

CHAPTER 6

THE GRAVETTIAN COLLECTIONS FROM THE IRSNB EXCAVATIONS ALONG THE ROAD CUT AT HUCCORGNE- HERMITAGE

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INTRODUCTION

In 1976 and 1980, Dr. Paul Haesaerts of the Institut Royal des Sciences Naturelles de Belgique dug two long trenches and a *sondage* between them along the eastern face of the road cut in the area due west of the main part of the site (HU) where Tihon's and Destexhe's excavations had been done and also directly opposite Haesaerts' own section along the western face of the railroad cut. Haesaerts' two trenches along the eastern side of the road cut totalled about 20 m long and the total surface he dug came to about 40 sq.m. Also in 1980, Serge Froment, an M.A. student of Haesaerts, dug three smaller trenches (totalling some 7 sq.m) along the western face of the road cut, mainly south of the southern end of Haesaerts' southernmost trench along the eastern face of the road cut. All these trenches were identified in terms of meters south (downslope) of a property marker at the top of the eastern face of the road cut due west of the axis of Haesaerts' railroad cut trench. This marker was assigned the label "P100" for measuring purposes, with Haesaerts' east roadside trenches extending down to P122 (i.e., 22 m approximately south of the origin point). Froment's trenches were located at 117.5-118.5 m, 121-123 m and 127-131 m south of the property marker on the opposite side of the road. In both sets of IRSNB excavations the squares are referred to by the metric indicator at their northern end. If more than 1 m wide, the parallel meter squares are referred to as "A", "B" etc. from west to east (e.g., square P115 A).

All lithics--even very small chips--were piece-plotted *in situ*, but the sediments were not screened. This does not seem to have affected the representation of microdébitage in the collections--fully comparable with the UNM/ULg collections, which did result in part from fine screening. Visibility of even the smallest flints in the fine, light beige loess is excellent--and they audibly "clink" as the trowel passes over them.

Haesaerts' Gravettian horizon is generally divided into three levels: G1 at the base is a primary aeolian loess formed under cold conditions with permafrost; G2 is a colluvially redeposited loess; G3 is similar but with large limestone blocks (*éboulis*) soliflucted down from the cliff atop a frozen substratum (P.Haesaerts, personal communication, 1994). Judging from Haesaerts' section drawings, Stratum G4 seems to be a channel fill in the "downstream" area of P116-121. The main band of dense artifacts was, however, continuous from G3 into G4. The artifacts in the latter may have been redeposited from the former.

The Haesaerts trenches uncovered dense scatters of Gravettian flint artifacts together with limited numbers of faunal remains. He plotted the finds in vertical space along the length of his transect, which was usually 1-2 m wide. Many of them fell within his level G3, but they were also scattered within underlying G2 and especially G1 and (sometimes) overlying G4. Most finds were in a band that was generally 10-20 cm thick, although in some places the majority were concentrated more tightly. (The maximum vertical scatter of presumably Gravettian artifacts is c. 40 cm in P121

and 25-35 cm being more common, as in P116.) Locally there can be vertical separation between artifact scatters, suggesting an initial occupation in G1 followed by a gap in G2 and then a much denser accumulation of finds in G3/G4 (the latter possibly representing a palimpsest of residues from several visits to the site). In most areas all occupation traces are merged into one more or less continuous vertical distribution. Haesaerts also plotted the finds on a horizontal plane in some sectors of his trenches. Particularly rich was the dense cluster of artifacts in the sector between P115-118. This concentration of objects was associated with a group of limestone blocks reminiscent of the feature in our railroad-side excavation block. Lack of preferred orientation among the elongated finds around this group of rocks (as shown in the detailed plan made available to Straus by Haesaerts) suggests that the distribution may represent an intact activity area. In other areas, however, Haesaerts suspects the role of running water in slight disturbance of the Gravettian finds.

Because the distribution of finds in vertical space cannot be separated in most parts of Haesaerts' trenches and because those trenches are nearly continuous on the horizontal north-south axis, I have analytically lumped all the finds together as one collection, fully cognizant of the fact that they almost certainly represent multiple occupations. Indeed among the 17 sets of lithic artifact refits that Straus and Martinez were able to obtain in the Haesaerts collection, 7 cross stratum boundaries (i.e., G2/3-4, G2-4, G3-4, G1-3, H1/G3-G2). Thus there is no choice but to treat "G" as one analytical unit.

