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2-2

MESOLITHIC PALETHNOGRAPHY

RESEARCH ON OPEN-AIR SITES BETWEEN LOIRE AND NECKAR

PROCEEDINGS FROM THE INTERNATIONAL ROUND-TABLE MEETING IN PARIS (NOVEMBER 26–27, 2010)

as part of sessions organised by the Société préhistorique française

Published under the direction of

Boris Valentin, Bénédicte Souffi, Thierry Ducrocq,
Jean-Pierre Fagnart, Frédéric Séara, and Christian Verjux

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Character and variability of Early Mesolithic toolkits in Belgium and Northern France: the contribution of a functional approach

Colas Guéret

Abstract: The technological and typological study of Mesolithic domestic tools has often been hampered by their un-standardised nature. This study presents the results of a functional approach to three Early Mesolithic (Preboreal and Boreal periods) assemblages from Northern France and Belgium. Use-wear analysis has made it possible to identify different materials worked by Mesolithic groups, especially plants probably used in basketry and weaving. The examination of un-modified blanks sheds new light on the very significant use of the un-retouched pieces which dominate the toolkits. Furthermore, a more detailed analysis of different functional modes suggests that technical attitudes varied between different sites. Site functions, together with chronological and geographic differences were also factors likely to have played a role in the contrasts observed between sites. Functional studies, which are still too sporadic, undoubtedly have a part to play in untangling these factors.

'Atypical', 'poorly made' or 'rare' are just some of the expressions frequently associated with Mesolithic domestic toolkits. These qualifications succinctly illustrate the difficulties researchers have encountered for over a century in attempting to define these often flake based assemblages other than by simply resorting to the term 'un-standardised'. These features contrast with the Final Palaeolithic laminar blanks employed for the production of tools often more easily identified by typology (for example, Fagnart, 1997).

Beginning in the 1960s, J.-G. Rozoy insisted that domestic tools could be useful for differentiating Mesolithic cultural groups (Rozoy, 1978); while at the same time J. Hinout (1990) defined the Sauveterrian *with denticulates* in the southern Paris Basin. However, for the last twenty years criticisms of the contexts studied by pioneers of Mesolithic research often resulted in focusing typological approaches on the omnipresent microliths used to arm arrows.

The widespread adoption of technological approaches certainly narrowed the question of technical decision making during the Mesolithic, however they too inevitably ran up against the same difficulties confronted by traditional typologies. It is now clear that flakes transformed into domestic tools essentially represent waste products from bladelet debitage geared towards the production of microlith blanks (Souffi, 2004). However, the inclusion of retouch techniques did not significantly refine tool categories (GEEM, 1975).

Questions concerning the use of un-modified blanks also remain unresolved. This hypothesis, already defended by J.-G. Rozoy, has been unevenly acknowledged. For certain researchers, supposedly used tools with marginal removals were classed as 'retouched blanks' rendering their frequency in assemblages difficult to estimate (for example, Lang et al., 1997). While other researchers prefer to consider them as a type in their own right: for example at Chaussée-Tirancourt (Somme) 428 un-modified 'used' pieces were classed versus 237 retouched objects, excluding microliths (Ducrocq and Ketterer, 1995). This difficulty is further complicated by the definition of edge-damage: criteria for differentiating taphonomic alterations, functional modifications and genuine retouch remain difficult to distinguish using only basic macroscopic observations.

However, the frequency in which these seldom classified objects were used could become central to palethnographic and paleohistoric considerations progressively emerging in Mesolithic research. This question not only leads to an examination of the factors influencing toolkit transformations that began with the onset of the Holocene, but also invites us to reconsider the

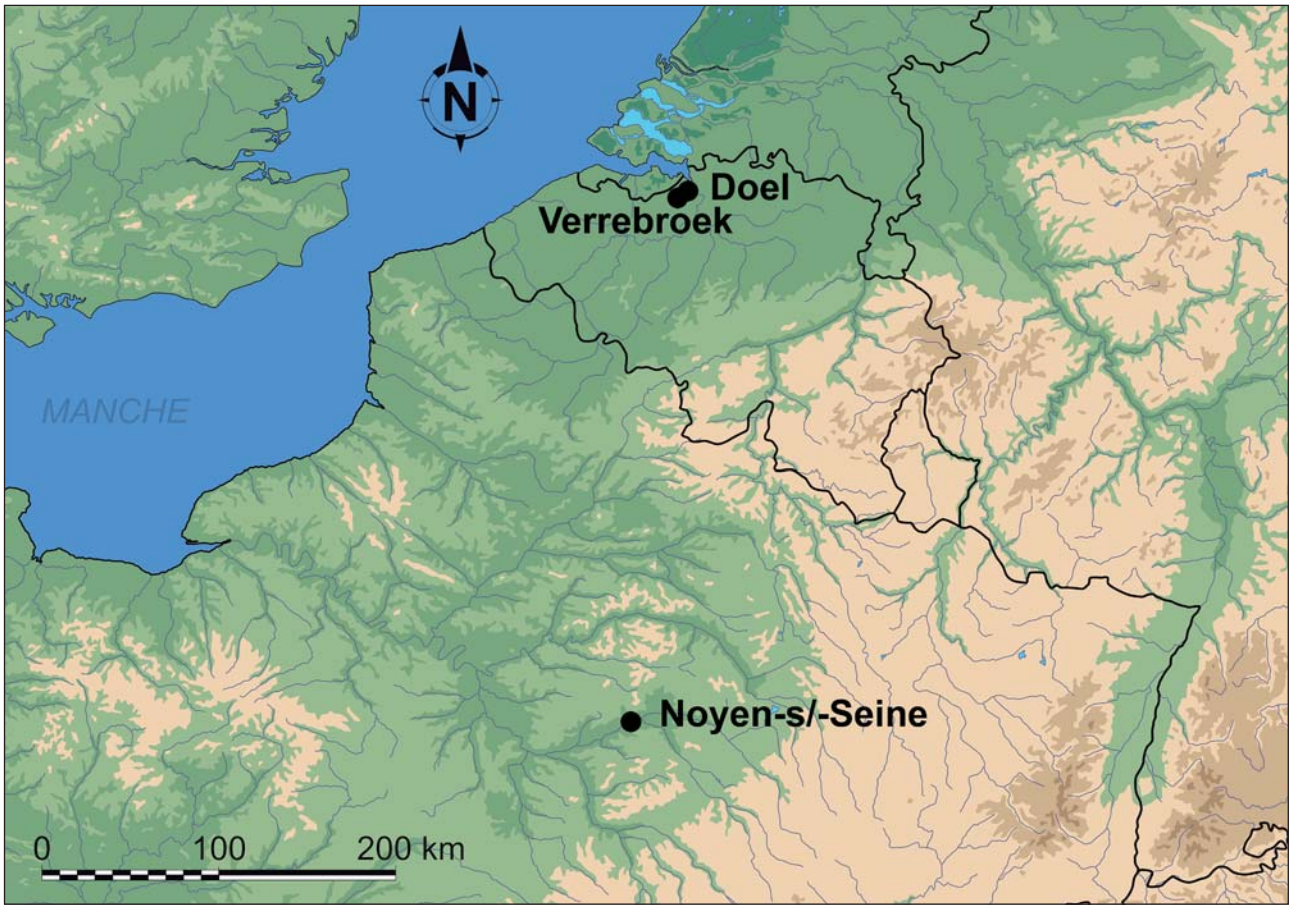


Fig. 1 – Location of the three sites studied.

role and function of different occupations. Are domestic tools really that rare or do they represent a tool category that traditional methods are somewhat at pains to recognise? Furthermore, is the uniformity apparent in these assemblages linked to a general simplification of technical systems or simply the product of a greater flexibility in Mesolithic technical choices? In order to address these questions we have favoured a use-wear approach employing traditional methods: all pieces were examined using both a stereo-microscope (5-40×) and a metallographic microscope (50-400×) with the observed traces of use compared to an experimental reference collection in order to determine the mode of tool function (motion and material worked). This article presents preliminary results obtained from several Early Mesolithic sites (Preboreal and Boreal periods *sensu* Costa and Marchand, 2006) in Belgium and Northern France.

DATASET AND SAMPLING STRATEGY

The collections examined here derive from three well-documented sites (fig. 1) that are the subject of several articles in this volume (Crombé et al., this volume; Mordant et al., this volume; Noens, this volume).

The sites of Dok at Verrebroek and Deurganckdok J/L at Doel are found in Sandy Flanders (Belgium). Rescue

	Noyen	Doel C2	Verrebroek C17
Scraper	3 (2)	12	33
Denticulated flake	64 (4)		2
Burin	2	7	9
“Pièce esquillée”	13		2
Retouched flake	20	13	17
Fragment of retouched artefact			12
Truncation		1 ?	1
Notch	2	1	2
Backed piece	1	1	1
Other		2	1
Total	105	37	80

Table 1 – Typological composition of the studied assemblages. Tools to be considered with caution are in parentheses.

	Noyen s/ S.	Verrebroek	Doel
Flint nodules	+ 20 cm	- 10 cm	- 10 cm
Fire activities	limited	intense	limited
Archeological and taphonomic bias	no chips	no bias	no bias
Sieving	yes	yes	no

	Noyen s/ S.	Verrebroek	Doel
Number of lithic artefacts	1468	50691	671
Retouched tools	++	+	+
Usable pieces (edge > 2cm)	+++	+	+
Chips	-	++	+
Overheated artefacts and debris	-	+++	-

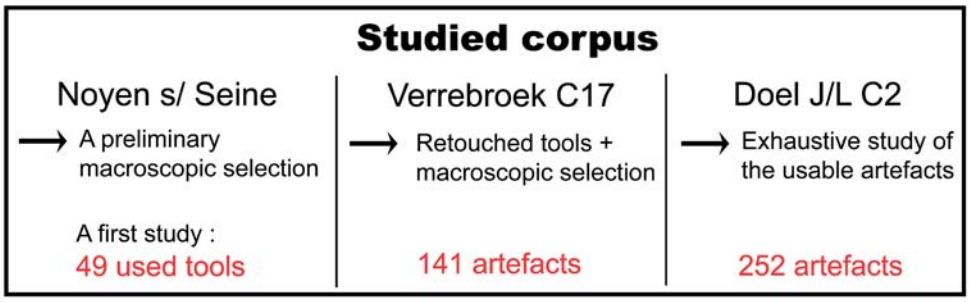


Fig. 2 – Factors influencing lithic assemblage composition. Relative proportions of the different artefacts categories and sampling strategies for the functional study.

excavations of Lateglacial dunes carried out between 1992 and 2003 by a team directed by P. Crombé from the University of Ghent exposed several dozen lithic concentrations dated mainly to the Preboreal/Boreal transition. These well-preserved occupations have already been the subject of several detailed use-wear analyses carried out by V. Beugnier concerning eight loci from Verrebroek and one from Doel (Beugnier and Crombé 2005; Beugnier, 2007). Our examination of concentration C17 from Verrebroek and locus C2 (sector J/L) from Doel (Jacops et al., 2007) builds directly upon this work. The regional lithic industries are characterised by the generally small size of the material, coupled with an often weak retouched tool component dominated by endscrapers and occasionally burins (table 1). Excluding the significant proportion of thermally altered material from C17, the preservation of two loci is very good; the material is unpatinated and soil sheen is within reasonable limits.

