

PRODUCTION AND FUNCTION OF BARBED POINTS FROM THE GUMELNIȚA TELL OF HÂRȘOVA (CONSTANȚA COUNTY)

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Production and function of barbed points from the Gumelnita tell of Hârșova (Constanța County)

(Abstract)

For the Neo-Eneolithic of the Romanian territory, barbed points (harpoons) represent the type of artifact belonging to the osseous materials industry on which we have most information. The lot we had at our disposal for this study, coming from the settlement from Hârșova-tell, is made up of 19 harpoons (coming from the diggings of the period 1989–2008), made of *Cervus elaphus* antler. In this study we have tried to identify how the raw material was obtained, turned into finished pieces (processing techniques), the economy of these finished pieces (the ways how they were used and their role in the economy), and finally the eventual repairs of the fractured pieces and their reintegration in the economy of the community. We also provide a series of experimental and ethnographic examples, in order to illustrate that the general denomination of ‘harpoon’ is incorrect, when extended to designate all the points with barbs. The ethnographic comparisons, which at first seemed to offer a key to understanding how these weapons were used, in the end complicate the problem by demonstrating that prey can be hunted in different ways and that the same weapon can be used with different hunting methods.

Hârșova-tell (Constanța County) lies on the current territory of the town, is approximately 13 m high and occupies an area of approx. 200 × 150 m, while the anthropic sediments are approximately 11.20 m thick (Plate I). As regards the prehistoric habitation levels, the oldest vestiges belong to the Boian and Hamangia cultures (first half of the 5th millennium B.C.), continuing with the cultures of Gumelnița (second half of the 5th millennium B.C.) and Cernavoda I (early 4th millennium B.C.).¹

The first archaeological researches were conducted in 1961², but, starting with 1993, the excavation strategy changed fundamentally³, by testing the informational level of the various types of stratigraphic units discovered during research so as to allow the elaboration of a sampling strategy appropriate for the purposes of the investigation. Given that the research is carried out in a tell, therefore a multilayer

settlement, with an extremely complicated stratigraphy, it mainly aimed to evaluate the content of the different SUs, which consisted of either indoor (rarely) or outdoor occupational remains. Screening of the sediments from other contexts was performed only in exceptional cases (occupational SUs inside dwellings, remains resulted from using combustion structures etc.). In this sense, the samples were, primarily, water sieved in screen columns in order to obtain significant data.

This is the reason why only those pieces from archaeological campaigns undertaken after 1993 have, in this study, a clear stratigraphic position, which could provide a true picture as to what their function was at that particular moment (fractured item abandoned among household wastes; an unfinished item, stored in order to be subsequently finished; a still usable harpoon coming from a burnt/not burnt dwelling, a passage area, habitation level etc.).

Description of the inventory

With the Gumelnița culture, harpoons are those artifacts made of hard animal material on which we have the most extensive data, especially due to their inventorization by E. Comșa⁴. A significant lot

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¹ Galbenu 1962, Popovici *et alii* 1992, Popovici-Rialland 1996.

² Galbenu 1962.

³ Popovici *et alii* 1998–2000, Randoin *et alii* 1998–2000.

⁴ Comșa 1986.

seems to be that of Căscioarele (Călărași County), where early archaeological campaigns revealed no less than 24 harpoons with bilateral barbs, asymmetrically disposed⁵, subsequent researches leading to the discovery of new harpoons, without specifying their number or morphological characteristics⁶. For the Gumelnița settlement, one unilateral harpoon with two barbs⁷ and 7 bilateral harpoons, with a varied morphology of barbs, are mentioned⁸. We can also mention the two harpoons from Cunești (Călărași County)⁹, the six harpoons from Vărăști (Călărași County)¹⁰ or the harpoon from Tangâru¹¹. The harpoons from the Luncavița settlement¹² or the 22 harpoons, of which two can be considered unfinished items, those from the settlement of Bordușani-Popină¹³, also belong to the Gumelnița culture.

At the settlement of Hârșova-tell we have identified 19 harpoons made from *Cervus elaphus* antler, of which 6 are intact, 9 are proximal fragments, 1 mesial fragment, 2 distal fragments and a mesially fractured harpoon, with an additional unfinished piece. The analyzed lot comes from the patrimony of the National Museum of Romanian History and that of Carsium Museum of Hârșova.

Morphology. Morphological criteria of establishing the various types of harpoons are quite numerous, but, unfortunately, no functional variety could be deduced from this typology. The only indicator, significant indeed, is suggested by the unilaterality or bilaterality of barbs, the number of barbs and then by their morphology. Thus, we have established two main groups: unilateral harpoons and bilateral harpoons.

Unilateral harpoons (type A)

- subtype A1 (with straight barbs)
- subtype A2 (with convex barbs) – 3 specimens
- subtype A3 (with sharp barbs)

Bilateral harpoons (type B)

- subtype B1 (with straight barbs)
- subtype B2 (with convex barbs) – 8 specimens
- subtype B3 (with sharp barbs) – 4 specimens

Indeterminate – 4 specimens

Subtype A2 – 3 specimens

The first specimen is distally broken (Plate II/1). It has a straight profile, probably made on a beam.

The proximal part has a cone-shaped morphology, with convergent straight-lined edges, circular section. Its ends are marked by two asymmetric protuberances, with convex edges which served for hafting. The mesial part section corresponds, in fact, to the general section of the harpoon, measured at the widest side. It is elliptical (massive shaft with elliptical section and convergent convex-sided barbs). The edges of the shaft are convex convergent. The barb morphology is defined by the character of the distal edge. The harpoon in question has a unique barb, with both edges convex. The execution technique is specific to harpoons, i.e. clearing barbs and protuberances by sawing (Plate II/6–7), but has some particular elements as well. The proximal end was sharpened by small chippings, around the entire circumference, without the later shaping (Plate II/5). On top of the upper edge of the barb, there are obvious signs of rather irregular longitudinal scraping, which may represent early point arranging action. On the opposite side, over a small portion, a quite deep transversal scraping was applied, meaning that there was a barb there that had fractured and the surface was refurbished to allow the further use of the harpoon. The distal extremity is fractured in saw teeth (Plate II/4), probably by usage.

The second harpoon is a mesial fragment (Plate II/2), with elliptical section and convex-concave shaft edges. The harpoon has a unique barb, slightly broken at the top, far from the shaft, with the distal edge convex and the proximal one concave. The item was intensely burnt, which destroyed any sign of shaping.

The last harpoon of this category has a strongly curved morphology and was made on an eye tine (Plate II/3). It has a proximal side with straight-lined convergent rims, a circular cross-section and a convex extremity. The two protuberances are triangular, with straight-concave rims and a convex-concave section. At mesial level, the rims are convex convergent, the section elliptical. The piece has two convex barbs, with convex-concave edges, far from the shaft. The distal part has convex convergent rims, a circular section, a slightly broken extremity. The morphometry of the specimen is as follows: length – 15.1 cm; average breadth – 1.6 cm; average thickness – 1.3 cm. At proximal level, the base was tapered by longitudinal scraping. Barbs are set at the far end of the shaft and preserve no trace of clearance, having been probably retouched from the inside. The distal part was also created by longitudinal, converging scraping, starting above the last barb. Also at distal

⁵ Ștefan 1925.

⁶ Dumitrescu 1965.

⁷ Dumitrescu 1924.

⁸ Dumitrescu 1925, fig. 66/20–26.

⁹ Popescu 1938.