Froment's finds from his three much smaller trenches along the west face of the road cut were also lumped for analytical purposes. Most of them are from his level H.A., which is a reddish brown silt equivalent to Haesaerts' level G, 10 m away on the east side of the road (=our Stratum 3). There are some flints in Froment's level H.B, which is a fine, powdery, yellowish silt with stones at its base. Froment believes that his H.B. is equivalent to Haesaerts' H (our Stratum 3 with some Gravettian intrusive artifacts?). There is evidence of flow at the interface between H.A. and H.B. (Froment 1980:34). Finally there are also a few, clearly derived flints in Froment's level H.C., which a complex of coarse grey-brown sands, powdery yellow silt and lenses of sandy silt filling a small channel that cuts through the underlying H.B. and H.A. Froment's stratigraphic sections graphically illustrate major convolutions between the top of H.A. and the base of H.C. There was clearly higher energy flow in the downstream location of Froment's trenches than in Haesaerts' ones only a few meters distant. There are, however, no obviously non-Gravettian intrusive artifacts in Froment's collections, so they can be studied as a Gravettian ensemble, although they clearly represent an hydraulically disturbed palimpsest.

THE IRSNB GRAVETTIAN COLLECTIONS

With the authorization of Haesaerts and Dr. Daniel Cahen (Director of the IRSNB), Straus classified the collections from the 1976 and 1980 geological excavations along the road cut. This was done (in 1994) following the same methods and typologies used in the classification of the 1991-93 finds from the UNM-ULg excavations. Of course the problem of inter-classifier variation was not present, since the IRSNB classification and measurement were done by Straus alone.

The combined collection from Haesaerts' trenches along the eastern side of the road cut includes 5681 items of knapping debris and 138 retouched tools, while the combined collection from Froment's pits along the western side have only 225 pieces of debris and 7 tools (Tables 1 & 2; Figures 1a-d). Microdébitage (trimming flakes and shatter, all <1cm in length) totals just over half the east-side debris assemblage (50.4%). Exactly 19% of the collection is made up of flakes versus

TABLE 1

HUCCORGNE: LITHIC DEBRIS
 IRSNB (HAESAERTS & FROMENT) EXCAVATIONS, STRATUM 4 SENSU LATO ("G")

Debitage type	East Road		West Road	
	n	%	n	%
Non cortical trimming flake	2361	41.6	17	7.6
Cortical trimming flake	253	4.5		
Non cortical shatter	161	2.8	6	2.7
Cortical shatter	83	1.5		
Plain flake	582	10.2	54	24
Primary decortication flake	93	1.6	7	3.1
Secondary decortication flake	404	7.1	44	19.6
Plain whole/proximal blade	307	5.4	2	5.3
Plain distal/mesial blade	426	7.5	26	11.6
Whole/proximal 1DC blade	2	0.1		
Whole/proximal 2DC blade	72	1.3		
Mesial/distal decortication blade	135	2.4	6	2.7
Unidirectional crested blade	44	0.8		
Bidirectional crested blade	16	0.3		
Plain whole/proximal bladelet	389	6.8	2	0.9
Plain mesial/distal bladelet	22	0.4		
Whole/proximal cortical bladelet	17	0.3		
Mesial/proximal cortical bladelet	1	0.1		
Burin spall	45	0.8	2	0.9
Flake core	1	0.1	3	1.3
Prismatic blade core	2	0.1		
Pyramidal blade core	2	0.1		
Pyramidal bladelet core	1	0.1		
Mixed core	2	0.1		
Non-cortical chunk	102	1.8	20	8.9
Cortical chunk	113	2.0	25	11.1
Platform renewal flake	45	0.8	1	0.4
TOTAL	5681	100.0	225	100.0

1DC = Primary Decortication
 2DC = Secondary Decortication

TABLE 2
 HUCCORGNE: GRAVETTIAN TOOLS
 IRSNB (HAESAERTS & FROMENT) EXCAVATIONS, STRATUM 4
 SENSU LATO ("G")