The site of Haut-des-Nachères at Noyen-sur-Seine (Seine-et-Marne, France) has become famous since its discovery in 1983 (Mordant and Mordant, 1987). Rescue excavations directed by D. and C. Mordant of a peaty paleo-channel recovered exceptional vegetal remains (basketry and a dugout canoe) associated with abundant fauna. Several dates place the occupation that interests us here (system 9: Mordant et al., this volume) to around 8000 BP (non-calibrated) or the Boreal/Atlantic transition. The rather modest amount of lithic material is characterised by an extreme paucity of bladelets and microliths. Denticulates are the most common retouched tool

	Noyen	Doel	Verrebr.	Total
Plant working (stricto sensu)	32	9	23	64
Cutting, sawing	3			3
grooving	1		1	2
scraping	16 (1)		1	17 (1)
transversal oblique motion		9	21	30
undetermined	12			12
Vegetal fibers stripping	3	17	1?	21
Vegetal material working (including wood)	23	2	3	28
scraping	17		3 (1)	20 (1)
grooving	3			3
splitting	1			1
undetermined	2	2		4
Skin processing	21	8	26	55
scraping	19 (1)	6	25	50 (1)
cutting	1 (1)	2 (1)	1	4 (2)
undetermined	1			1
Animal hard material working	1	2	0	3
scraping	1 (3)	2 (1)		3 (4)
grooving		0 (5)		0 (5)
undetermined				
Animal soft material working	1	3	7	11
butchery	1		7 (1)	8 (1)
cutting	0 (2)	3 (1)		3 (3)
Mineral material working	8	1	4	13
Strike-a-light	3		2 (1)	5 (1)
ochre working	2			2
other	3	1	2	6
Other	5	2	16	22
undetermined material scraping	4 (1)	1	8	12 (1)
grooving			1	1
cutting, sawing	1		1	2
percussion			1	1
undetermined		1	5	6
Total	94	44	80	218

Table 2 – Activities identified by the use-wear study (in numbers of use-zones). Uses to be considered with caution are in parentheses.

in an assemblage otherwise dominated by flakes (table 1). The preservation of the material varies as a function of its proximity to the peat levels, but is generally satisfactory for a microscopic examination.

The three collections were analysed with the same level of detail, all domestic tools were examined for use-wear, including the maximum number of un-modified pieces. However, for these latter pieces, it was necessary to select a sample adapted to the extremely variable composition of assemblages. The major characteristics of each assemblage and a synthesis of the choices made during this phase of the study are detailed in figure 2.

The results of the use-wear study are first presented by worked material and then considered from a more general techno-functional perspective.

THE WORKED MATERIALS AND *CHAÎNES OPÉRATOIRES*

Overall, the study of Doel and Verrebroek, as well as provisional observations of 49 pieces from Noyen, uncovered definitive evidence of 218 use-zones (UZ, table 2).

The large-scale working of vegetal materials

The working of vegetal material is represented by a very significant number of use-zones in all three assemblages. At Doel and Noyen, they represent by far the largest proportion of identified UZ. Overall, 113 of the 218 almost always un-modified edges were involved in this type of activity.

At Noyen, distinguishing between working wood or plants (in a strict sense) for the 58 UZ concerned was not always possible, however non-woody materials were worked the most often. Scraping, as well as several unidentified transverse actions, are almost exclusively represented; cutting or grooving is limited to just a handful of UZ (fig. 3). All of the pieces showing evidence for scraping plant materials are marked by a fairly flat, very shiny asymmetric polish often visible to the naked eye and sometimes very invasive on the ventral face of the piece. However, apart from these shared characteristics, differences observed between UZ complicate classifying different uses (figs. 4 and 5). This diversity of wear probably reflects the variety of worked species, as well as the freshness of the material which is still difficult to determine.

The situation is very different for the Belgian sites. At both Doel and Verrebroek, 30 oblique transverse actions, with a leading edge angle greater than 90° (positive-rake angle), involving plant materials were recognized (fig. 6). The fine, often slightly concave edges carry a very shiny polish oriented obliquely to their edges. This fairly flat polish is regularly marked by fine striations uniquely on the ventral face (fig. 7). These traces have already been largely described by V. Beugnier (2007), who observed

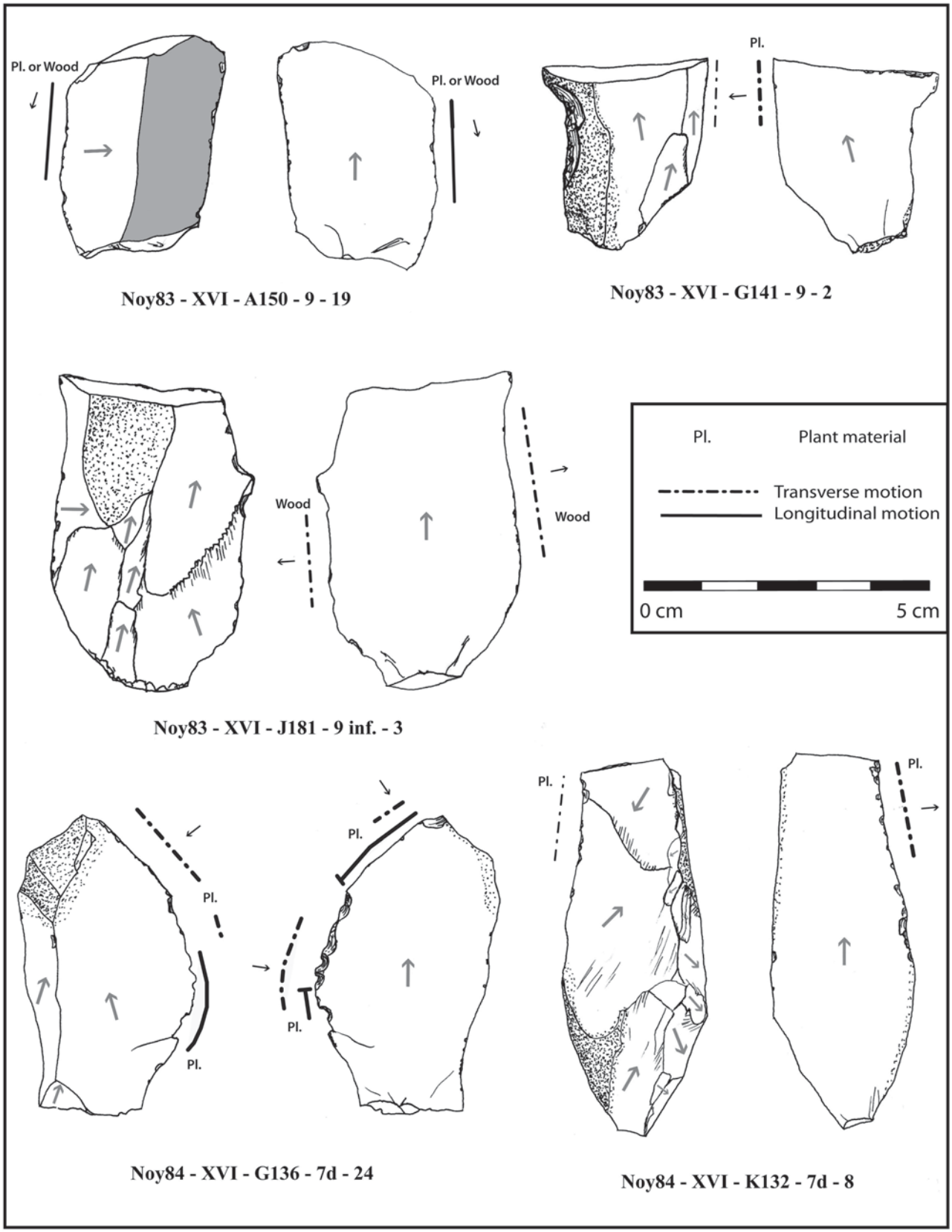


Fig. 3 – Noyen-sur-Seine, system 9. Several tools associated with working vegetal material.

