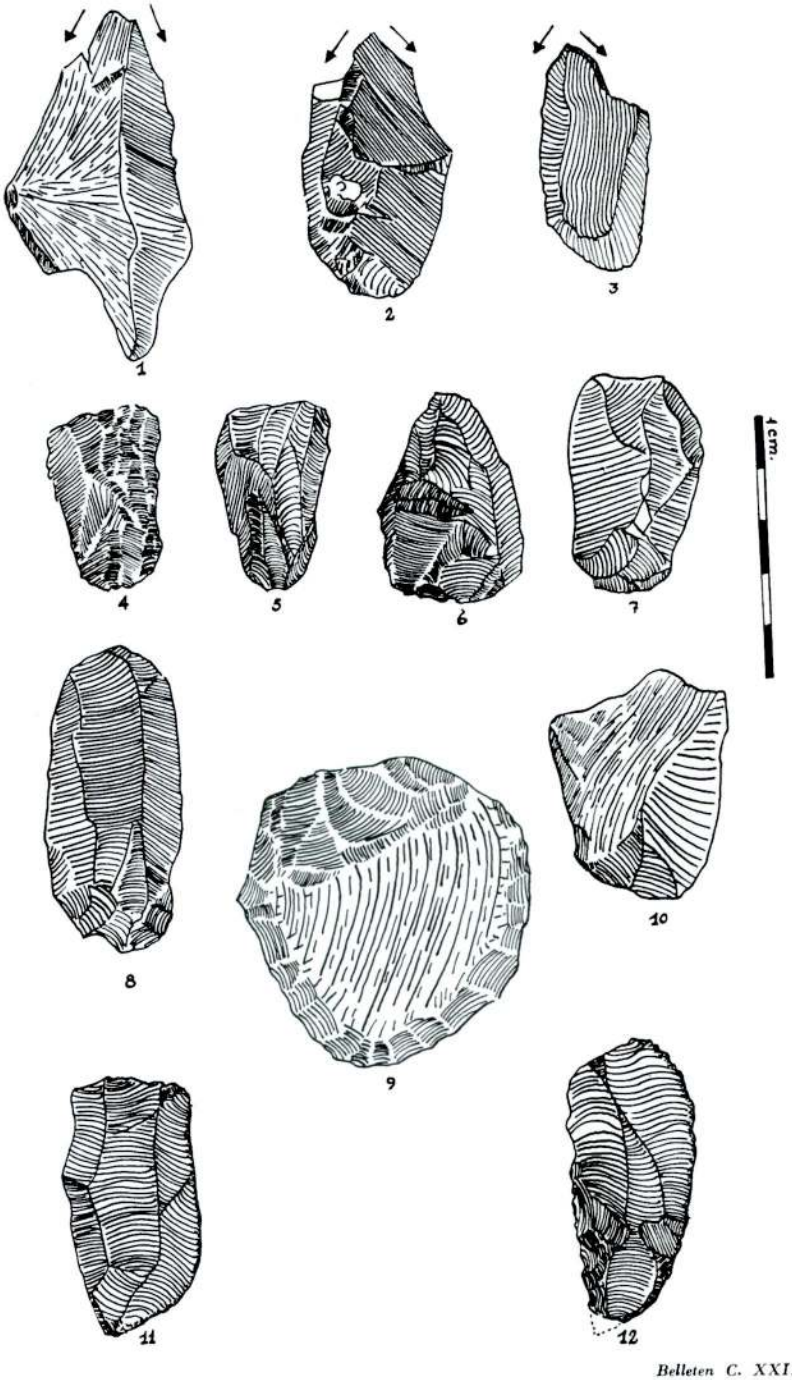
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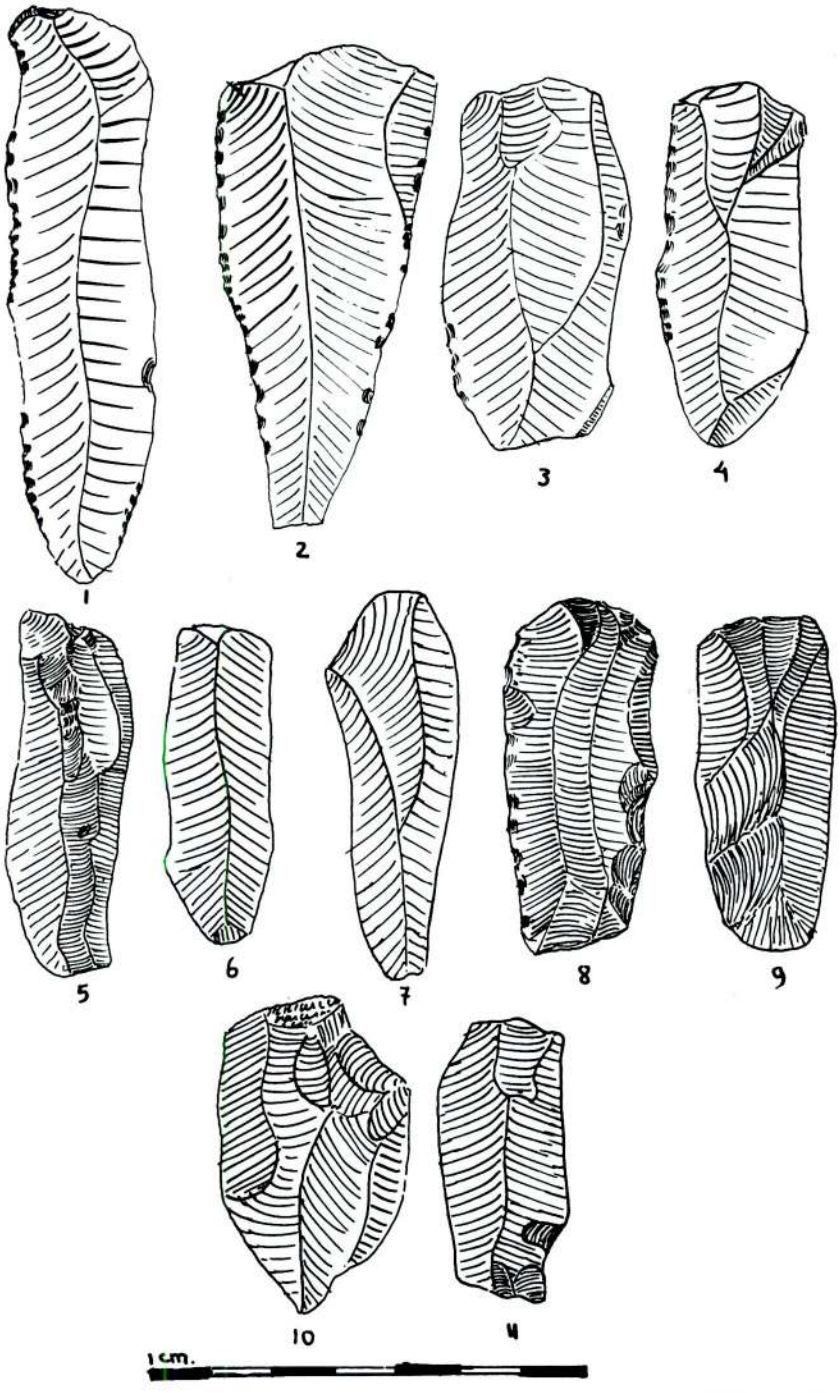