¹⁰ Comșa 1986.

¹¹ Berciu 1935.

¹² Micu-Maillé 2006.

¹³ Mărgărit *et alii* 2010.

level, on the upper side, the item has a few short transversal incisions. Pearling was removed from the entire surface of the harpoon by polishing.

Subtype B2 – is represented by two intact and six fragmented specimens

The first specimen has a curved profile, the proximal side has convex convergent edges, a circular section, convex extremity (Plate III/1). The protuberances have straight-lined concave rims, a triangular morphology, convex-concave section. At mesial level, sides are rectilinear parallel, section is plano-convex, with 2 slightly asymmetric barbs, having convex-rectilinear edges. The distal side presents convex convergent edges, a plano-convex section, pointed end. The dimensions of the piece are: length – 13 cm, average breadth – 1.8 cm, average thickness – 1.2 cm. The ends were tapered by longitudinal scraping and barbs and protuberances were smoothed out by cutting.

The second specimen (Plate III/2) has the proximal part with slightly concave convergent sides, circular section, convex extremity. The mesial part presents convex-convergent sides with convex-concave section. Barbs are asymmetric, with both edges convex, far from the shaft. The distal part has convex-convergent edges, circular section, pointed end. Morphometrical data are: length of 12 cm, breadth and thickness of 1.4 cm. This harpoon is particular within the whole assemblage of Hârșova settlement, as it presents a hafting system which is entirely different from protrusions existing with the other harpoons. The proximal part is an extension of the shaft, being crafted by longitudinal scraping, around the circumference. The proximal end was smoothed out by polishing. Barbs are placed far from the shaft and do not preserve any trace of being smoothened. The distal part was also created by longitudinal convergent scraping, started from the last barb.

With the fractured specimens (Plate III/3–5), proximal parts have a conical morphology, with rectilinear convergent edges (3) and concave convergent edges (3). The end is pointed (1), convex (3), rectilinear horizontal (1) and slightly fractured (1). Protuberances are symmetric, with triangular (5) and rectangular (1) morphology. At this level, cross-section is convex-concave (2), plano-convex (2), rectangular (1) and biconvex (1). One of the items has bilateral incisions transversally disposed to the axis, parallel, with an asymmetric V-profile, possibly to ease up gripping. The mesial part has rectilinear parallel (2) and rectilinear convergent (4) edges, cross-sections are convex-concave (2),

plano-concave (2), biconvex (1) and indeterminate (1). Barbs are symmetric on one of the specimens and asymmetric on the others. The distal edge is convex (6) and the proximal is convex (3) or concave (3). The distal part is preserved on one specimen only, having biconvex cross-section, concave convergent edges and convex extremity.

One of the specimens (Plate IV/1), slightly fractured at distal level, has two rows of asymmetric barbs, very close to the shaft, that were made by cutting from both sides, at a very closed angle. In addition, the microscopic study has shown that, after cutting, the inside was polished, thus removing the traces resulted from clearance (Plate IV/7). The piece was entirely shaped on the lower side. The distal part has a *languette* fracture, on two planes, which appears to be of functional nature (Plate IV/4–5). On the lower side, just below the fracture, the initiation of a transversal incision is obvious (Plate IV/6), therefore we can advance the idea that sectioning the piece below the fracture and rearranging the point must have been intended, but the action was abandoned.

Subtype B3 – is represented by four specimens, of which three are intact and the fourth is fractured at proximal level.

As regards the first intact specimen (Plate IV/2), the proximal part has concave convergent edges, circular cross-section, convex extremity. Protuberances are triangular, with plano-convex cross-section, rectilinear concave edges. The mesial part has trapezoidal section, rectilinear convergent edges. It has two rows of asymmetric barbs, with rectangular morphology. The distal part has convex-convergent edges, cross-section is circular, the end is slightly rounded. The item is 13.9 cm long, its average width 1.4 cm, average thickness of 1.1 cm.

The second intact specimen was made entirely on beam, having strongly marked pearling (Plate IV/3). The proximal part has rectilinear convergent edges, rectangular cross-section, rectilinear horizontal extremity. Towards the end, there are two symmetric trapezoidal protuberances, with plano-convex section. Barbs are asymmetric, with rectilinear edges, close to the shaft. At distal level, edges have a rectilinear-convergent morphology and the extremity is rectilinear horizontal. Morphometric data are: length – 21.4 cm, average width – 2.3 cm, average thickness – 1.1 cm. The removal techniques applied on barbs and protuberances is identical to those present with the other specimens. The proximal part was prepared by

longitudinal scraping, the distal, by direct percussion. The specimen did not go through a finishing stage, therefore we have wondered if maybe it was still under production.

The third specimen was produced on an eye tine (Plate V/1). The proximal part has concave-convergent edges, slightly irregular extremity (Plate V/4), rectangular cross-section. Protuberances are symmetric, one with rectangular, the other with triangular morphology. At mesial level, edges are convex convergent, with rectangular cross-section. Barbs are symmetric, two of them being intact, the other two destroyed. The distal part has convex convergent edges, biconvex cross-section, irregular flattened end. It is 19 cm long; 2 cm wide and 1 cm thick, on the average. Barbs and protuberances of the proximal part were cleared by applying on them the typical method of successively deepened cutting by the sawing technique (Plate V/6). The point was shaped in continuation of barbs, by convergent longitudinal scraping (Plate V/5). The point is extremely peculiar as it has a pronouncedly deformed and dull aspect (Plate V/3).

The fractured specimen (Plate V/2) has barbs positioned far from the shaft and asymmetrically disposed, while cross-section is biconvex. The distal part has convergent convex edges, pointed end, circular cross-section. Cuts made to clear barbs are visible (Plate V/10) and so are the small longitudinal chippings performed towards the extremity, on the entire circumference, to sharpen the point (Plate V/9), which were overlapped by scraping. The proximal part has a saw teeth fracture, probably at the hefting level (Plate V/8).

Indeterminate

Four of the specimens fall into this category, but we cannot identify the morphology of barbs (Plate VI/1). Two are proximal fragments, which have not preserved any barbs, with the third one, distally fractured as well, traces of two symmetrically disposed barbs are still visible. At the proximal part, morphology is conical, with concave (2) and convex convergent edges (1), a slightly fractured (1), rectilinear (1) and convex (1) extremity. The two protuberances are symmetric, with a rectangular morphology – in the first two specimens, while, with the third, one of the protuberances is damaged and the other has a trapezoidal morphology.

This category also includes a distal fragment, which preserves the traces of two symmetric, entirely fractured barbs. At proximal level, a protuberance with rectangular morphology was preserved (the other seems not to have been there at

all). The piece is fractured longitudinally, therefore cross-section at this level remains unknown to us. At distal part, the point is preserved, having a tapered morphology.

Unfinished piece

By initiating the procedure of clearing the barbs, this piece illustrates the intention of turning it into a harpoon (Plate VI/2). The transversal debitage of the antler was done by indirect percussion, still visible at the proximal end, while, at the opposite extremity, a flexion fracture is apparent. Longitudinal debitage was done by percussion. On one side, the procedure of clearing the barbs was started, by sawing. We believe that the inappropriate dimensions of the blank (it was too short) for such a piece led to abandonment.