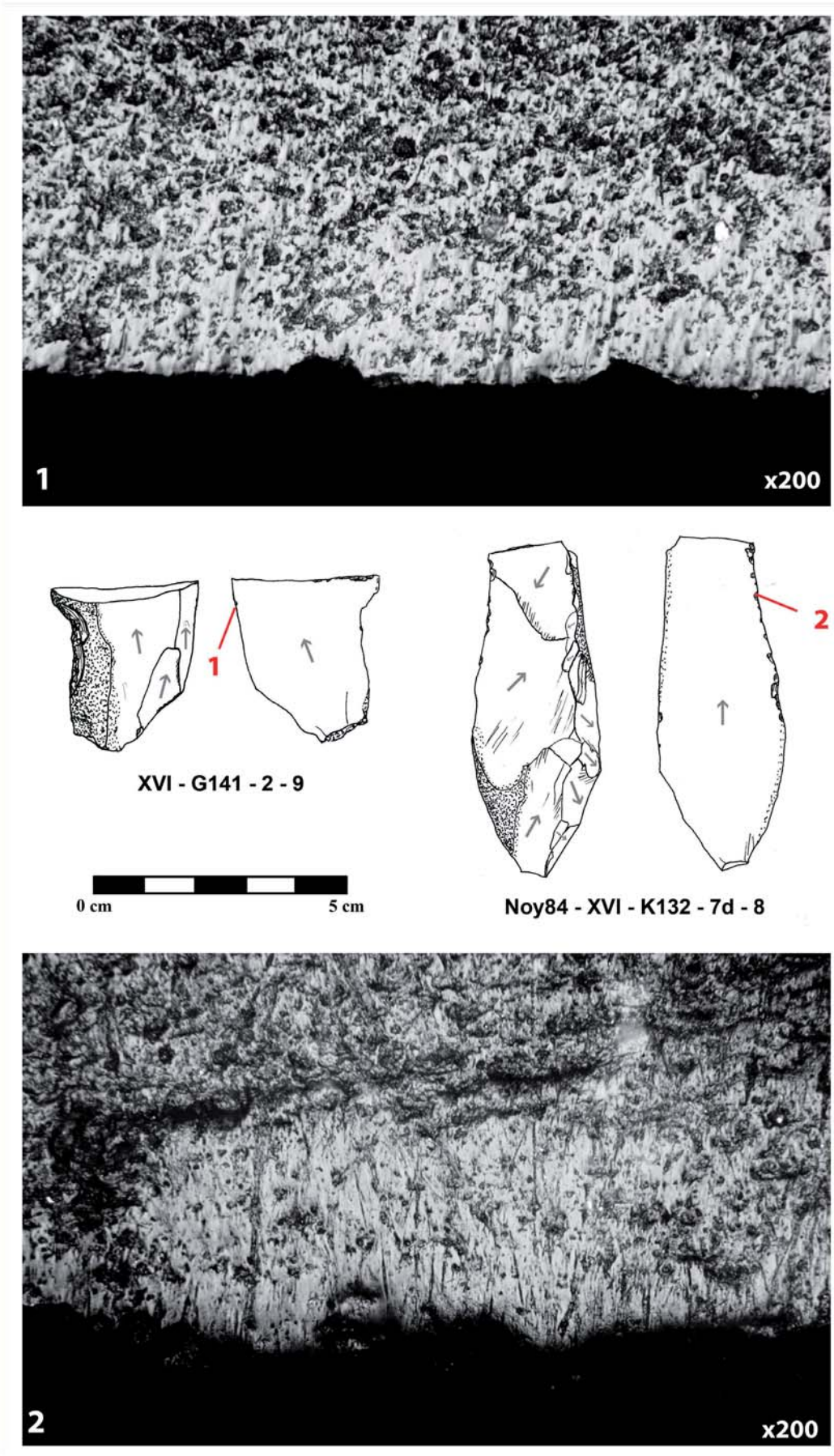


Fig. 4 – Noyen-sur-Seine, system 9. Two examples of scraping plant material with a leading edge angle greater than 90° (positive-rake angle). In both cases, the photograph of the ventral face corresponds with the flank face.

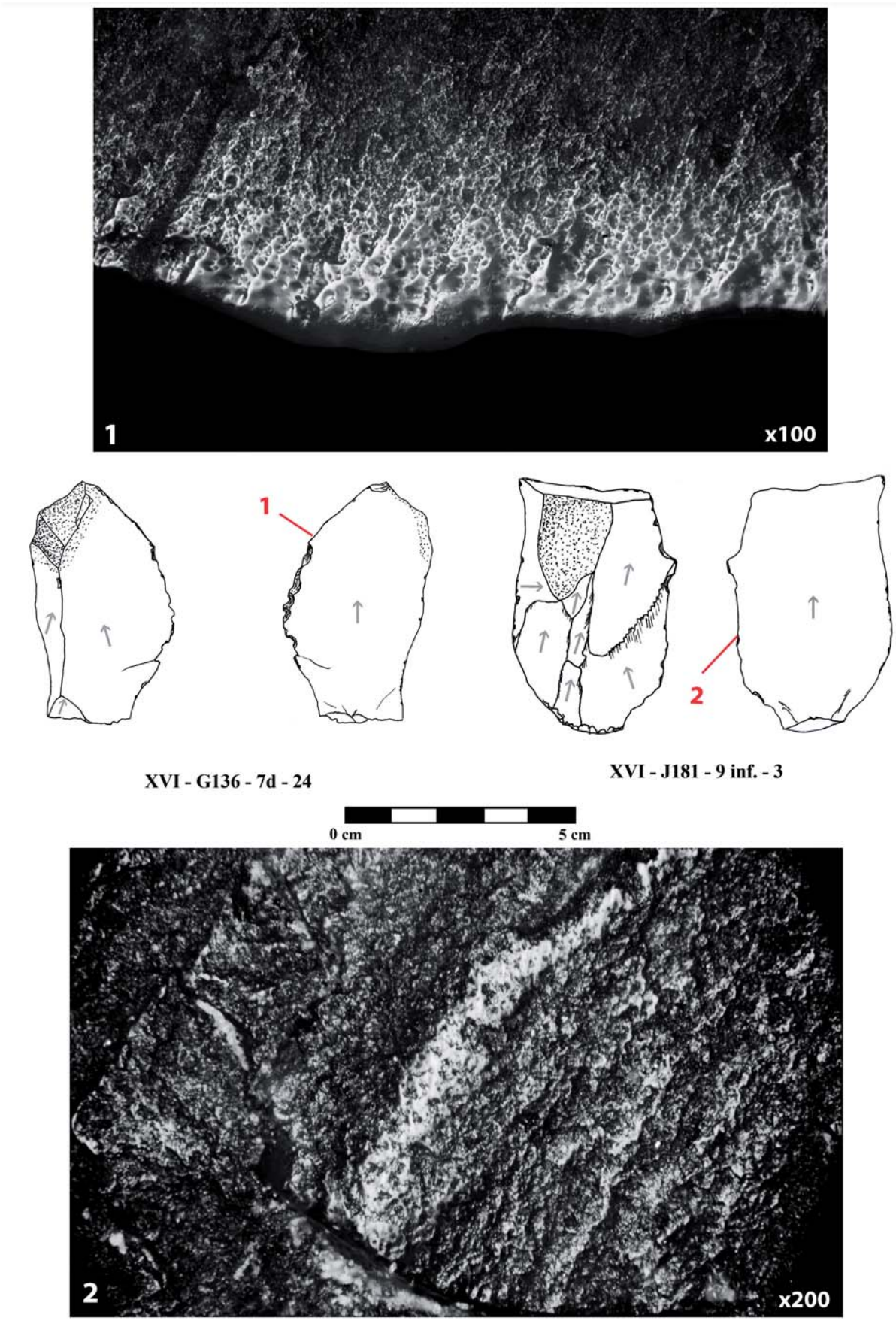


Fig. 5 – Noyen-sur-Seine, system 9. Top, very bright polish associated with cutting fairly rigid siliceous plant material (perhaps reeds). Bottom, smooth domed polish on a hackle characteristic of scraping wood with a leading edge angle greater than 90° (positive-rake angle).

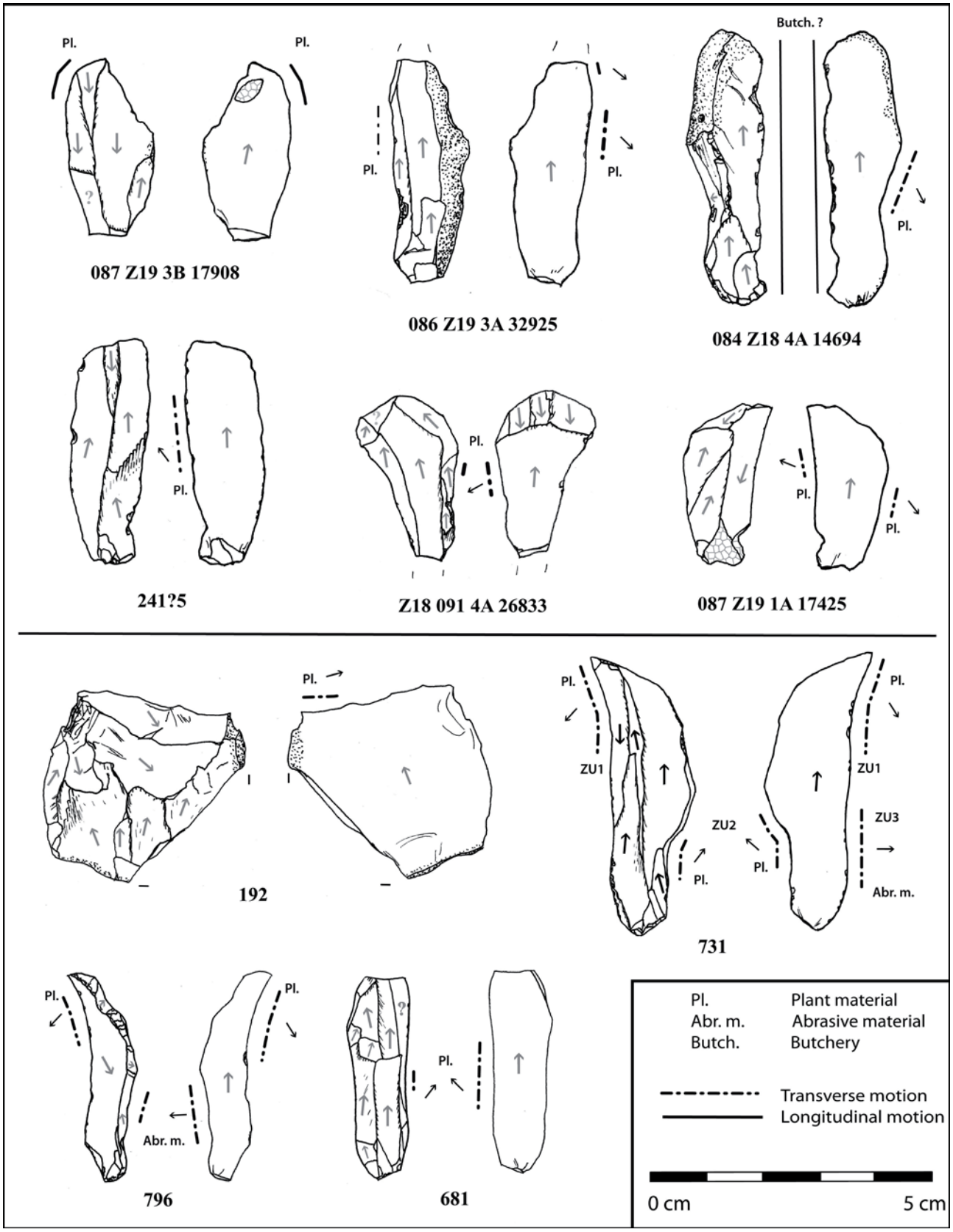


Fig. 6 – Verrebroek C17 (top) and Doel C2 (bottom). Characteristic tools from Sandy Flanders' assemblages used on plant materials with an oblique transverse motion.

this type of use in 8 out of the 9 concentrations studied from the two sites. Despite certain variations, especially in the frequency of striations, these 30 UZ constitute a very homogeneous group both at the level of the traces themselves, as well as the edges used. The obliqueness of the motion, sometimes close to 45°, most likely suggests the splitting of siliceous plants such as rushes or reeds.