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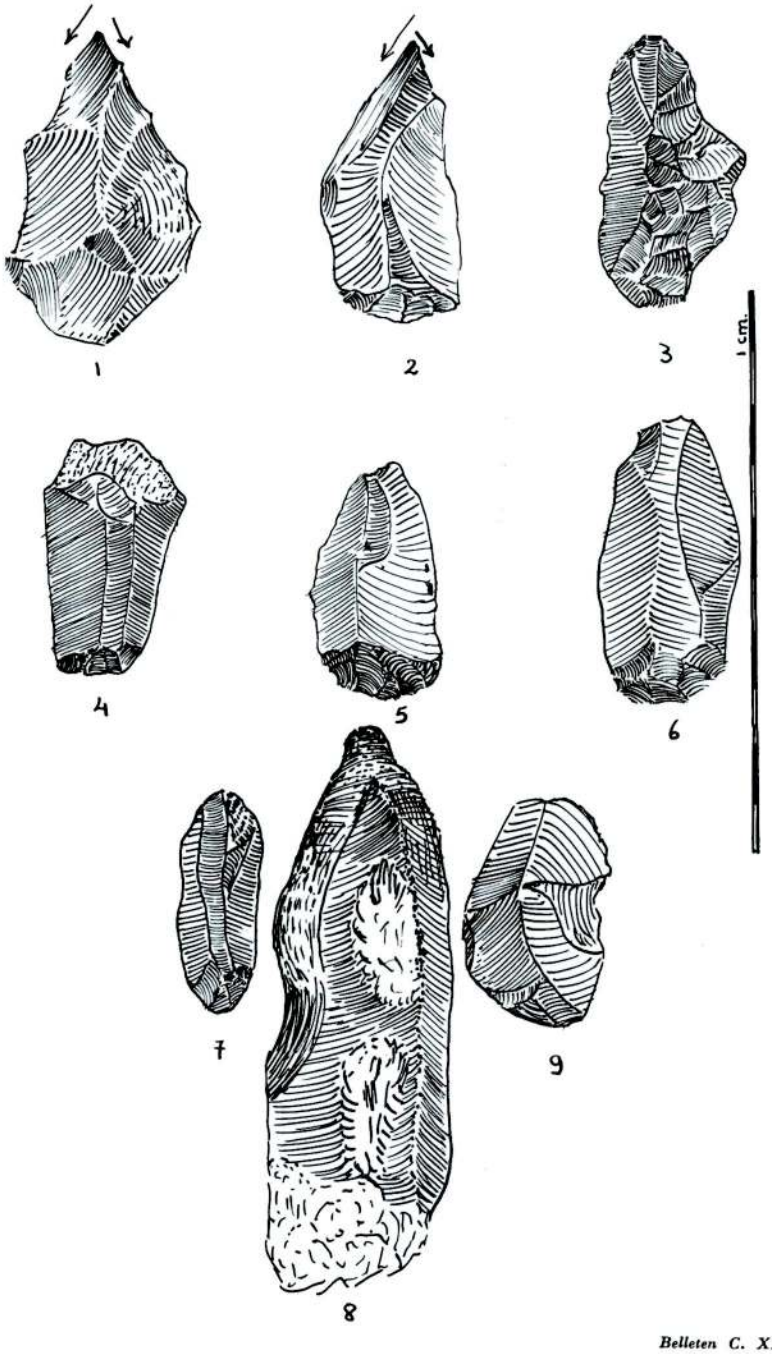