	East Road		West Road
	n	%	n
1 simple endscraper	1	0.7	2
8 endscraper on flake	3	2.2	-
23 perforator	2	1.4	-
26 microperforator	1	0.7	-
30 angle burin on break	20	14.5	-
31 multiple dihedral burin	3	2.2	2
35 burin on oblique truncation	4	2.9	-
36 burin on concave truncation	1	0.7	-
38 transversal burin on lateral truncation	2	1.4	-
41 multiple mixed burin	2	1.4	-
56 shouldered Gravettian point	1	0.7	-
57 shouldered piece	1	0.7	-
58 backed blade	24	17.4	-
59 partially backed blade	2	1.4	-
60 straight truncated piece	2	1.4	-
61 oblique truncated piece	2	1.4	-
62 concave truncated piece	2	1.4	1
63 convex truncated piece	3	2.2	-
65 continuously retouched piece- 1 edge	22	15.9	1
66 continuously retouched piece- 2 edges	2	1.4	-
74 notch	11	8.0	-
75 denticulate	11	8.0	-
77 sidescraper	1	0.7	1
85 backed bladelet	9	6.5	-
88 denticulated bladelet	4	2.9	-
89 notched bladelet	1	0.7	-
90 Dufour bladelet	1	0.7	-
Total	138	100.0	7

18% blades and 7.6% bladelets. Cores (mainly blade/bladelet types) are not very common (0.5%), but chunks, which include many exhausted core remnants, make up 3.8% of the total. There are 45 platform renewal flakes among the flakes (0.8%) and 60 crested blades among the blades (1.1%). Splintered pieces (bipolar cores) are absent. Burin spalls total 45 (0.8%). Fully a fifth (20.7%) of the debris have some cortex, although primary decortication flakes and blades are relatively few. This is an assemblage that shows an emphasis on laminar blank production. Presumably many of the best blades were exported from here to other locales.

The Froment collection from the west side of the road is dramatically different even though the excavation methods used were the same as Haesaerts. Microdébitage makes up only 10.3% and bladelets make up only 0.9% of the Froment collection, no doubt because the smallest items had been washed away by running water in this channelled downstream area. On the other hand, chunks, which are heavy items, total 20% of the collection. (But there are only 3 cores: 1.3%.) Flakes make up 37.4% and blades 19.6%. There are only 2 burin spalls (0.9%). A high 63.2% of the debris has cortex. There is only 1 platform renewal flake (0.4%) and no crested blades.

The debris from the combined Haesaerts Gravettian collection is overwhelmingly dominated by the fine-grain, blue-grey Hesbaye flint (91.1% by count, 99.1% by weight). This is followed by yellowish patinated Hesbaye flint (4.7% by count, 0.4% by weight). The figures are similar for the Froment collection, but with slightly more of the patinated Hesbaye flint (15.0% by count, 12.9% by weight) vis à vis the unpatinated fine-grain blue-grey Hesbaye flint (88.9% by count, 85.3% by weight). There are traces of non-local raw materials (e.g., Brussels sandstone, psammite, quartzite, fine-grain Tertiary flint), but no more than 2-3 items each. Humans clearly knew that they did not need to come to Huccorgne with (or bring to it) stone artifacts from elsewhere, since they went to this site to acquire and work the abundant, excellent-quality flint locally available there.

The Froment collection has 2 endscrapers, 2 burins, a truncation, a continuously retouched piece and a sidescraper--all types present among the larger collections from HH. The Haesaerts collection from the eastern side of the road cut has only 4 endscrapers (2.9%) and 3 perforators (2.1%) versus 32 burins (23.2%)--mainly simple burins on break. There are a couple of projectile point fragments (shouldered points), plus 35 backed blades and bladelets (25.3%). There are 9 truncated pieces (6.4%), 24 continuously retouched pieces (17.3%). Notches and denticulates (22) make up 16.0%. There is 1 sidescraper. Various kinds of retouched bladelets (6) make up 4.3%. The relative abundance of burins, backed and truncated pieces make this a fairly "typical" Gravettian assemblage. The scarcity of endscrapers points to the relative unimportance of hide-working at this locale, since numerous microwear studies almost always show this to be the function of endscrapers. On the other hand, the relative abundance of so-called "Mousterian" tool types is rather striking.