Finally, at Doel 13 of 17 edges bear very particular abrasive traces. The dorsal faces of concave or straight cutting-edges are micro-damaged with a very specifically localised rounded edge bearing matte wear on both faces: more invasive on the ventral face and often more striated on the dorsal face (fig. 9). Although this type of use-wear approximates that produced by the working of dry skins, the UZ's morphology and the distribution of the traces are most similar to those observed by J.-P. Caspar for the scutching of vegetal fibres now well-known from Neolithic contexts (Caspar et al., 2005). The tools from Doel are therefore amongst the oldest known depicting this type of action.

This new evidence of a well-developed vegetal handicraft during the Mesolithic complements several other studies carried out over the last twenty years (Juel Jensen, 1994; Van Gijn et al., 2001; Beugnier, 2007), as well as discoveries of basketry and weaving from waterlogged contexts (Mordant and Mordant, 1987; Mertens, 2000; Fitzgerald, 2007; McQuade and O'Donnell, 2007). The fish-traps and the basket from Noyen are the oldest examples known from Europe to this day. Although in terms of use-wear, the exact nature of the plants worked, and by what motions, remains however difficult to determine. Experimentation carried out by other researchers (Beugnier, 2007) has not succeeded in succinctly reproducing most of the polishes observed on tools and, furthermore, the archaeological objects made from these plants are still unknown. The rarity of tools presenting evidence for working woody materials in the assemblages studied is equally surprising. Perhaps it is necessary to look for such tools amongst the osseous and stone macro-tools?

The working of soft animal materials

Fifty-five UZ definitely connected to the working of skins were identified from the three sites considered here. In 50 of these cases, a scraping action could be identified, associated once again with limited longitudinal traces. In Belgium, apart from a few examples, this wear is found on small endscrapers (figs. 10 and 11) that, not surprisingly, were used fairly intensively to work often dried skins with a positive-rake angle, sometimes with a help of an additive. Their small size and method of use implies the presence of a haft which has not left any detectable traces. At Noyen, the three endscrapers present no wear, however 19 generally convex un-modified edges served to scrape cutaneous tissue with a negative-rake angle when identifiable (figs. 12 and 13). In our opinion, the rarity of cutting tools (cf. longitudinal traces) associated with the working of dried skins raises questions concerning a possible spatial and temporal separation of *chaîne opératoires*, notably in Belgium where this infrequency has already been noted by V. Beugnier.

Evidence of butchery, as is normally the case, is largely under-represented in the functional spectrum; only seven cutting-edges from Verrebroek and a single one from Noyen have edge-damage associated with several hard spots indicative of contact with bone. At Doel, only three UZ suggest cutting actions on a soft animal material. This low frequency is easily explained given the faint traces left by this type of use, coupled with taphonomic factors rendering it difficult to accurately interpret this type of wear. However at Noyen, the significant number of osseous remains present clear evidence of intense butchery activities carried out on the site. The possibility that denticulates were also involved in carcass processing remains unresolved (fig. 14), however their use in butchery activities has been advanced for the south-western French Middle Palaeolithic based on the macroscopic analysis of this type of tool (Thiebaut et al., 2007). Preliminary microscopic observations of the Noyen material have demonstrated an association of edge-damage, small amounts of wear, a soft fluid polish and 'osseous' spots on the points of certain denticulates. This evidence, although compatible with butchery, is only occasional and requires further analyses in order to be properly interpreted.

Occasional working of hard animal materials

Evidence for working hard animal materials is rare, only three UZ bear marks consequential enough to be definitively attributed to the scraping of bone or antler with a leading edge angle less than 90° (negative-rake angle) (fig. 15). Certain other traces referable to scraping hard materials are good candidates, but do not provide definitive evidence for the working hard animal materials. It is still a bit premature to deduce a lower investment in osseous tools during the Mesolithic. At Noyen, where faunal remains are remarkably well-preserved, bone tools and significant quantities of manufacture waste attest to sawing and grooving, a practice that has not yet been identified from the lithic material (David, submitted). Furthermore, it is common to find several bone tools or technical pieces abandoned on relatively brief Early Mesolithic campsites in Northern France and Belgium. The osseous industry probably had a longer use-life than stone tools and these technical elements, linked to short occupations, argue in favour of a continually renovated *toolkit* that responded to the needs of these groups, but quite unlike toolkits known from around the Baltic region.

FUNCTIONAL DATA AND TYPO-TECHNOLOGICAL APPROACHES

Very occasionally retouched tools

From a techno-functional standpoint, the ubiquitous unmodified tools constitute the structuring element of the

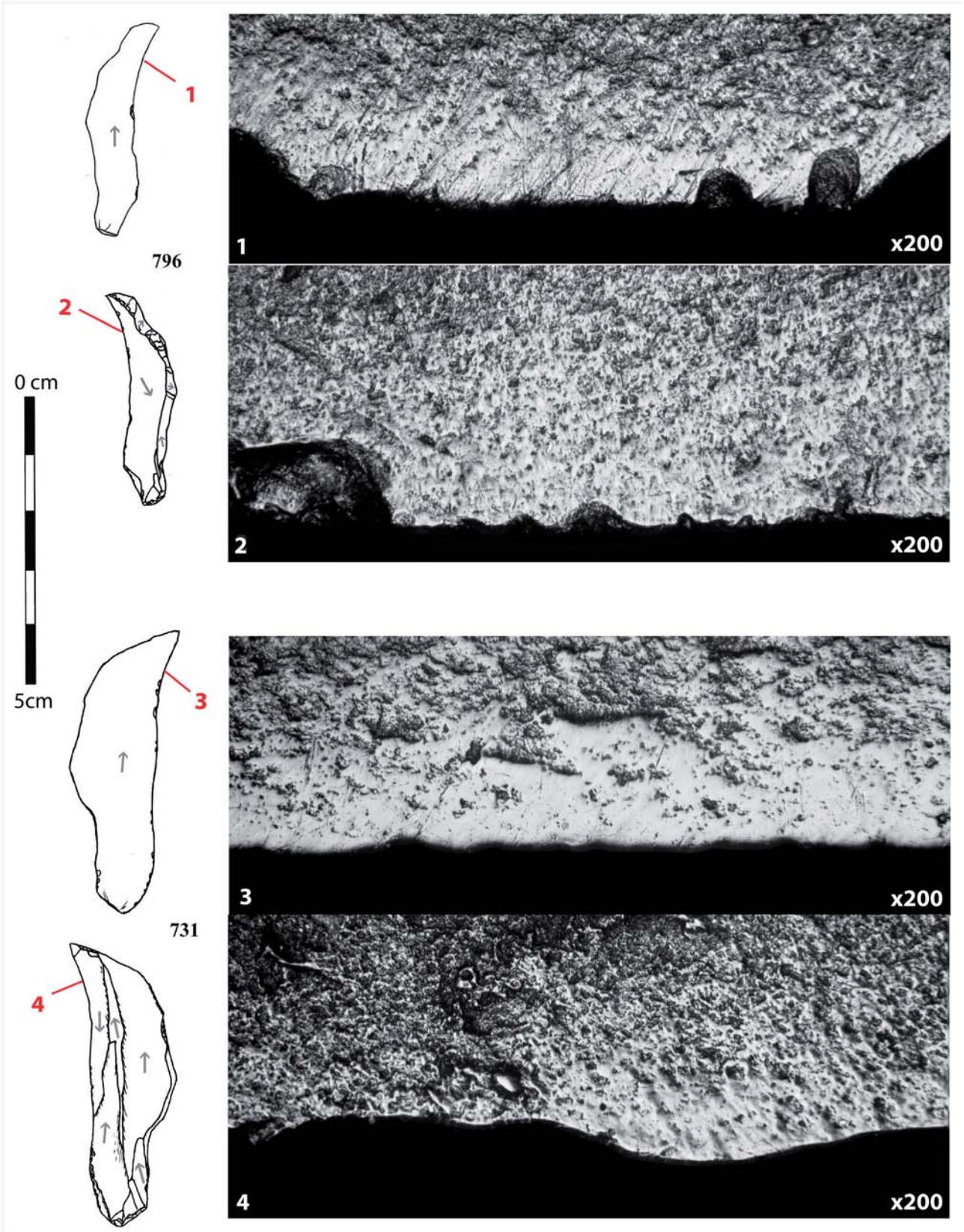


Fig. 7 – Doel C2. Two tools used on plant materials. The very bright polishes result from a transverse oblique motion with a leading edge angle greater than 90° (positive-rake angle). The asymmetry between the rake face (dorsal face) and the flank face (ventral face) is systematically evident.