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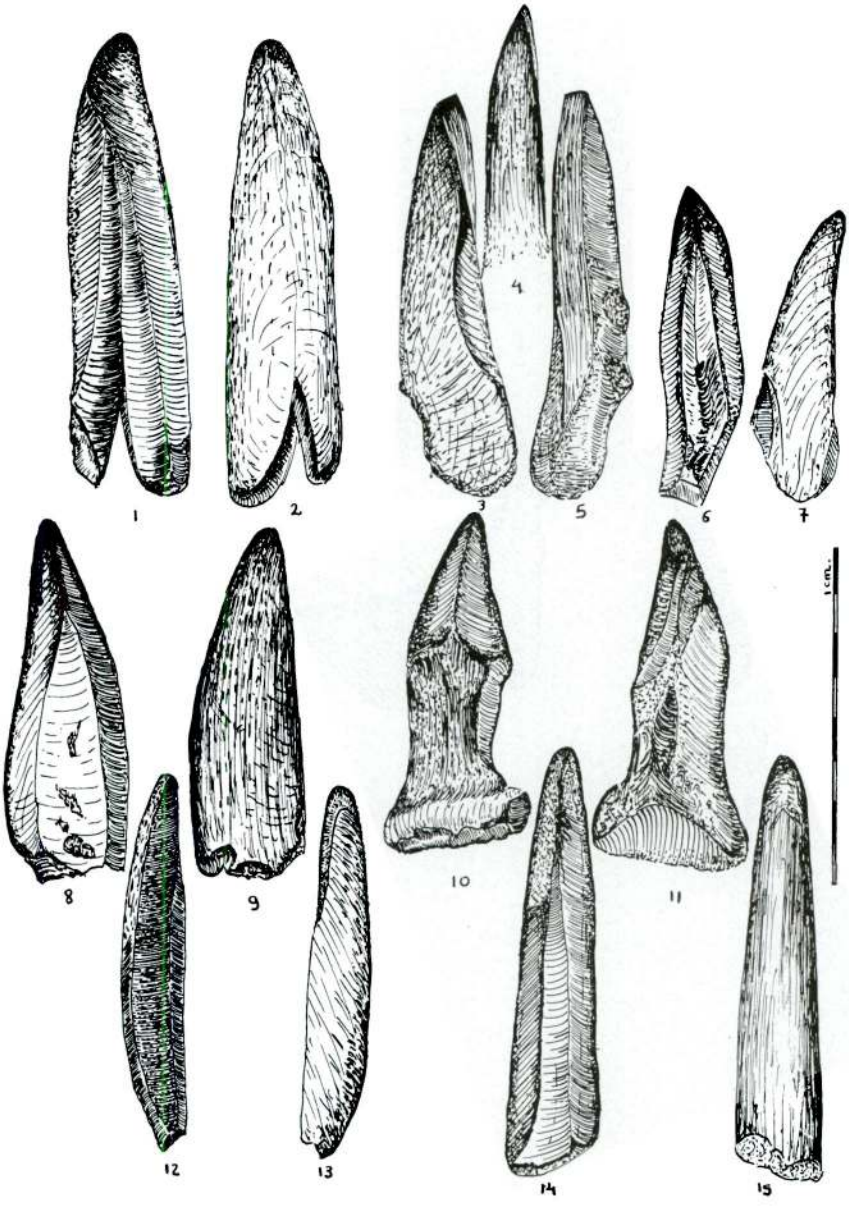
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