The lithic collection from the Chalcolithic *tell* of Geangoeşti (Dâmboviţa County)

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Abstract: *The article presents the technological and typological analysis of the knapped lithic material discovered during the 1960 research campaigns in the Chalcolithic tell of Geangoeşti (Dâmbovița County). The main raw material in use was the yellowish-beige, white-spotted flint, strongly resembling the Balkan flint varieties reported south of the Danube. The site provided evidence of household construction, ceramics, anthropomorphic and zoomorphic figurines, adornment items, and faunal remains, along with fragmented ground stone axes and chisels belongs to the Gumelnița-Kodjadermen-Karanovo VI culture. The studied lithic collection was stored in The Princely Court National Museum, in easily identifiable boxes and fairly good conditions; nevertheless, about 30% of the lithic implements available for study in the '70s, according to the published information, are now missing. Also, the assemblage lacks/contains too few of several groups of debitage products, which is the result of either selecting the lithic material during the excavation stages, or failing to include in the research plan specialized areas of the site.*

Rezumat: *Articolul prezintă analiza tehno-tipologică a utilajului litic cioplit descoperit în timpul campaniei din anul 1960 în tell-ul eneolitic de la Geangoești (jud. Dâmbovița). Situl a oferit dovada unor construcții de suprafață, vase ceramice, figurine antropomorfe și zoomorfe, elemente de podoabă, dar și prezenței unor dăltițe și topoare din piatră șlefuită tipice culturii Gumelnița-Kodjadermen-Karanovo VI. Din punct de vedere al materiei prime, lotul litic este format preponderent din silex de culoare bej-gălbui cu puncte albe, asemănător varietății de silex balcanic aflat în depozitele geologice de la sudul Dunării. Cu ocazia reevaluării tehno-tipologice, s-a constatat faptul că din eşantionul litic lipsesc cca. 30% din piesele menţionate de analiza efectuată în 1970. De asemenea, o altă constatare referitoare la caracterul colecţiei vizează faptul că, în ansamblul studiat, anumite grupe tehnologice sunt foarte slab reprezentate, ceea ce ar putea fi rezultatul fie al selecției materialului în timpul săpăturii, fie al trasării secțiunilor în afara unor zone de activitate specifică.*

Keywords: *Geangoeşti, Gumelnița culture, lithic collection, technology, typology.*
Cuvinte cheie: *Geangoești, Gumelnița, utilaj litic, tehnologie, tipologie.*

◈ Introduction

The site (fig. 1) lies on the Dâmbovița River floodplain, 2 km away from the river, at the base of the high terrace, in a contact area between Târgoviște High Plain and Ialomița Carpathian Hills. In 1960, G. Mihăiescu and R. Gioglovan opened several trenches on a total surface of 252 square meters. Decades later, few data on archaeological stratigraphy and complexes were partially published (G. Mihăiescu, A. Ilie 2004; A. Ilie 2007), as well as several articles on copper items (A. Ilie, I. Neaga 2010), ceramic vessels (A. Ilie, F. Dumitru 2008, 2010), lithic implements (A. Păunescu 1971, p. 177), adornment objects and anthropomorphic figurines (C. Boruga 1969; A. Ilie 2011). The 1.90 m high stratigraphic profile enclosed five occupational layers considered as belonging to B1 and A2 Gumelnița stages (A. Păun 2004).

As for all old excavations, the possibility of repositioning most of the archaeological material within its precise context is indeed remote. Several of the archive documents available[†] revealed quite a lot of inconsistencies on properly defining the archaeological content of various occupational layers. For the most part, the knapped lithic material, which constitutes the subject of our paper, fails in giving hints on its exact context of recovery. Moreover, almost 30% of the assemblage previously published (A. Păunescu 1971) is no longer available for study.

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[†] G. Mihăiescu kindly offered us the possibility of consulting the following documents: *The Excavation Record* (1960), *Profiles depiction* (1960), and *Geangoești Excavations* (1960); we also consulted *The Preliminary Report* (1960) (The 5th Dossier from the CNMCD Târgoviște Archives).