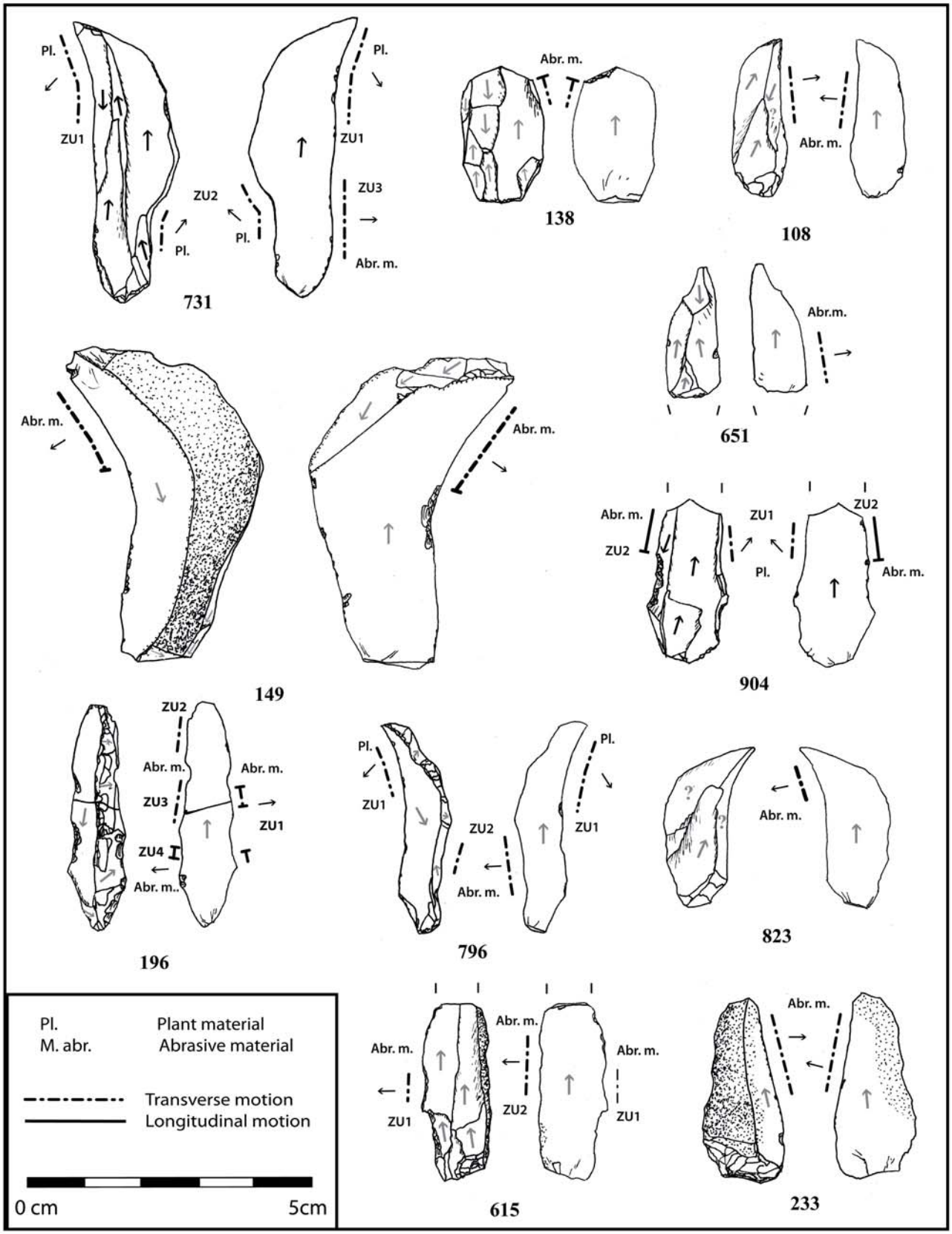


Fig. 8 – Doel C2. 12 of the 13 tools associated with the scutching of vegetal fibres. Pieces 731 and 796, already illustrated in figs. 6 and 7, both bear traces associated with the scutching of vegetal fibres, in addition to traces of working plant materials.

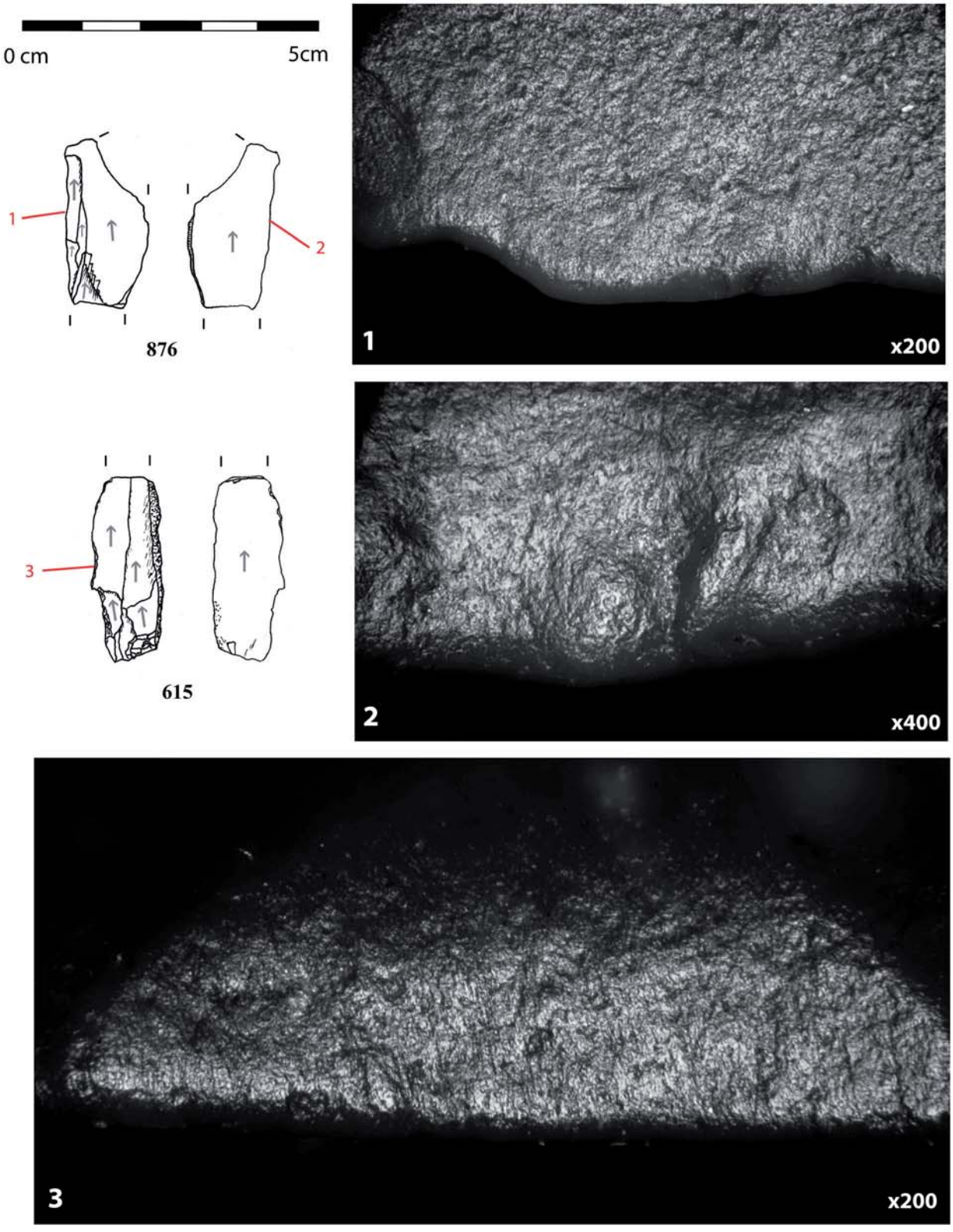


Fig. 9 – Doel C2. Matte blunting typical of scutching. 1: blunting regularly marks the line of the ventral face; 2: it penetrates the hollows of the removals on the dorsal face; 3: the striations are sometimes abundant on the dorsal face, even in the most concave zones.

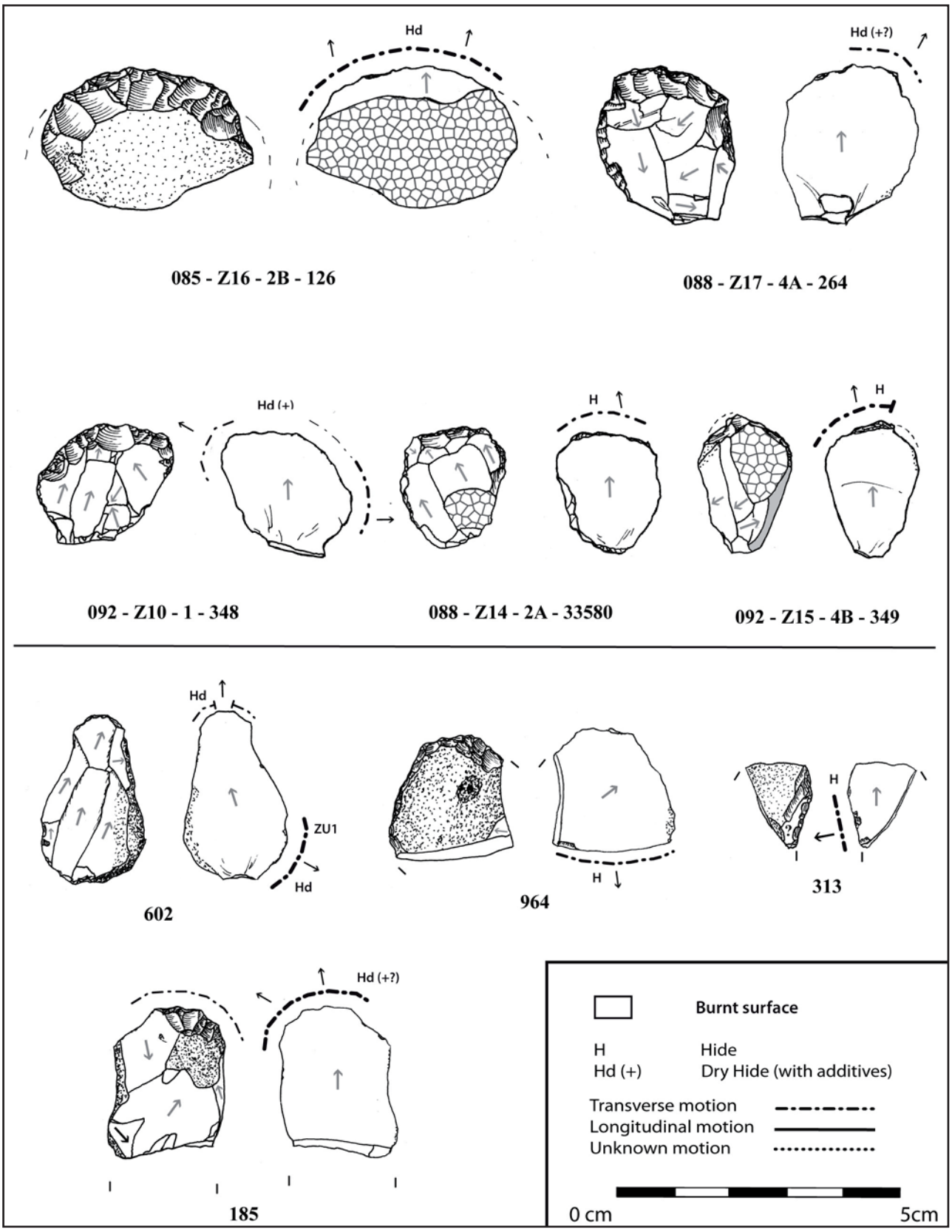


Fig. 10 – Verrebroek C17 (top) and Doel C2 (bottom). Several used endscrapers (top) and the four pieces bearing wear from scraping skins (bottom).