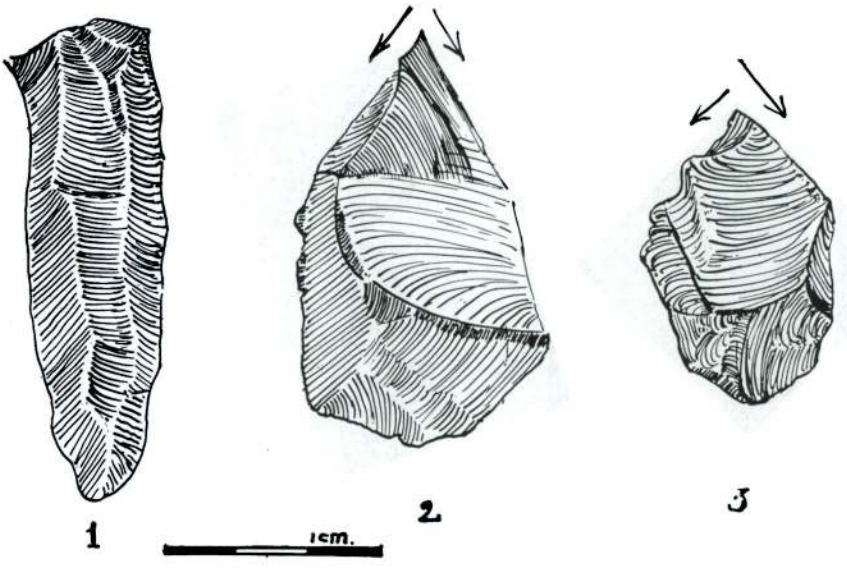
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