Conclusions

Getting the raw material

All harpoons found at the Hârșova-tell settlement were made from *Cervus elaphus* antler. We have wondered why this particular raw material was chosen to make a weapon, considering that, for instance, lithic weapons could inflict more serious injuries¹⁴. There may be several reasons to justify this option:

- mechanical properties of the antler – an optimal elasticity/hardness ratio¹⁵, which absorbs shocks better, thus making it resistant to impact;
- pieces made of hard animal material can be more easily repaired after fracturing;
- anatomical constraints of matter: in this case, a wider blank was needed as a pre-form of the future harpoon and the antler could provide such debitage flakes;
- last but not least, cultural options of the group.

The antler could be obtained by harvesting or a sub-product of hunting. According to experts, the shed antler was more suitable for manufacturing; as it was at its maximum growth, the area of cross-sections with compact tissue (used for processing) was much wider. Indeed, we were able to identify within the assemblage a predominance of remains from shed antlers, while the antler from the skull was rather sporadic. Supply is local, considering that in this settlement a lot of *Cervus elaphus* bones have been identified, being the second most hunted animal, after the boar¹⁶. The presence of the shed

¹⁴ Arndt-Newcomber 1986.

¹⁵ Guthrie 1983, Gregor 1985, Averbough, 2000.

¹⁶ Bălășescu *et alii* 2005.

antler meant organizing harvesting expeditions not far from the settlement, a short time after the deer had lost its antlers. The antler grows from April until July (when it reaches maximum calcification) and falls at the end of winter (in March for adult specimens)¹⁷. It is attacked by rodents, carnivores, even deer, then by invertebrates, short after it falls¹⁸; however, the Hârşova community needed it in good shape. We have already highlighted the particular resistance of antler weapons and tools, so renewal of the set of objects was done quite rarely and, as the set of manufactured antlers from Hârşova-tell illustrates, it was customary to have a surplus of raw material, in the form of rather morphologically and morphometrically standardized blanks. Therefore, we believe that expeditions were not very frequent; still there was neither a question of a “crisis” of raw matters, despite the seasonal availability of the antler.

Technique

Experts agree that prehistoric technology depends, first of all, on cultural attitudes subsumed under a fundamental experience, including individual and collective actions with consequences accumulated over time¹⁹. Regrouping all the elements resulted from a operation sequence – waste, unfinished pieces and finished objects – offers the key to analytically decoding manufacturing methods and techniques specific to a certain human group.

The study of debitage procedures has led us to the conclusion that, for harpoon manufacturing, flattened blanks were used, resulting from a transversal and longitudinal debitage of the matter block. Beams or parts of eye tines were used for these blanks, as, normally, obtaining a blank with a significant width to allow clearing of barbs was intended. Starting from debitage blocks (blanks, waste) and from finished pieces that preserve such signs, we have identified the following clearing procedures, possibly used to produce blanks for future harpoons: a transversal debitage subordinating a scheme of transformation by sectioning (by far, the most frequently used within the assemblage of Hârşova-tell settlement) and a longitudinal debitage, to which a scheme of transformation by bipartitioning subordinates. In the first case, the techniques used are: removal by direct percussion and removal by indirect percussion (attested on the unfinished piece), always associated either with a bending or a direct percussion – for final

separation, each of them leaving specific traces which allow diagnosing. With longitudinal debitage procedures, technique used is removal by indirect percussion (Plate VI/3).

For volume modification procedure (Plate VII) – namely clearing barbs and protuberances, the only identified technique was sawing. For the clearing of barbs, an operation which consists of progressively deepened incisions, alternatively, on both sides, the direction of the incisions determines the morphology of the future barbs. With barbs which are positioned far from the shaft, having a tapered morphology, the purpose was to create a space between barbs, by removing an approximately rectangular shape remnant. Thus, sawing is applied starting from three levels: the proximal edge of the first barb, the space between barbs and the distal edge of the next barb. The second procedure, which seems more adequate for convex-concave barbs, is to create two incisions by sawing, representing the distal edge of a barb and the proximal edge of the other one, both gradually deepened so that they reunite (technique present on the unfinished piece).

As regards surface modification procedures (arranging extremities), scraping was the most frequently used technique. It may be peripheral, thus obtaining a conical or bifacial end, in order to get a circular shape; points are cleared after barbs, especially those which are set in continuation of the distal edge of the last barb. Scraping can give the final shape of the object, being, sometimes, the only phase of shaping. The next technique, present with these procedures, is removal by direct percussion (small overlapped flakes), suitable both for clearing of the point and of the proximal extremity. With some specimens, these two techniques combine with polishing, applied on the entire surface of the piece, until the removal of pearling and retouching the surface.

The proximal part has two types of hafting. The first and most representative refers to the extremities provided with protrusions, which are made using the same technique as that of barbs; the second has a proximal part in continuation of the shaft, shaped through scraping. Ethnographic examples prove that these different morphologies of the proximal part do not necessarily depend on a fixed or mobile hafting and that²⁰, sometimes, these variations do not mean anything other than the search for optimal solutions to a problem²¹, such as finding a shape suitable for the various uses. In addition, none of these weapons, despite

¹⁷ Provenzano 2001.

¹⁸ Averbough 2000, 2005.

¹⁹ Lemonnier 1993, Dobres 1995, Luik-Maldre 2007.

²⁰ McClellan 1975.

²¹ Scheinsohn 2010.

the morphological variability, present any specific element that should allow us to ascertain their singularity, but, rather, we can only imagine an inventory of weaponry of the entire group.

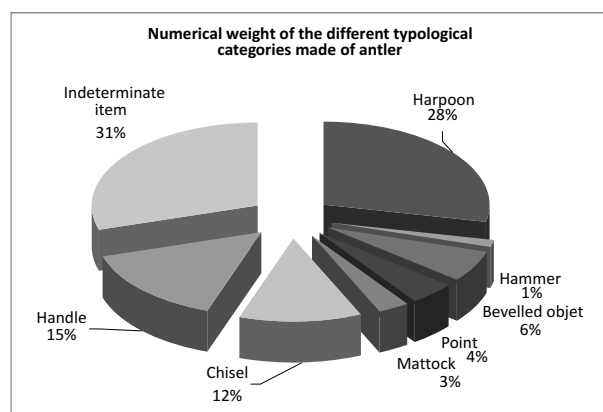
Production

It refers to the main types of tools present in an industry and how they reflect economic activities. Traditionally, professional literature has linked harpoons to fishing. Studies have shown that, along with hunting, fishing and clam harvesting were the main food resources of the community at Hârşova-tell. Among those species suitable for this type of fishing are catfish, zander, cyprinids and even carp, during spawning²².

Statistics show that the harpoon was the main manufactured typological category, made of deer antler, which offers us a picture of the position occupied within the community economic life. The advantages of this type of weapon are as follows: it remains well fixed after being thrust into the prey's body, by means of barbs, and, at the same time, it allows recovering the prey, by means of the haft attached to it, which may explain the Hârşova-tell community's preference to use it.

Table no. 1 – Numerical weight of the different typological categories made of antler

Typological categories	Number of items	Numerical weight
Harpoon	19	28%
Hammer	1	2%
Bevelled objet	4	6%
Point	3	4%
Mattock	2	3%
Chisel	8	12%
Handle	10	15%
Indeterminate item	20	30%



The study of the assemblage aimed to integrate into an economic cycle, including manufacturing, using and maintenance. In this sense, it is of great importance to highlight an activity of weapon maintenance, therefore of restoration after fracturing.

When an object is deteriorated, it can be recovered or abandoned, if the type of fracture makes restoration impossible. Recovery can be achieved in two ways²³:

- Repairing, if the tool can be reconditioned, preserving its original shape and function.
- Recycling, if its original shape and function cannot be preserved.