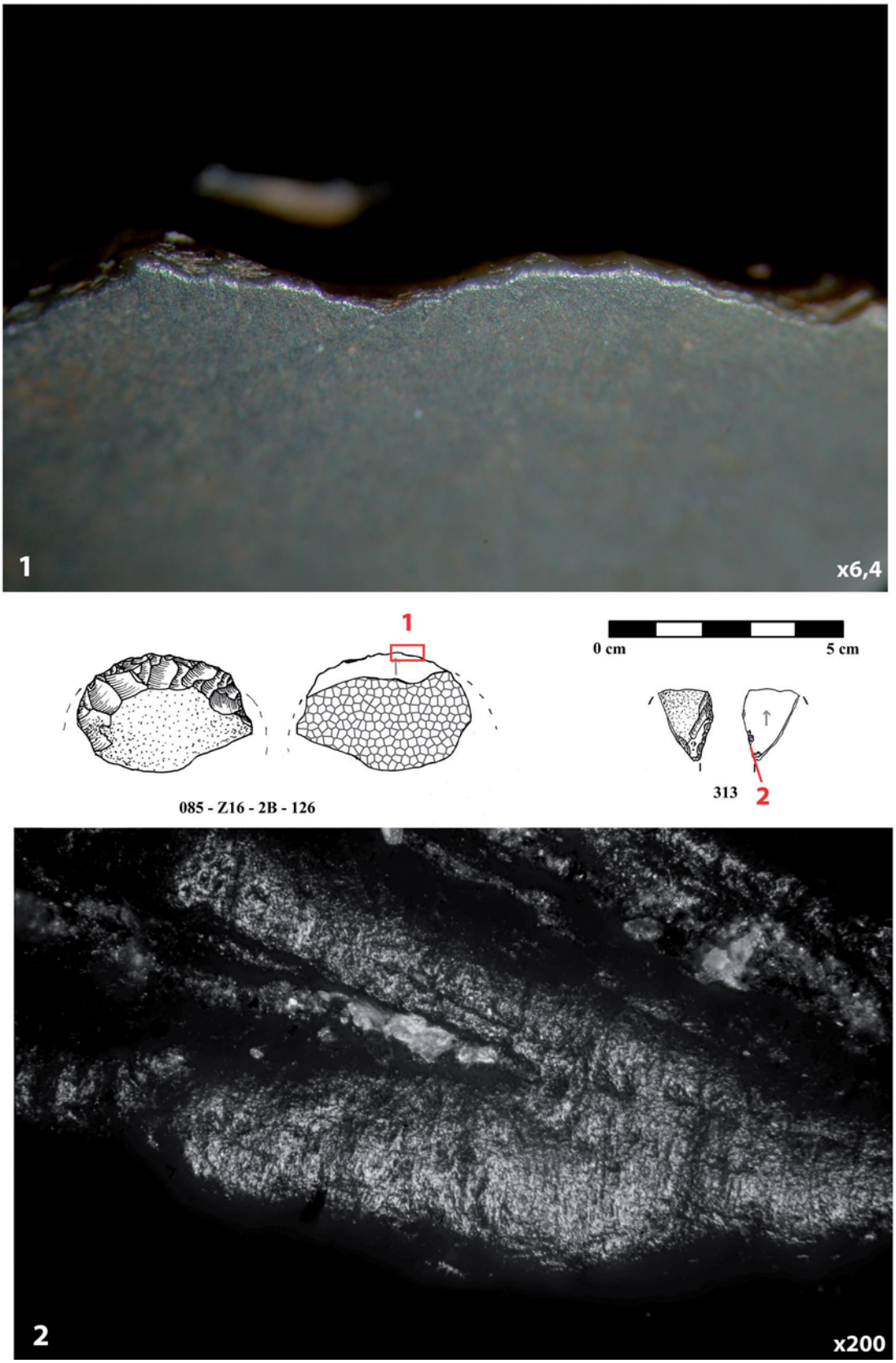


Fig. 11 – Verrebroek C17 and Doel C2. Two scales of observation. 1: endscrapers are regularly worn macroscopically at Verrebroek; 2: microscopically, the rough polish and the sometimes abundant striations most often demonstrates the scraping of dried skins with a leading edge angle greater than 90° (positive-rake angle), as here with Doel.

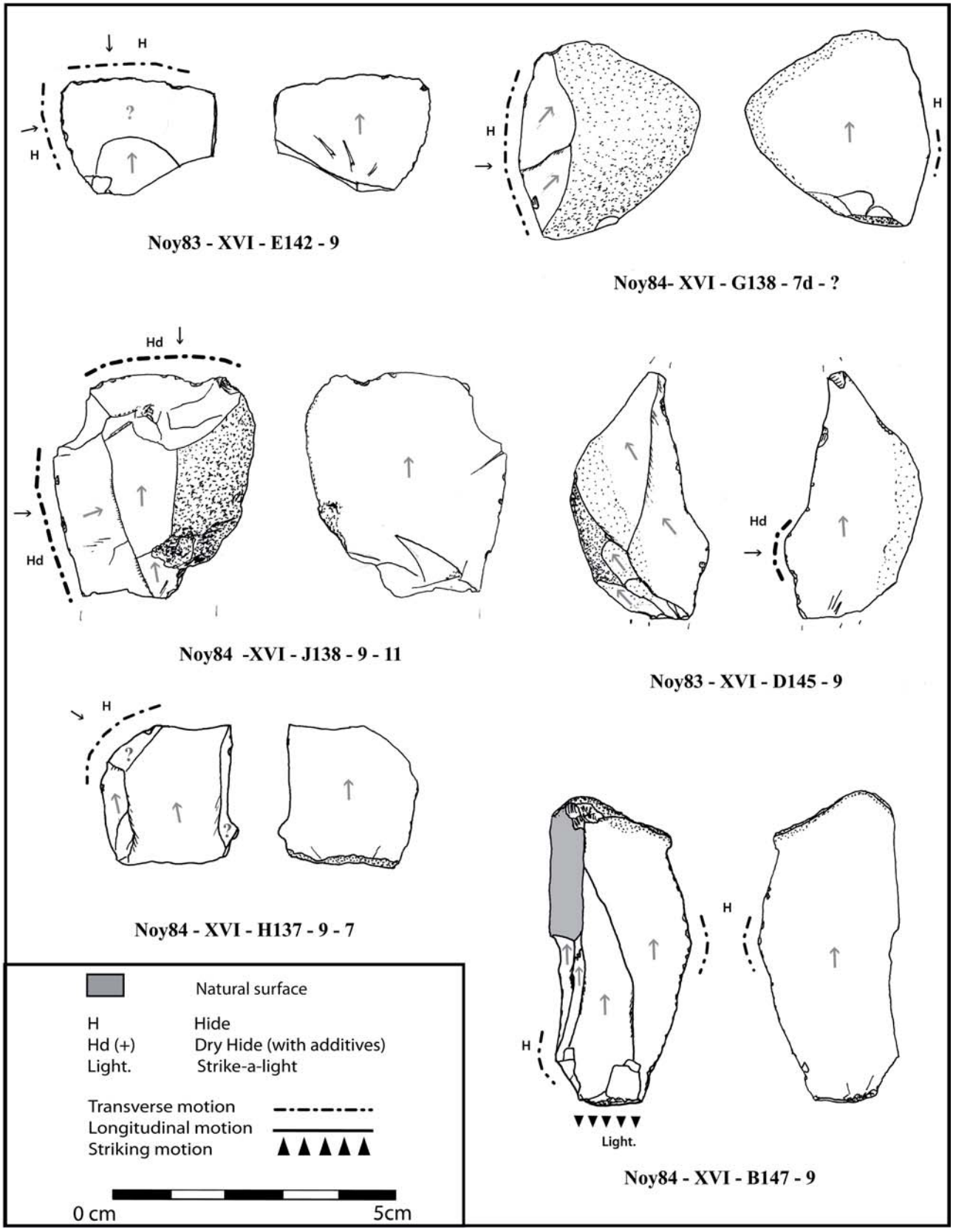
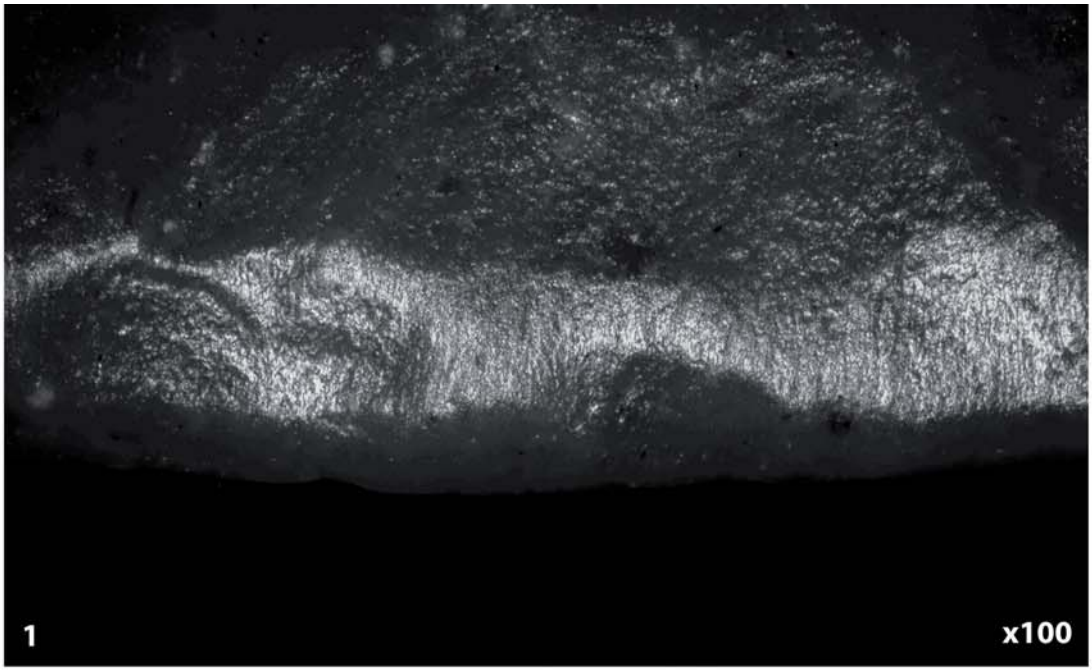
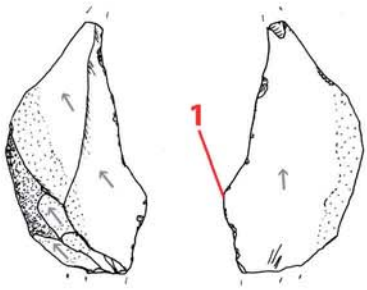


Fig. 12 – Noyen-sur-Seine, system 9. Some of the un-modified convex edges used to scrape skins.