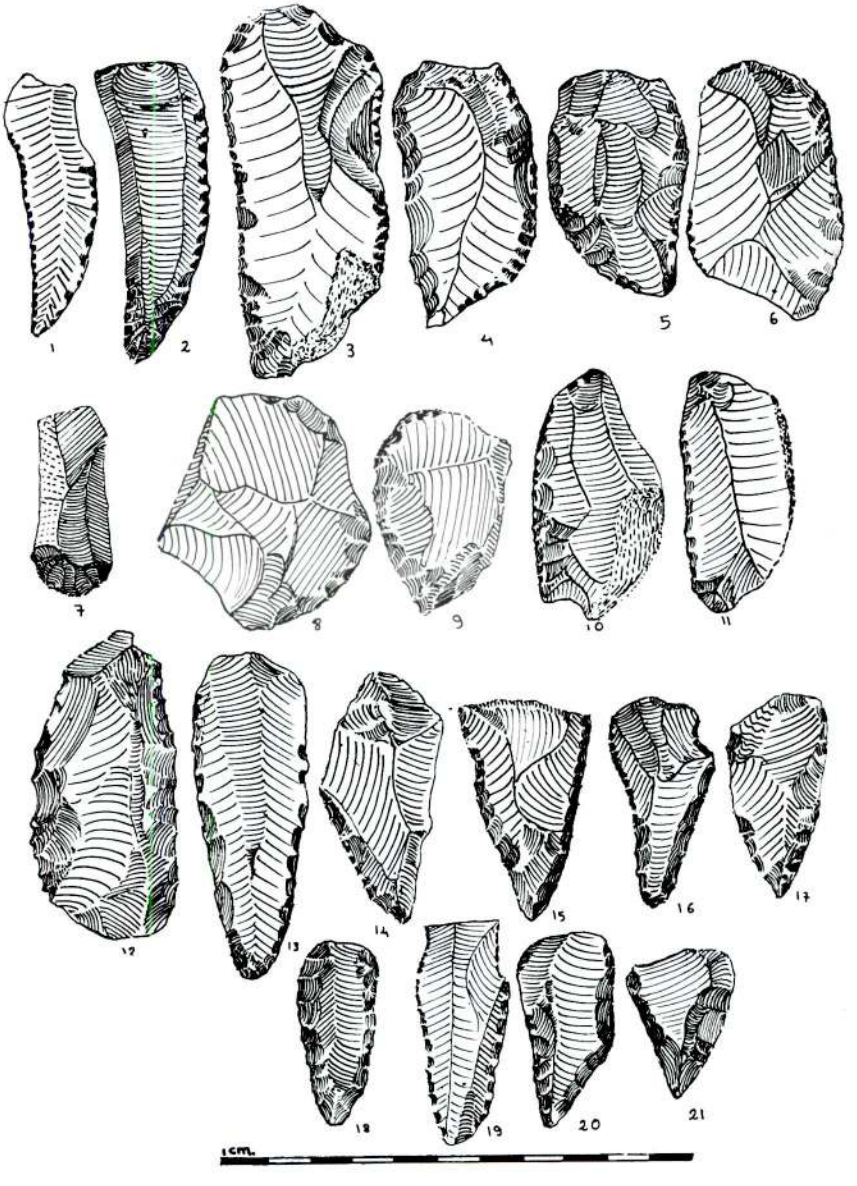
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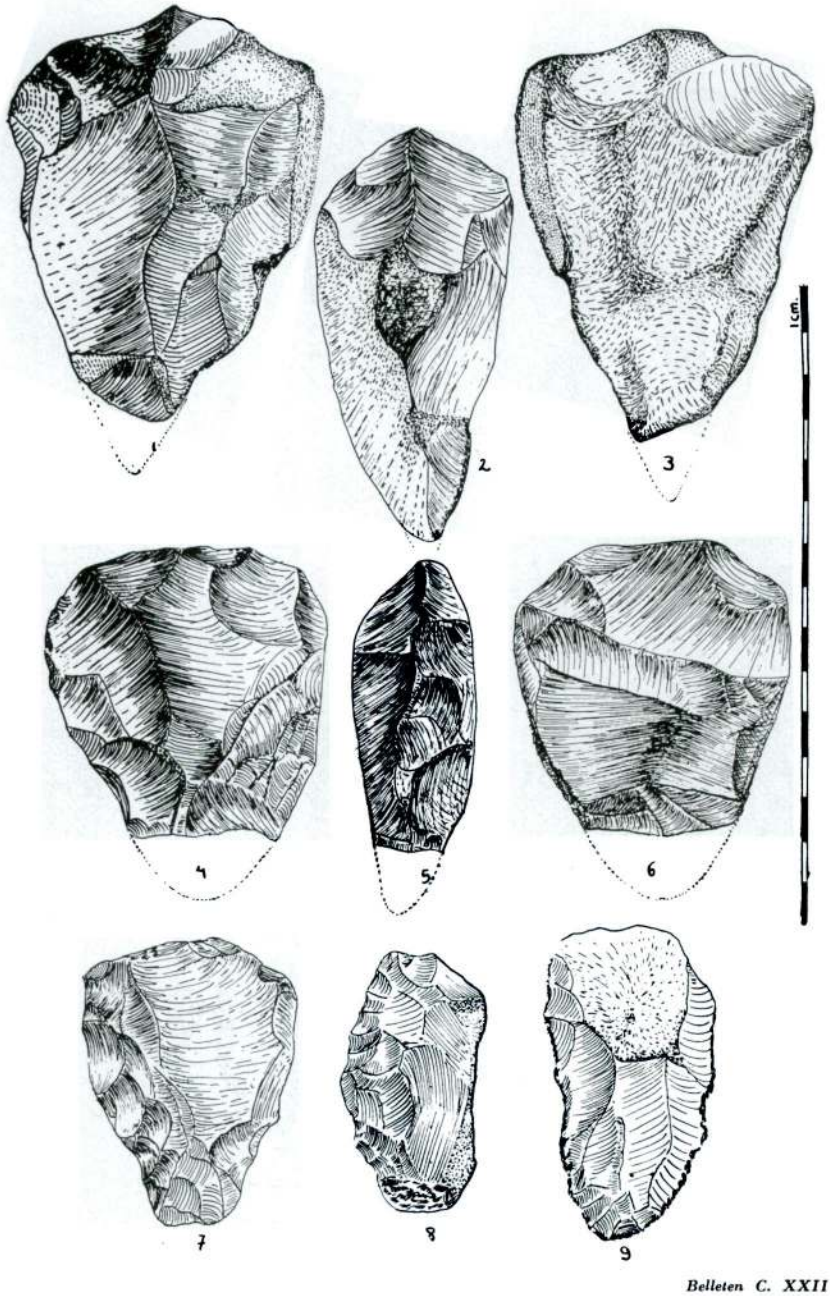