In addition to the artifacts from Stratum G, Haesaerts found 7 items of debris from overlying level H (probably equivalent to our Stratum 3) and 42 in underlying level F (=our 5). The latter assemblage is heavily dominated by flakes (versus only 5 blades). While the H artifacts might be derived from the Gravettian horizon, the F collection is probably Mousterian, as in the other excavations at HH. There are, however, no tools from these pre-Gravettian levels in the IRSNB excavations along the road cut. In general, the site seems to have been only very ephemerally visited during pre-Gravettian times, with no evidence of the intensity of flint collection and knapping that occurred in the period immediately before the Last Glacial Maximum. There is simply no indication in the Middle Paleolithic that HH was being systematically "mined" as it was to be in the mid-Upper Paleolithic--presumably for export of tool blanks to other sites such as the Ardennes caves.

COMPARISON BETWEEN THE COLLECTIONS FROM THE 1976/1980 AND 1991-93 EXCAVATIONS

Table 3 compares the principal characteristics of the IRSNB and UNM/ULg collections from the Gravettian horizon at HH. It is difficult to compare the different excavation pits and trenches because they are of very unequal areas and, most importantly, they were located in very different parts of the site: some peripheral (our "railroad-side" and western "Smetz" areas and the western "road-side" IRSNB pits excavated by Froment) and others more central (Haesaerts' eastern "road-side" trenches and our "road-side" *sondage*). Of course, the most "central" of the excavations, that of J. Destexhe and the Chercheurs de la Wallonie, cannot be included in the comparison, as those collections (especially the knapping debris) have not been analyzed in detail.

The differences among the collections in terms of microdébitage and bladelets have already been commented. These small objects seem to have been winnowed away from the "downstream", channelled area exposed in the trenches dug by Froment along the western face of the road cut. The similarities between the two main collections (our block west of the railroad cut and Haesaerts' trenches along the eastern face of the road cut) are, however, generally striking. There are few cores, but relatively many cores; microdébitage slightly exceeds 50%; flakes are around 20-25%, blades are around 10-15%, bladelets are around 10%. The collection from our road-side *sondage* bears many similarities to those two collections in terms of cores, chunks, and blades. Microdébitage items and (to a lesser extent) bladelets are far fewer--probably due to winnowing by running water. This fact is even more pronounced in the IRSNB pits along the western face of the road cut, where it is obvious that small, light objects had been washed away. Blades are a fairly constant category (11-20%) among all the collections. Cortical items make up around 20% of all the collections east of the road (i.e., in the main site area), but (for reasons that are unclear) about double that percentage in the excavations west of the road.

Only one of the collections (Haesaerts' eastern road-side trenches) has a significant number of retouched tools (138). Burins are a high-percentage constant among all the collections, while endscrapers are always present but in very small numbers. Points are very rare (and, unlike the Tihon and Destexhe collections from the center of the main site, do not include tanged Font-Robert points). Continuously retouched pieces (and sidescrapers) are found in small numbers in all the collections. The Haesaerts collection is unique in having backed blades and bladelets--and not just a few, but actually 25.3%. Denticulates and notches (as well as retouched and denticulated bladelets and truncated pieces) are really only numerous in the Haesaerts collection.

TABLE 3

HUCCORGNE-HERMITAGE SITE:
SUMMARY OF LITHIC ASSEMBLAGES, 1976,1980,1991-93 EXCAVATIONS
(INSTITUT ROYAL DES SCIENCES NATURELLES DE BELGIQUE [IRSNB] AND
UNIVERSITIES OF NEW MEXICO [UNM] & LIEGE [ULg])

Excavation	Between Railroad and Road Trenches ("Dock")			West of the road	
	East RR Block (H-U6-9)	Road Pit (Q-R/25-26)	East Road Section	West Road Section	Main West Pit (J-U53-55)
Debris	UNM/ULg	UNM/ULg	IRSNB	IRSNB	UNM/ULg
Core	0.2%	0.1%	0.1%	1.3%	6.5%
Chunk	7.6	7.3	3.8	20.0	9.9
Platform Renewal Flk.	---	---	0.8	0.4	1.6
Crested Blade	---	---	1.1	---	---
Flake (>1cm)	26.5	44.6	19.7	47.1	39.3
Microdebitage (<1cm)	55.6	23.7	50.4	10.3	23.0
Blade (>2cm)	9.9	17.4	16.6	19.6	11.5
Bladelet (<2cm)	11.2	6.7	7.5	0.9	22.5
Burin Spall	0.2	---	0.8	0.9	---
N	1,327	998	5,681	225	61
All cortical items	22.1%	21.2%	20.9%	36.5%	40.9%
Tools	n	n	%	n	n
Endscraper	1	1	2.9	2	1
Burin	7	---	23.1	2	2
Endscraper-Burin	2	---	---	---	---
Perforator	1	---	2.1	---	---
Backed Blade(let)	---	---	25.3	---	---
Point	1 Gravette	1 Gravette	1.4 Shouldered	---	---
Truncated Pc.	---	---	6.4	1	---
CRP+S/S*	5	3	18.0	2	1**
Dentic.+Notch	3	---	16.0	---	---
Ret.+Dentic.Bladelet	---	---	4.3	---	1**
N	20	5	138	7	5