As for the harpoons found at the settlement of Hârşova-tell, we have not identified a systematic preoccupation for reconditioning fractured pieces. The only examples, falling into the first category – repairing –, are a harpoon of A2 subtype, whose surface was retouched by scraping at the level of the fractured barb, and a harpoon of B2 subtype, which has a functional *languette* fracture, at distal level, where there was an attempt to repair the point, by removing the fractured surface, but the operation was not finished.

Hypothetical function

In the present primitive world, the harpoon is used both for fishing (Amerindians, Eskimos), and for catching aquatic birds and even mammals, while crossing a water (Eskimos), pinnipeds (Patagonia)²⁴ or even arboreal animals – monkeys (Agra population of the Philippines)²⁵. We might be reproached that such a comparison (Neolithic – primitive world) could be exaggerated, considering the differences in time and space. The situation is completely different, if we start from the fact that the harpoon accompanies the entire evolution of modern man, being “invented” by the first *Homo sapiens sapiens*²⁶, and is still used in various ecological environments (Arctic areas, Australia, South and North Americas, the Pacific).

The experimental studies conducted by Pokines and Krupa²⁷ prove extremely useful in identifying certain usages in order to verify the functionality of harpoons, studies that have proven the precision and resistance of this weapon. With the specimens of Hârşova-tell settlement, fractures are especially present at distal level, perhaps because the point remained in the prey and the haft with the hunter.

²³ Goutas 2008.

²⁴ Scheinsohn 2010.

²⁵ Bion Griffin 1997.

²⁶ Yellen *et alii* 1995.

²⁷ Pokines-Krupa 1997.

²² Bălăşescu *et alii* 2005.

Furthermore, other experiments carried out by M. Pétillon²⁸ have shown that nature and position of impact fractures are specific to a certain type of hafting – fixed or movable.

As regards the analyzed set, proximal extremity presents a tamping, with small cavities resulted from matter losses, covered by polish, which proves prolonged usage. Microscopic study has revealed series of micro-striation, which seem to have resulted from repeated irregular friction, hence the assumption of a movable hafting system (Plate V/4).

The distal end is, in most of the cases, fractured *en languette* – oblique fracture, developed towards the distal extremity, specific to projectiles – but the saw teeth fracture is also present. These two types are seen by experts as being of functional nature, belonging to flexion fractures²⁹. In one of the specimens we have identified a principal fracture, accompanied by a second, shorter one, placed on the opposite side (Plate IV/4–5), resulting, according to experimental studies³⁰, from fracturing of the distal part in several fragments, at the moment of impact. Another type of change in the distal extremity, after use, is characterized by a bifacial tamping, which gave the irregular aspect of the extremity (Plate V/3). In this case, the piece kept being used without being repaired, hence the *emoussé* aspect (which supports our assertion

regarding the lack of systematic preoccupation of maintaining the equipment).

This study, along with that conducted on the set of harpoons discovered at the Borduşani–Popină settlement (Ialomiţa County)³¹, raises the issue of the generic name of harpoon, covering the entire range of barbed points, an issue approached by other authors as well³². It is the ethnographic comparisons, which initially seemed to offer the key to understanding the usage of these weapons, that have complicated the debates, proving that an animal could be taken down in various manners and the same weapon could be used in various ways. We are still in the debating stage, as we cannot make a functional separation of the different types of barbed points.

Archaeological and cultural context

Since the beginning of the article, we have pointed out the inequality of information, a situation that was generated by older excavations, where the principle of elevation passes was applied. Thus, for pieces found in campaigns prior to 1993, we were not able to identify the context of the abandonment. Moreover, with some of the pieces at Carsium Museum of Hârşova, the information is imperfect. Percentage data show that harpoons predominate mainly in contexts related to dwellings or habitation levels, illustrating that they were still used, at that moment.

Table no. 2 – *Arheological context of harpoons from the Gumelniţa tell of Hârşova*

No.	Morphological type	Year	Area	Layer	SU	Square	Arheological context
1	Subtype A2	1997	β	10	5345	L5	Habitation level
2		1999	β	13	3970	M8	Burnt dwelling
3		MINAC (no. 308)	passim	–	–	–	–
4	Subtype B2	1991	β	–	–	F3	MINAC 39413
5		MINAC (no. 309)	passim	–	–	–	–
6		1996	β	10	3067	L4	MINAC 39423
7		1992	C	–	–	D2	MINAC 39406
8		2001	–	13	11836	L8	Burnt dwelling
9		1996	β	4	–	–	Stratigraphic profile
10		2003	β	8	10007	F5	Habitation level
11		1999	β	3	6371	F3	Habitation level
12		1989	β	–	–	H4–I4	MINAC 39410
13	Subtype B3	1990	β	–	–	F2	MINAC 39516
14		2008	β	2	7514	E2	Passage area
15		1996	β	9	3233	K5	Habitation level
16	Indeterminate	1999	β	13	3970	M8	Burnt dwelling
17		2003	–	10	10956	M4	Habitation level
18		1989	β	–	–	K4	–
19		1996	β	13	3594	M8	Dwelling

²⁸ Pétillon 2008.

²⁹ Legrand 2000, Pétillon 2006.

³⁰ Stodiek 2000.

³¹ Mărgărit *et alii* 2010.

³² Rust 1943, Clark 1975, Feustel 1980, Weniger 2000, Pétillon, 2008.

Out of the lot under analysis, except one (piece no. 7 – subtype B2 – coming from a Boian cultural context), all the items were discovered in contexts belonging to Gumelnița culture, A2 stage. This situation brings to light the possibility that at least this subtype may have been used along the evolution of both of these cultures.

As far as the items attributed to the Gumelnița A2 stage are concerned (18 pieces), 11 have a definite stratigraphic context, which allows for some preliminary observations. So, 4 pieces were discovered in the destruction levels belonging to dwellings 50 and 58 (burnt dwellings) and in the destruction level of dwelling no. 44 – a dwelling which was not destroyed by fire, but was abandoned. All the other items discussed here were found in occupational levels external to the dwellings, only one being discovered in a passage area (piece no. 14). Somewhat surprising is also the fact that for the latter, we noticed both the presence of fragmentary, abandoned pieces, which could no longer be used, and also the presence of some items that, at least apparently, could still be used. It is difficult to advance definite conclusions concerning this situation.

In the case of the items presenting burning marks (no. 2, 8, 9, 11, 16 and 17), which is sometimes strong, it can be noticed that these marks could be due to the fact that they were discovered in the destruction levels of dwellings no. 50 and 58 (no. 2, 8 and 16), which are burnt dwellings. It is obvious that the items burnt when the respective dwellings burnt as well. The items no. 9, 11 and 17 come from external occupational levels and their preservation condition under these circumstances allows for some further observations. They may be suggested by the context provided by the item no. 17, which was discovered in a stratigraphic unit in which burnt adobe (in a significant proportion) was also found along with other anthropic elements. This situation suggests the fact that the respective sediment may have come from a built structure which caught fire and whose remains were, for a reason that would be hard to mention here, deposited in the respective area (so, we can presume that the adobe burnt along with the dwelling it was part of). So, there is a possibility for these items to have come from contexts that ended up in this way. The situation is not exceptional considering the fact that during the diggings, on numerous occasions, it was possible to note, in occupational levels external to the dwellings, the existence of certain materials coming from the construction of different structures or coming from demolitions, leveling, etc.