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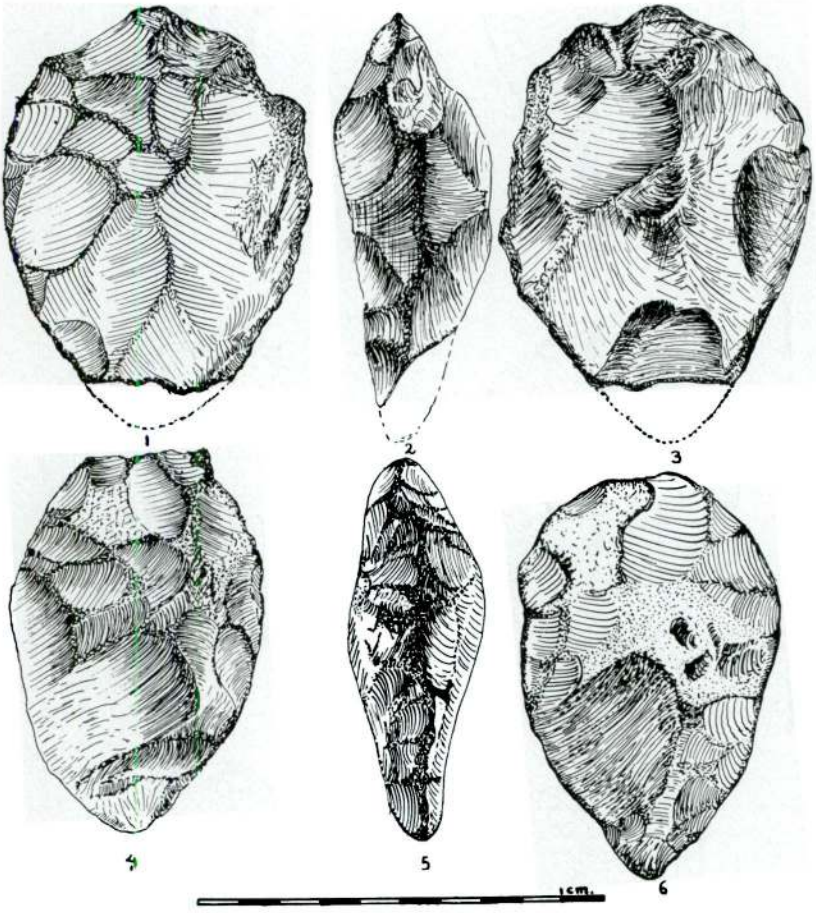