*: Continuously retouched piece + sidescraper.

** : From the small western pit, JJ-KK/45-46.

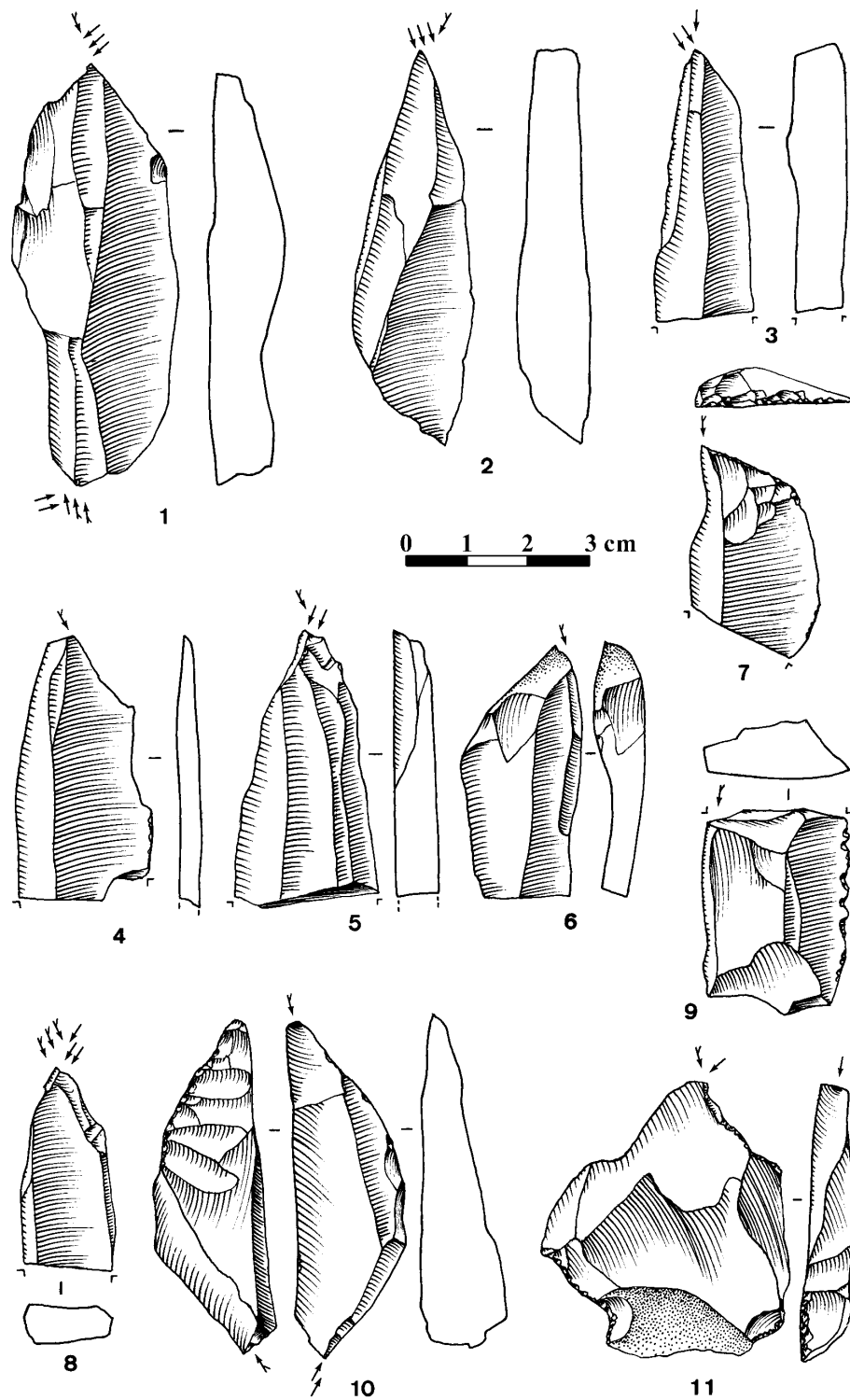


Figure 1a. Upper Paleolithic Tools: 1-3, 8, 10. multiple dihedral burins; 4, 6. angle burins on break; 5, 7, 11. burins on oblique retouched truncation; 