◈ Lithic analysis

The reddish-brown, coarse-grained flint and the yellowish-beige, white-spotted, matte flint are the preferentially used raw materials, accounting for over 80% of the collection; the latter heavily resembles the Balkan flint variety, reportedly encountered, as a primary source, in sites along the Danube (M. Gurova 2012), some 300 km away from Geangoești. Also, other varieties, such as dark grey, dark brown and grayish-blue flint occur in much smaller amounts.

The assemblage (tab. 1) consists mainly of retouched lithic items, laminar blanks, and only several fragments, flakes, and rejuvenation products. Among the latter, one could find cortical products, one crested blade, and one flake with multiple removal negatives on the dorsal surface, probably resulting from the debitage surface renewal (fig. 3/4, 5). Although the exhausted and discarded cores are missing from the collection, some of them must have had at least two opposite striking platforms useable at some point, judging by the initiation point of several removal negatives on the dorsal surface of laminar blanks. Also, 40-50 mm long cortical retouched products, such as distal endscrapers, retouched and truncated blades indicate the exploitation of medium-sized flint pebbles or blocks.

Raw material	Flakes/ fragments	Rejuvenation products	Blades	Retouched blades	Endscrapers/ truncations	Burins	Bifacial points/ pointed laminar items	Flint hammers/ others	Total
Balkan flint	2/5	4	28	21	20/14	-	3/5	3	***103***
Others	2/2	-	3	-	3/4	1	-	-/1	***18***
Total	***4/7***	***4***	***31***	***21***	***23/18***	***1***	***3/5***	***3/1***	***121***

Tab. 1. Geangoești – the knapped lithic collection.
Geangoești – colecția de material litic cioplit.

Laminar blanks are exclusively represented by proximal, median, and several distal blades (fig. 2/2-6, 10). Most of them apparently resulted from the exploitation of single striking platform cores, with frontal, rather flat debitage surface, judging by the rectilinear profile of the blanks, and also from quite advanced stages of the reduction process, considering the predominant trapezoidal cross-section. Proximal specimens show flat butts and scarred percussion bulbs, as hints of probable hard-hammer percussion. While complete blades are missing, the length values of the fragmented items range between 30 mm and 40 mm, with width values of 14-20 mm/25-30 mm, and thickness values of 3-7 mm.

The tools category comprises especially median and distal items (chart 1) of several types – retouched blades, endscrapers, truncation, bifacial points and one burin. The retouched blades (fig. 2/1, 7-9, 11) include marginally retouched specimens, with one or both long edges modified through partial or continuous direct retouch, and pointed blades, having the distal part shaped by the convergence of the retouched lateral sides (fig. 7/3, 4). They are often rectilinear specimens, with trapezoidal cross-section, flat butts and scarred percussion bulbs; also, their dorsal side is only rarely marked by removal negatives with opposite ends initiation. The type of retouch most frequently used is the direct, semi-steep one, partial or continuous, sometimes bilateral, while the inverse retouch remains an isolated option, apparently used when the need for recycling a broken tool or an active edge arose. While complete retouched blades can be up to 45-50, even 82 mm long, the average fragmented specimen is 31-36 mm long, 13-19 mm/22-25 mm wide, and 4-7 mm thick.