If we look at the discovery context of the different items, according to their typological classification, a few more observations are necessary. Even though the items that make up this lot are not very numerous, one can say that there is a significant possibility that the subtype B2 (amounting to a frequency of 38.8% in the total of the items attributable to Gumelnița cultural context) may be considered the type used most by the community from Hârșova. In point of statistic frequency, we can notice that the following in this hierarchy are subtype B3 – 22.2% and A2 – 16.6%. Even though these numbers may change in time, we find the difference between them significant in point of its general data. Although during this stage of our analysis we do not aim to advance hypotheses concerning the eventual chronological evolution of the production of these items or concerning their value from the viewpoint of the peculiarities of each community in point of their production and use, we must highlight the fact that these possibilities exist and in the future they should be checked out.

In the same sense, out of the analysis of the data provided by the typological determinations, in correlation to the stratigraphic situations, what draws our attention is the fact that in the case of the items discovered respectively in dwellings and dwelling remains, there is a certain structuring. Here, we refer to the fact that in the case of the dwelling no. 50, two items were found. Unfortunately, only one of them (no. 2) was possible to determine with a higher degree of certainty from a typological viewpoint, namely the sub-type A2, the other one being undeterminable (no. 16). In the debris of the dwelling no. 58, where just one item was discovered (no. 8), this item could be attributed to the sub-variant B2. It is possible for this situation to be relevant, especially if we consider the possibility that the existence of the typological variants might express a certain functional specialization of the types determined and implicitly of the inhabitants of the respective dwellings. In exchange, the presence of all the three typological sub-types signaled within the external occupational levels can only be normal within this context, highlighting the fact that they were used at the same time by all the members of this community.

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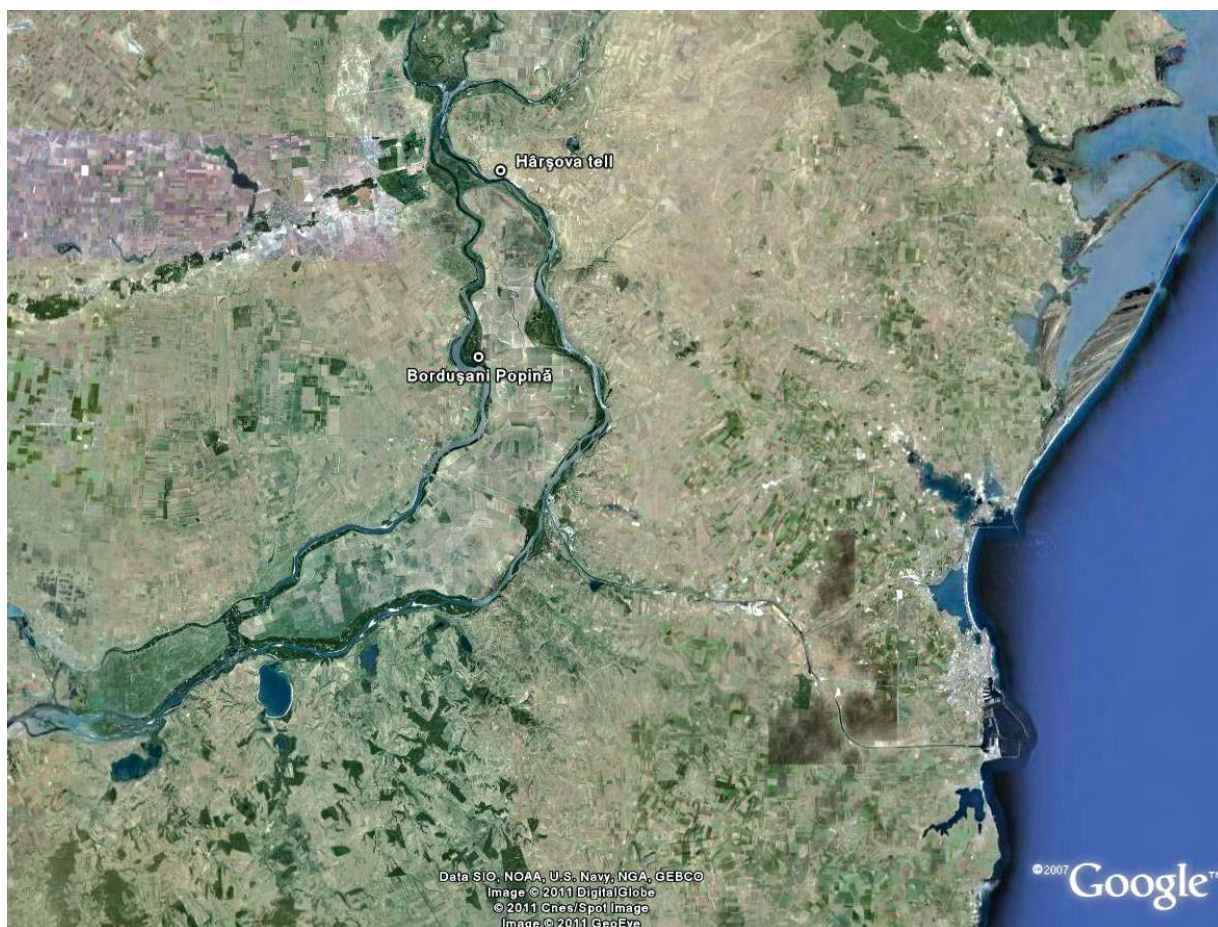


Plate I: Geographic setting of Hârșova-tell station (photo from Google Earth).