9. angle burin on break and denticulate.

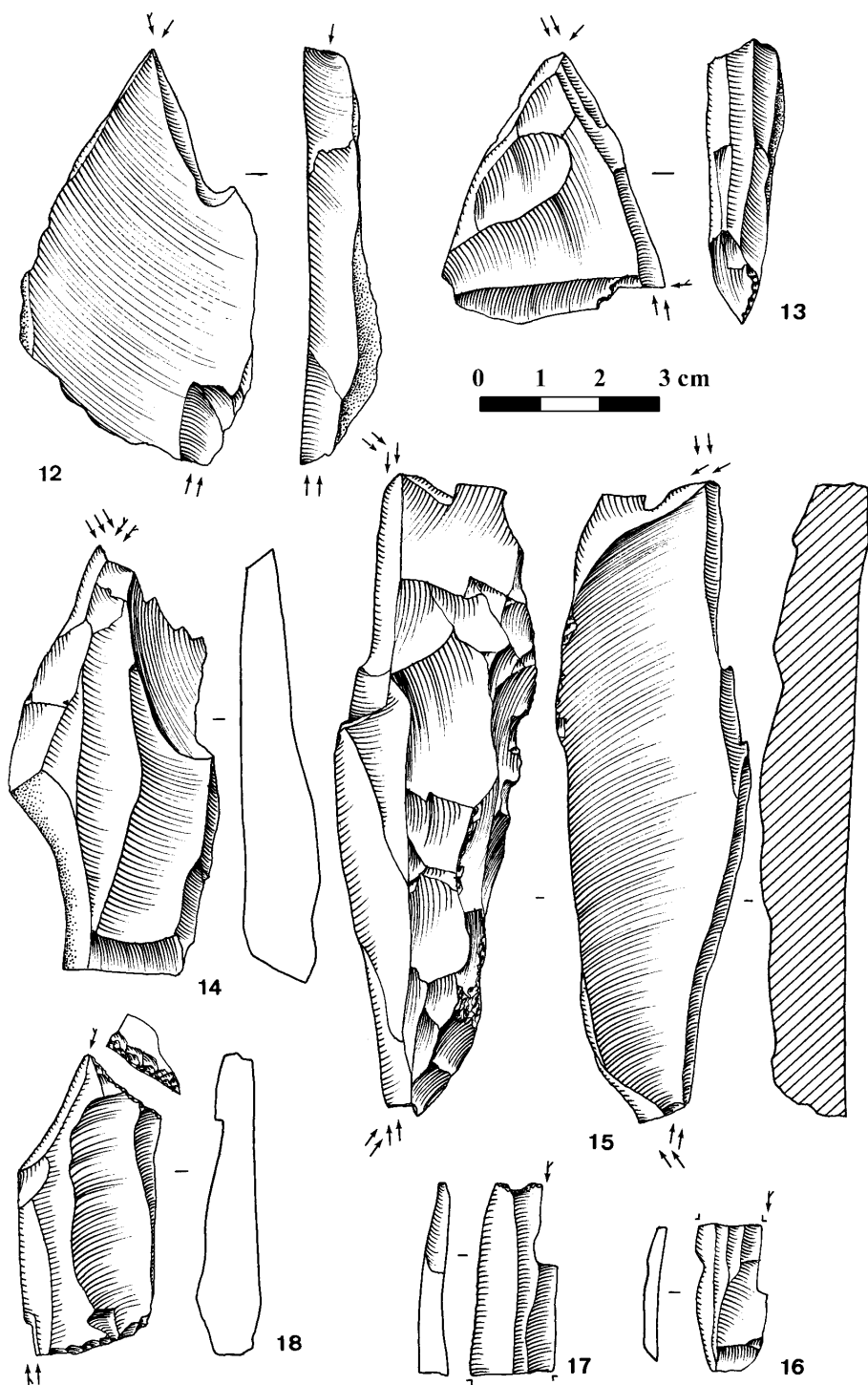


Figure 1b. Upper Paleolithic Tools: 12. multiple mixed burin; 13, 14, 15. multiple dihedrally burins; 16. burin on break; 17. burin on concave retouched truncation 18. multiple truncation burin.