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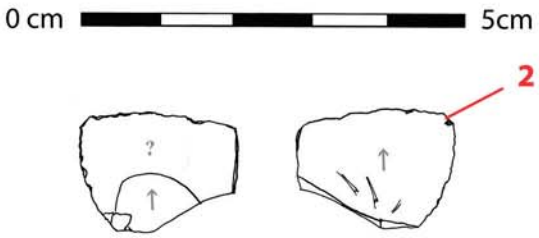

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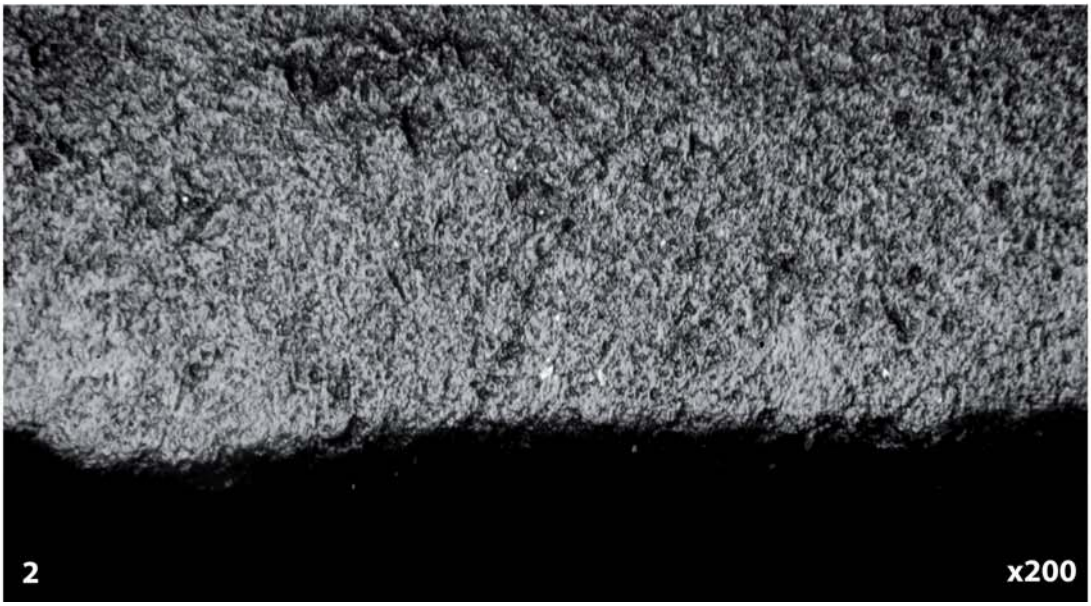

Fig. 13 – Noyen-sur-Seine, system 9. Rounded edges and rough polishes produced by scraping skin with a leading edge angle less than 90° (negative-rake angle) aided by un-modified convex edges.

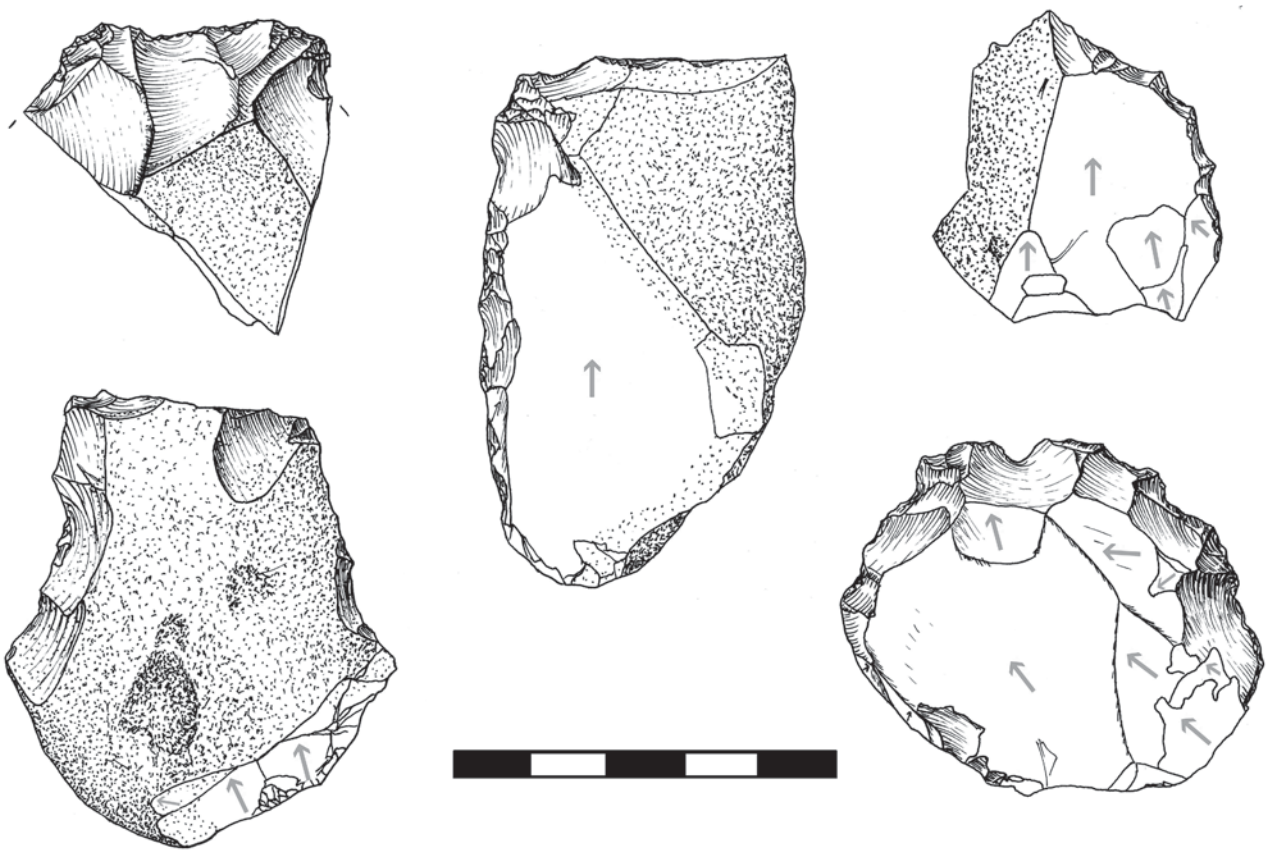

Fig. 14 – Noyen-sur-Seine, system 9. Five typical denticulates.

studied assemblages. Of the 218 UZ identified, only 43 were intentionally retouched, amongst which 24 were the fronts of endscrapers. Doel is the best example: of the 44 tools identified, only four were modified before being used, while oddly, 28 retouched pieces bore no evident functional traces. All types of activities can be performed with un-modified edges, ranging from basketry to lighting a fire, or even tanning dried skins. Piece E186-11-1 from Noyen is a perfect example of the functional potential of a simple thick blade: no less than 8 UZ correspond to the working of at least five different materials (bone, skins and three types of vegetal matter)!

The intense use of intentionally un-retouched tools is clearly not a big surprise as it confirms what many have suspected for some time in recognising pieces with 'retouch' derived from use, as well as edge-damaged blanks. However, it should be noted that part of the chipped cutting-edges identified macroscopically in this study were not connected to a use and in numerous cases, the active edges bear no removals recognisable to the naked eye. Moreover, in the absence of use-wear analysis, a major aspect of these stone tools ultimately remains invisible, one which may have repercussions for palethnographic interpretations. This especially concerns the working of vegetal matter: almost every tool used for this activity remained un-retouched despite the processing of plant materials being central to Mesolithic technical systems in Northern Europe.

Towards an integration of functional information with chrono-cultural considerations

Some of our functional observations could contribute to more general chrono-cultural considerations commonly focused on elements of projectile weapons. In fact, certain very specific functions do not appear consistently in all the assemblages.

In Belgium, specific tools used to work plant material could become signature elements of Preboreal/Boreal Mesolithic occupations in Sandy Flanders (Beugnier, 2007). The concave or rectilinear morphology of their edges coupled with the general fineness of cutting-edges and their oblique use on plant materials with leading edge angles greater than 90° (positive-rake angle) connected to well-individualised *chaîne opératoires*, unite bladelets and several flakes within a very significant and homogeneous group. However, this type of object was not recognised at Noyen despite the large number of pieces used to work non-woody materials. The situation is the same for the site of Swifterbant d'Hardinxveld (Holland), although the motions employed do not seem quite as oblique (Van Gijn et al., 2001). On the other hand, the Flandrian tools are comparable with numerous pieces from Late Danish Mesolithic contexts described by H. Juel Jensen (1994) as 'curved knives'. In this case, while the blanks were definitely produced by indirect