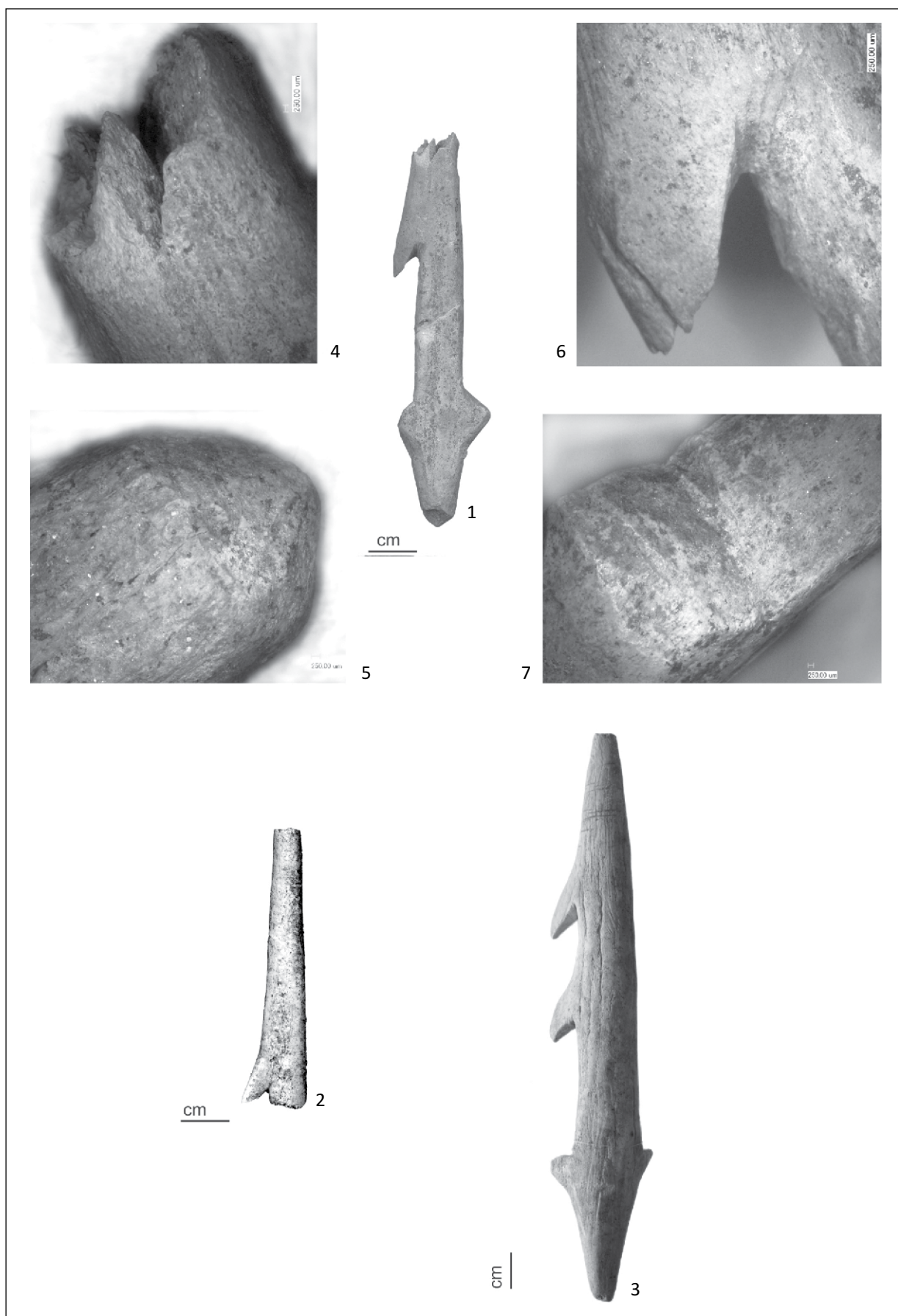


Plate II: 1, 2, 3 – subtype A2 harpoons; 4 – extremity fractured in saw teeth (20x), 5 – proximal extremity prepared by direct percussion (30x), 6 – barb preparing technique (20x); 7 – protuberances clearing technique (20x).

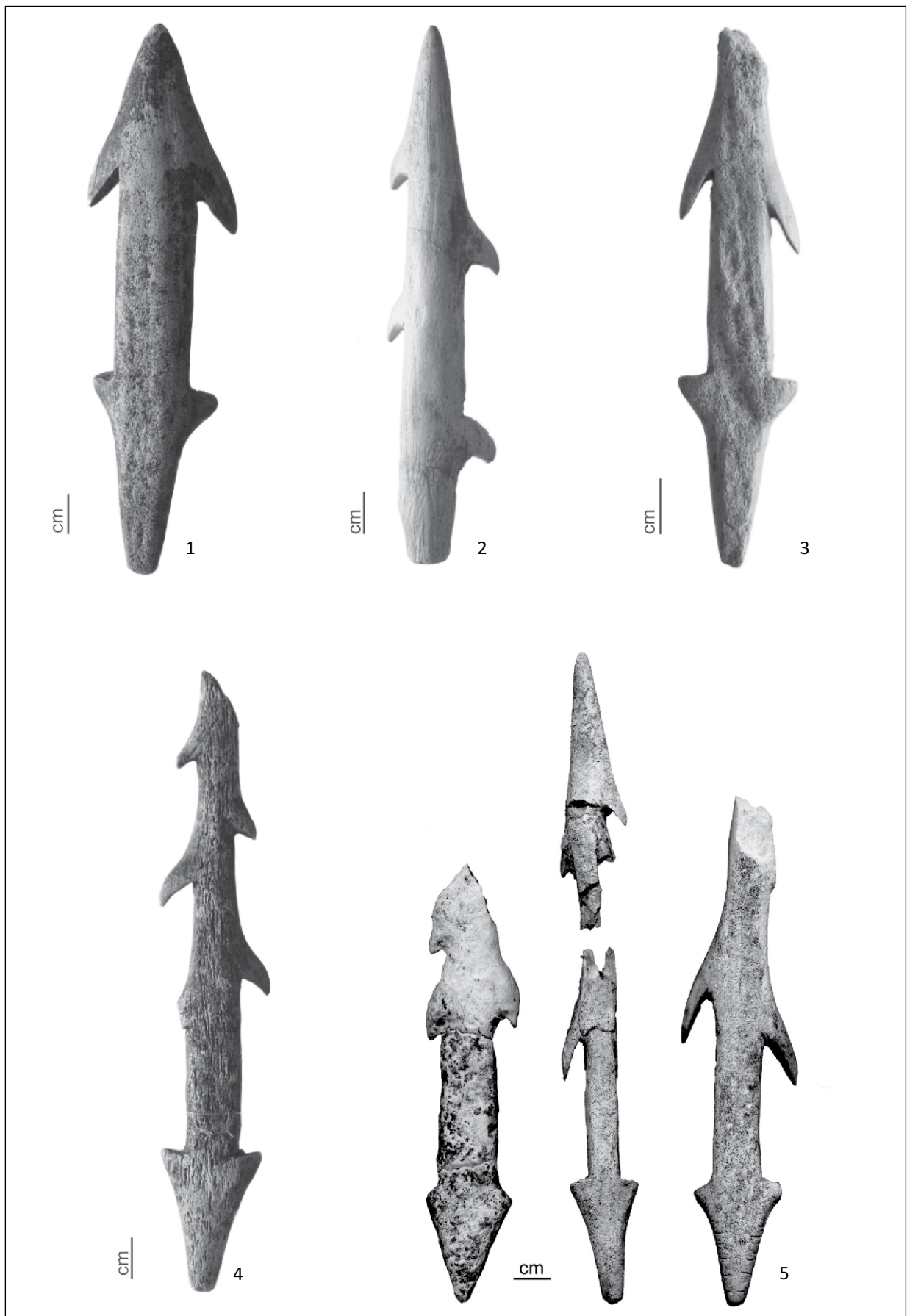


Plate III: subtype B2 harpoons.