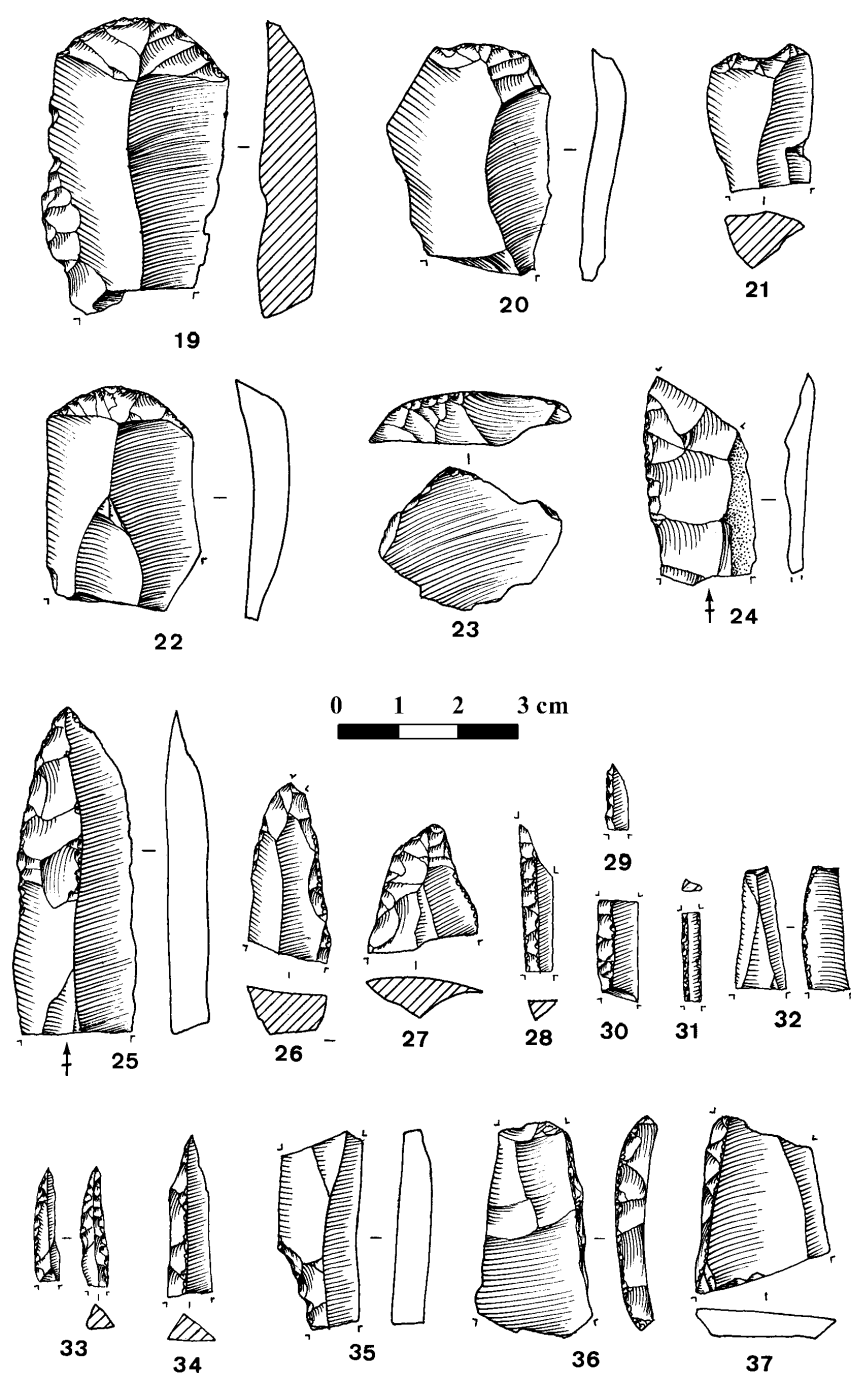


Figure 1c. Upper Paleolithic Tools: 19. endscraper on retouched blade; 20. carinated endscraper; 21. piece with concave retouched truncation; 22. endscraper on blade; 23. endscraper on flake; 24. unifacial point fragment; 25-27. pointed retouched blades (unifacial points?); 28-31. backed