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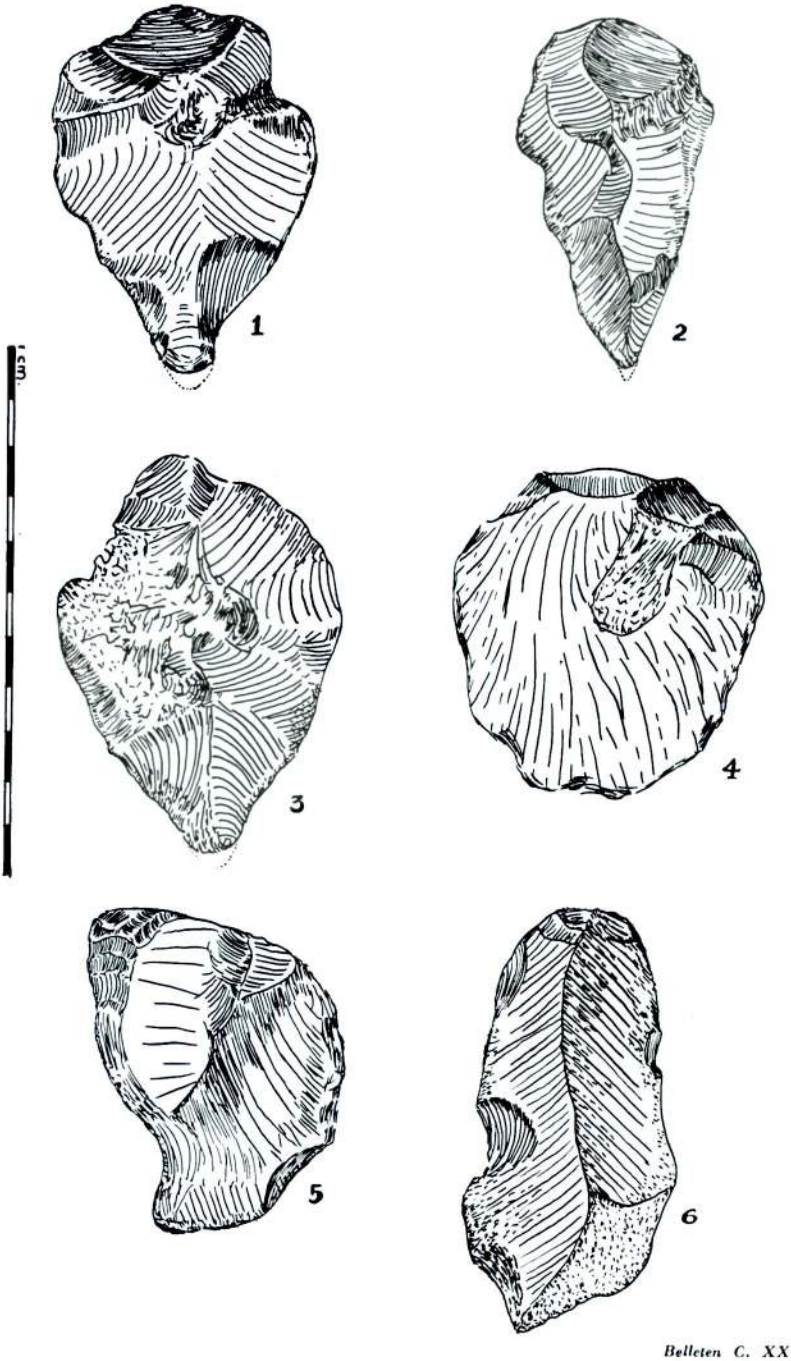
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