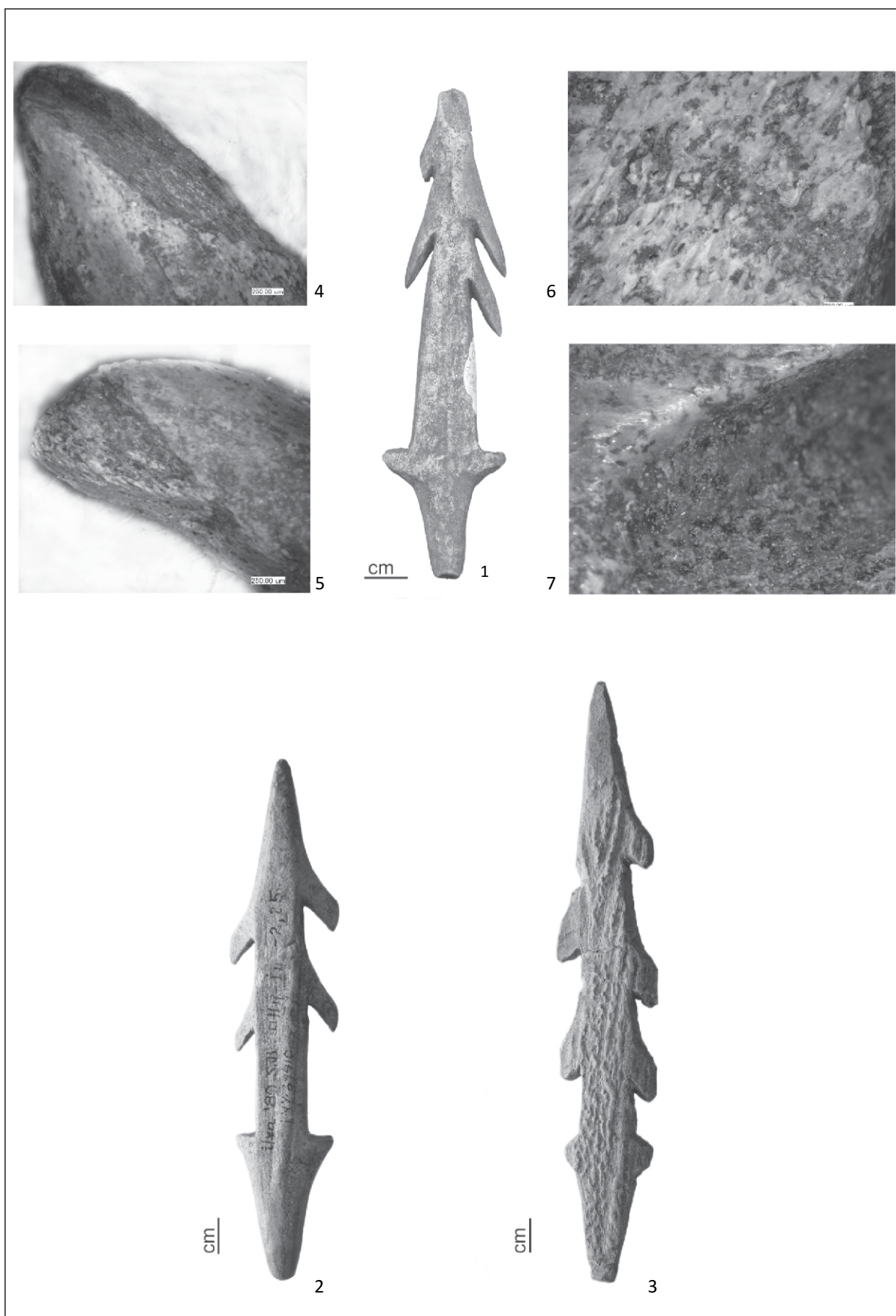


Plate IV: 1 – subtype B2 harpoons; 2, 3 – subtype B3 harpoons; 4, 5 – distal extremity fractured *en languette* (20x), 6 – incision to clear the fractured extremity (50x); 7 – barb preparing technique (50x).

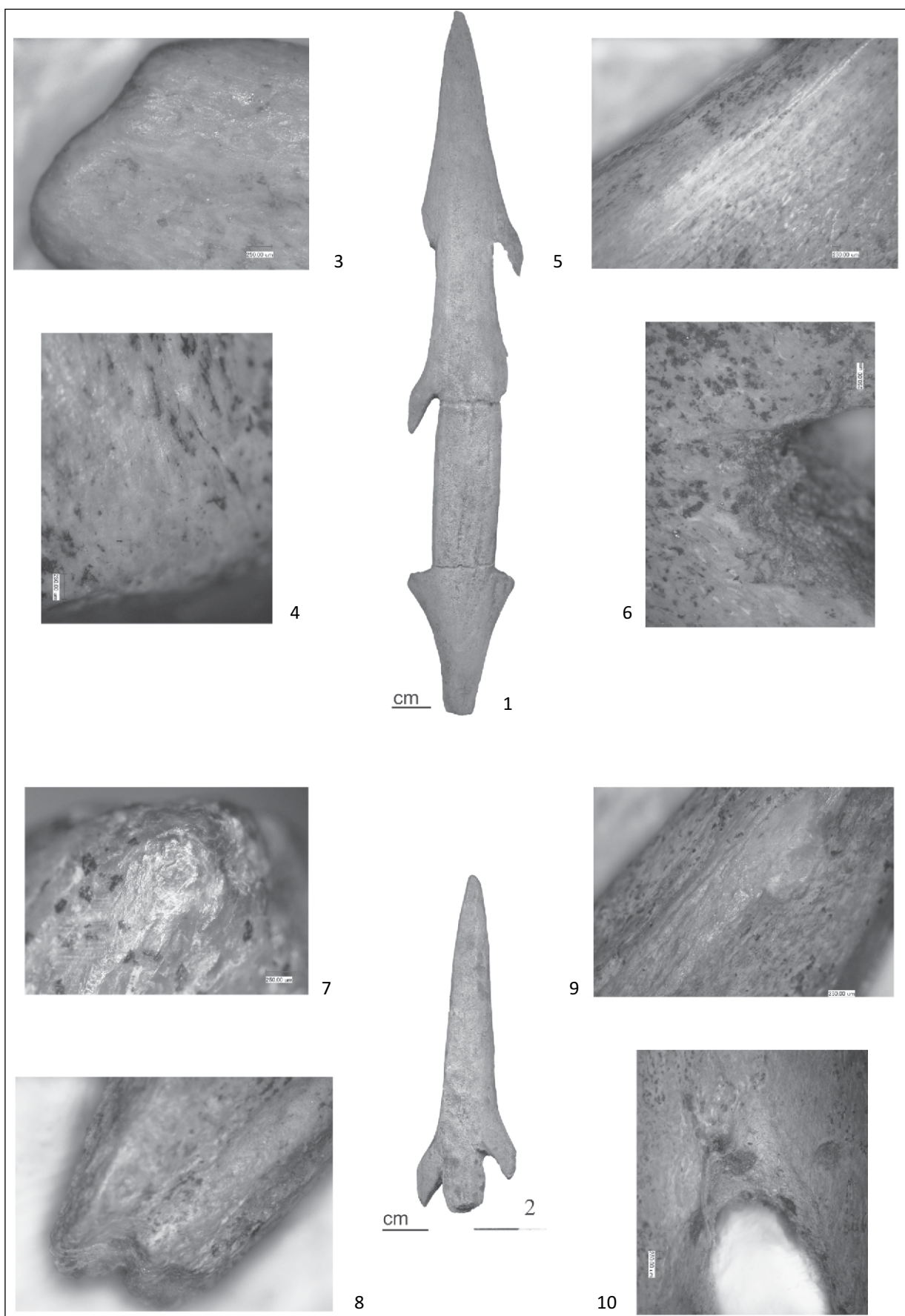


Plate V: 1, 2 – subtype B3 harpoons; 3 – distal extremity (100x); 4 – preparation of proximal extremity (50x); 5, 9 – longitudinal scraping for point arrangement (30x, 50x); 6, 10 – barb clearing technique (50x, 30x); 7 – pronouncedly *emoussé* point, due to usage (150x); 8 – proximal extremity fractured in saw teeth (30x).