bladelets; 32. Dufour bladelet; 33. micro-Gravette or micro-perforator; 34. perforator; 35. shouldered point (?) fragment; 36-37. backed blades.

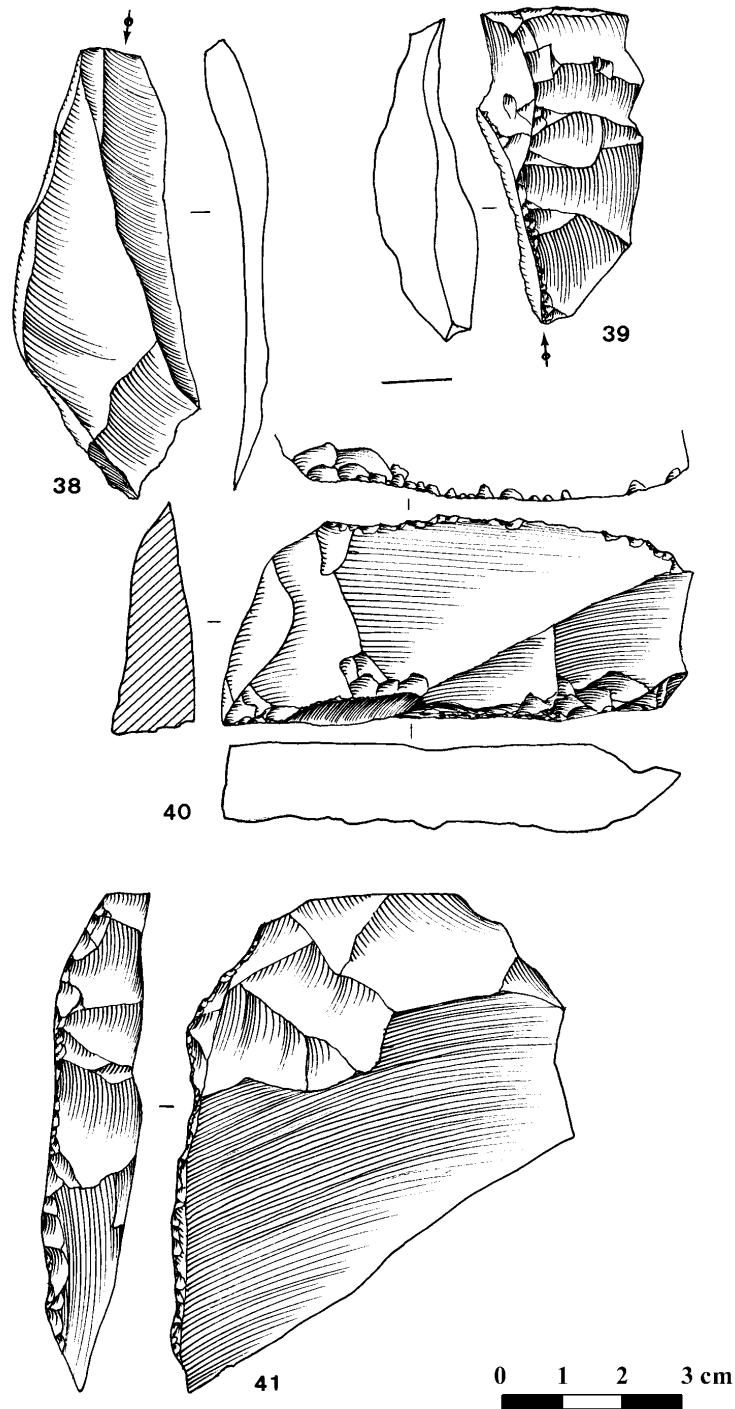


Figure 1d. Upper Paleolithic Artifacts: 38. blade; 39. platform renewal flake; 40. denticulate on platform renewal blade; 41. sidescraper.