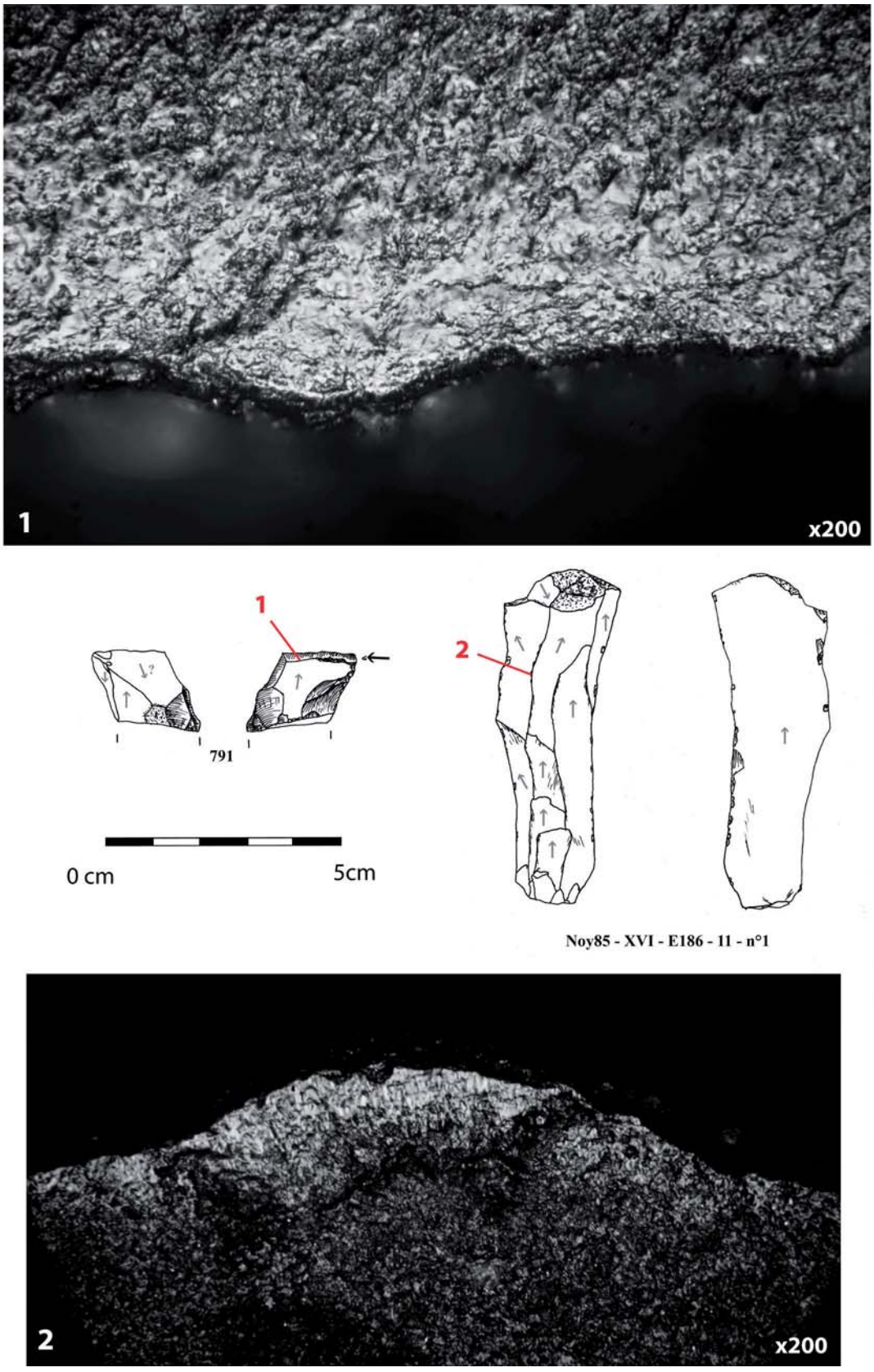

Fig. 15 – Doel C2 and Noyen-sur-Seine, system 9. Two episodes of scraping osseous material with a leading edge angle less than 90° (negative-rake angle). 1: with a burin facet at Doel; 2: with an arris at Noyen. Photograph of the polish on leading face.

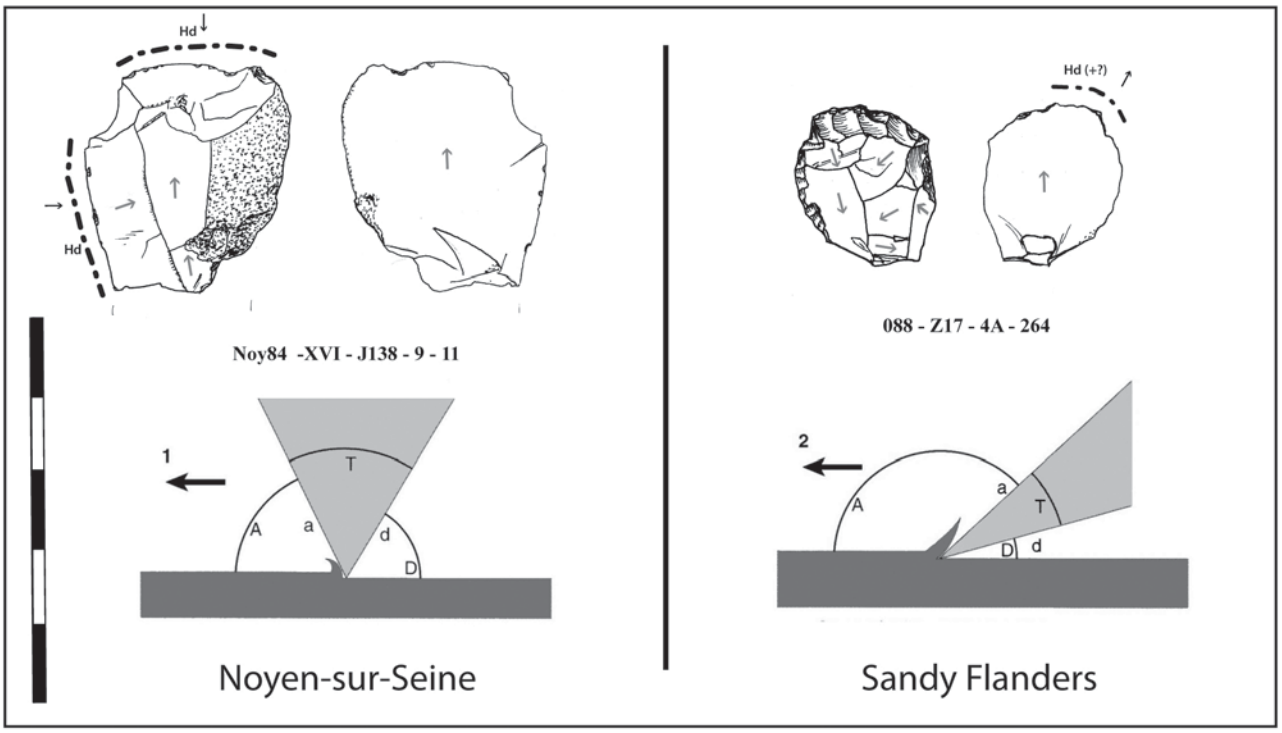

Fig. 16 – Noyen-sur-Seine and sites from Sandy Flanders. Technical contrasts in the scraping of skins (illustration of cutting types borrowed from B. Gassin).

percussion, other characteristics such as the location of the UZ coupled with the orientation and morphology of the polish seem to match patterns seen with the Belgian material. In the future, it may be necessary to consider the 'curved knife' as a tool in its own right, much like certain objects occasionally recognised in traditional typologies based on clear macroscopic traces (splintered pieces, strike-a-lights, or sickle elements).

Our results concerning the working of skins are also informative for this comparison. At both Doel and locus C17 of Verrebroek, the manner in which endscrapers were used (scraping skins with a positive-rake angle, as well as hafting) suggests a particular technical context also recognised in concentration C57-C58 of Verrebroek, although not part of this study. However, the situation is completely different at Noyen where skin working was more readily carried out using un-modified cutting edges with leading edge angles less than 90° (negative-rake angle). Once again, these functional differences (fig. 16) portray a variety of technical choices despite these tools being integrated within the same *chaîne opératoire*, in this case hideworking.

Finally, there remains the question of denticulated flakes. Their abundance at Noyen places these pieces at the centre of considerations concerning the different activities carried out on this site. It has already become possible to exclude their use on wood, contrarily to what has been proposed in the past (Mordant and Mordant, 1987). However, their precise function remains difficult to establish. This is especially relevant for questions concerning their significance in assemblages from the south of the Seine referred to as 'Sauveterrian with denticulates' by J. Hinout (1990). Even if we now know the layers from these sites to be systematically mixed, the possible existence of a specific technical facies remains plausible.

PATHS YET TO BE EXPLORED

This initial functional study of domestic tools from three early Holocene sites approached the material from several different angles. First from a general perspective, emphasizing the particular character of toolkits from this period, followed by a chrono-cultural perspective that documented the existence of discrete elements calling into question the apparent uniformity of the studied material.

The different functional attitudes identified remain to be explained. Furthermore, the numerous factors underlying these contrasts, and the influence of each, still remain difficult to evaluate. The sites compared were clearly discovered from varying contexts probably linked to different types of occupation: the diversity of remains and activities identified at Noyen most likely reflect a multi-functional riverbank occupation, while smaller loci in Sandy Flanders may correspond to occupations with more restricted, probably seasonal functions.

Furthermore, these three sites are far from being contemporaneous: the meander of the Seine at Noyen was occupied nearly 1,000 years after Verrebroek and the distance between the south of the Seine-et-Marne and

Belgium is 350km as the bird flies. The more reliable contexts in which work has recently been carried out in Picardy (Ducrocq, 2009) has brought to light a succession of cultural influences acting within the same territory and tend to show that the Early Mesolithic is far from being an entirely homogeneous and monolithic entity. The Paris Basin also experienced instances of northern, followed by eastern influence. These various influences, that we are only beginning to appreciate in all their complexity, suggest exchanges, loans, or even population displacements. Contributing to this difficulty is the fact that research has for some time now emphasised fairly local technical features forming part of much larger assemblages characterised by microliths. For example, the prismatic Montmorencian or Beaugencian tools from Northern France (Rozoy, 1978; Griselin et al., 2009; Griselin et al., this volume), to which can be added the well-known 'Rouffignac knives' from the Sauveterrian (Dujardin, 2009; Séara and Roncin, this volume).

Clearly it is not solely the functional study of these three different sites that will produce the answers to such complicated questions. However, the results presented here already highlight the role that domestic toolkits can play in palethnographic and paleohistoric debates currently taking place between Mesolithic researchers. One cannot help but conclude that despite their sometimes unattractive aspect, Mesolithic toolkits have not yet had their final word!

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NOTES

(1) This study was carried out as part of doctoral research at the University of Paris I under the direction of B. Valentin: *The Mesolithic of Northern France in its European context. A functional approach to stone tools*.

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MESOLITHIC PALETHNOGRAPHY

RESEARCH ON OPEN-AIR SITES BETWEEN LOIRE AND NECKAR

Proceedings from the international round-table meeting in Paris (November 26–27, 2010)

as part of sessions organised by the Société préhistorique française

Published under the direction of
Boris Valentin, Bénédicte Souffi, Thierry Ducrocq,
Jean-Pierre Fagnart, Frédéric Séara, Christian Verjux

'Mesolithic Palethnography…': part of this volume's title represents a sort of methodological and theoretical mission statement designed to convey the idea that research concerning the last hunter-collectors is today in desperate need of this type of insight. Since the beginning of the 1990s, a spectacular crop of occasionally vast open-air sites has emerged, one of the notable contributions of preventive archaeology. Several long-term excavations have also added to this exponentially increasing body of information that has now come to include a growing number of well-preserved sites that have allowed us to address palethnographic questions. This volume represents a first step towards revitalising Mesolithic research. Here we have focused on occupations from the 8th millennium cal BC, currently the best documented periods, and limited the scope to Northern France and certain neighbouring regions. The first part contains several preludes to monographs highlighting potential future studies as well as various patterns in the structuring of space and the location of camps. These, as well as other complementary discoveries, provide material for the second part of the volume dedicated to new data concerning the functional dynamics of Mesolithic camps.

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