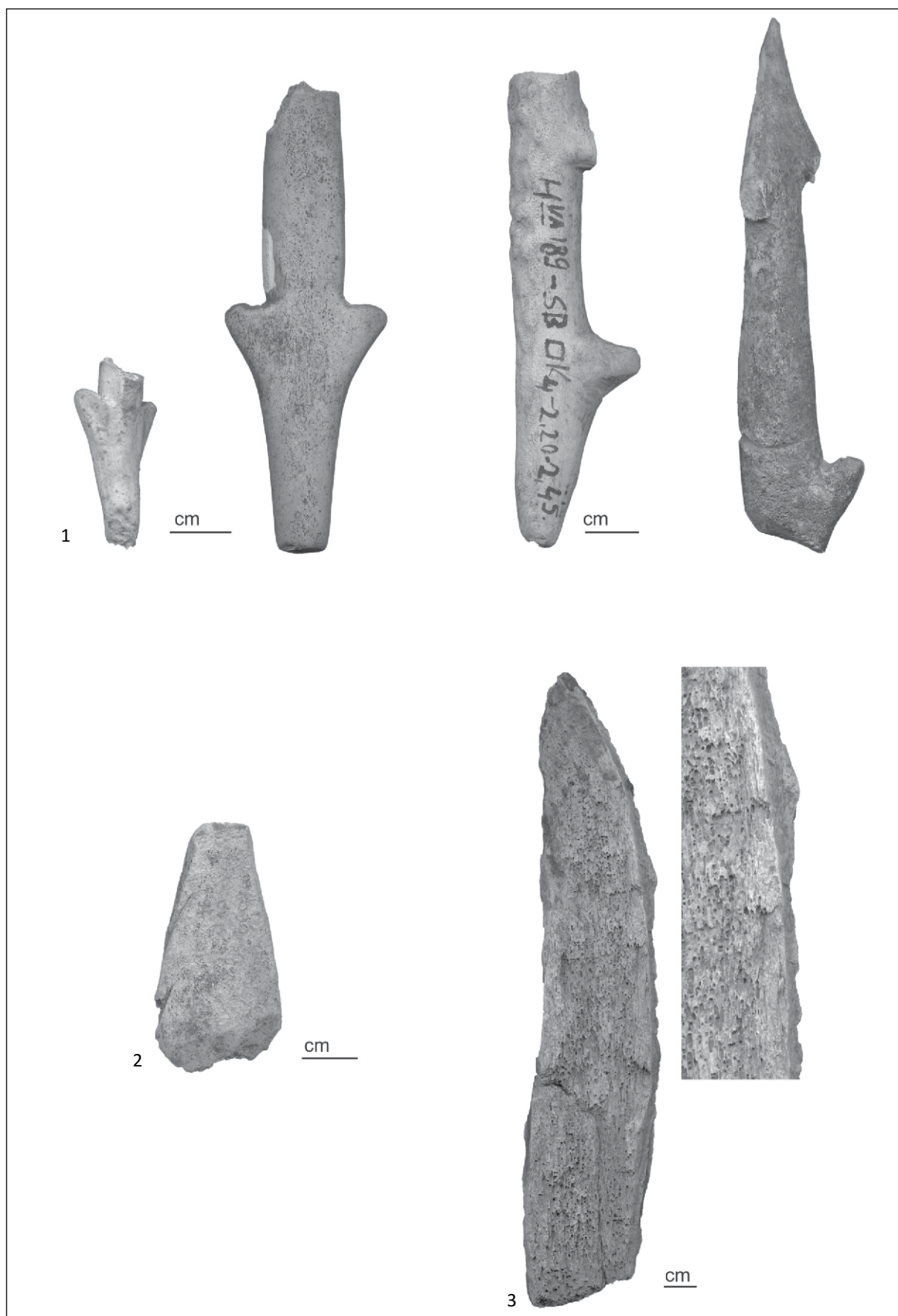


Plate VI: 1 – indeterminate harpoons in terms of morphology; 2 – preform, 3 – longitudinal blank truncated by indirect percussion.

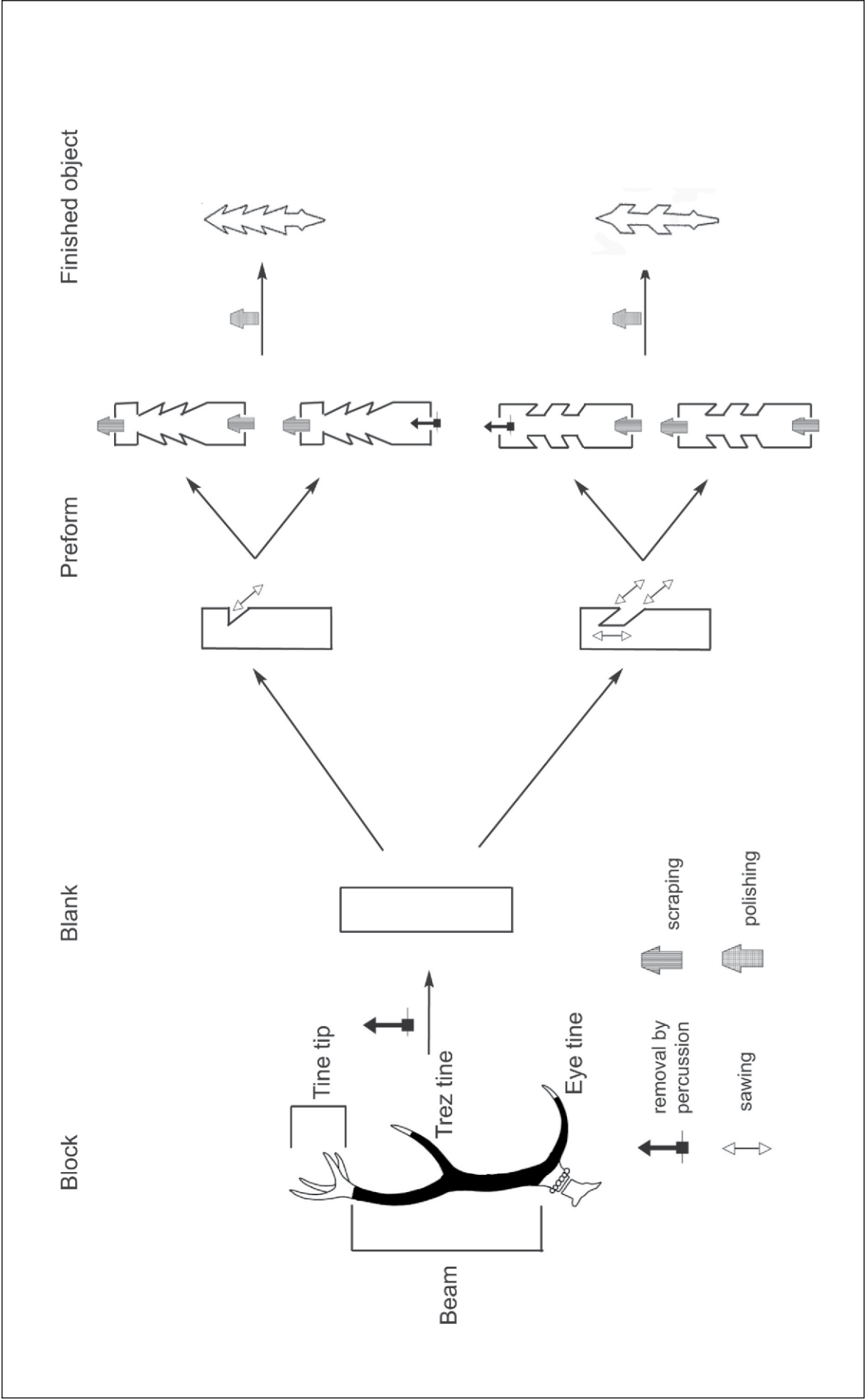


Plate VII: Methods of producing harpoons at Hârşova-tell settlement (we have used the terminology proposed by A. Averbough, 2000).