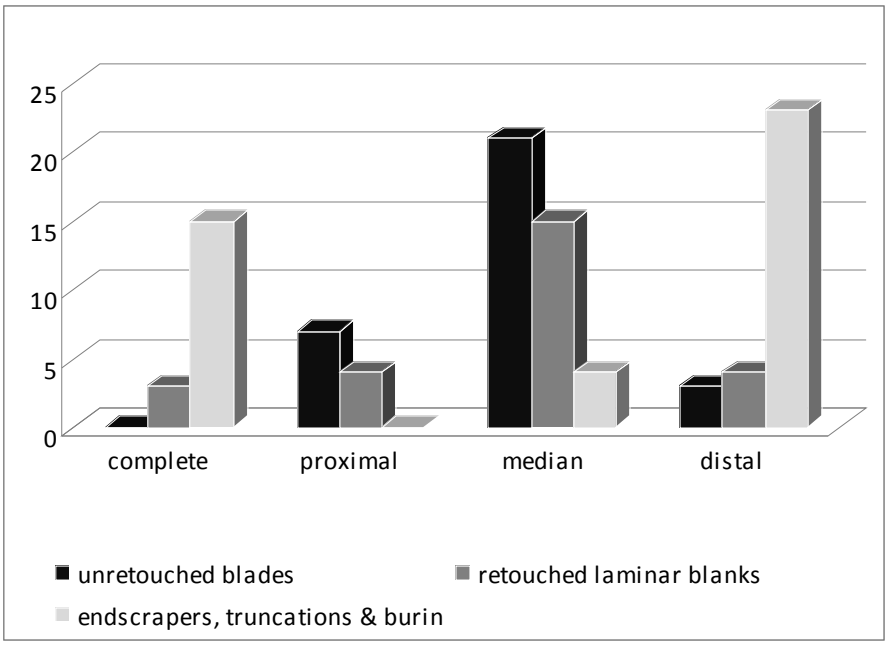


Chart 1. Geangoești – representation of fragmented laminar items.
Geangoești: reprezentarea pieselor laminare fragmentate.

Endscrapers (fig. 5) reveal a wide spectrum of technological options adopted as a response to hafting or recycling requirements: their proximal end can be pointed, as the two lateral retouched sides of the blank converge, truncated, or turned into a second endscraper front. The blanks are mostly rectilinear blades, resulting from exploiting single striking platform cores; they are rarely directly and semi-steeply retouched, with trapezoidal cross-section, flat butts, and scarred percussion bulbs. The complete specimens form two length categories – 51-56 mm and 72-80 mm, with uniform width – 21-30 mm and thickness – 6-9 mm values; the distal items are usually 28-35 mm long, 15-22 mm wide, and 5-7 mm thick. Both complete and distal specimens show various types of use-wear and fractures, most commonly small irregular removals from the long edges, exfoliating marks, and snap fractures. Occasionally, the working distal edge of the tools is incomplete, due to accidental blows. Isolated gloss patches occur infrequently on the dorsal side of the tools.

The 51 mm long, 26 mm wide and 9 mm thick single dihedral burin in the collection is made of an equally single patinated, spotted, blue-grey type of flint of unknown origin; the tool exhibits three laterally positioned burin spalls negatives, one of which has a hinged termination. In many ways, i.e. the morphology of the blanks, the snap fractures, the frequency and type of retouch applied to the long edges, truncated blades (fig. 4/4, 7-11) are similar to endscrapers. They are 32-42 mm long, 17-28 mm wide, and 5-7 mm thick; although complete items can reach up to 58-66 mm of length, this is not relevant on the size of the favored laminar blanks, since some distal items are 66 mm and even 88 mm long. All in all, the laminar blanks, the marginally retouched blades and the truncated ones come from a common group of intended debitage products of closely related morphology and size, except for the endscrapers, for which the blanks are constantly selected from a group of slightly wider and thicker blades.

The bifacial points (fig. 6) are straight-base, triangular items of good quality, homogenous dark-grey/yellowish-beige flint. According to their size values, the points represent a highly standardized production of weaponry elements, with roughly the same appearance: 58-61 mm long, 24-28 mm wide and 5-6 mm thick at midsection, and weighing 8-9 grams. The largest value range is to be found in the width of the points' base – 29-35 mm. When considered as weaponry elements, especially arrow tips, and judging from their weight, the bifacial points, as well as the two, 5-6 grams weighing points (fig. 7/1, 2) could have equipped large, powerful bows, with draw strength of 82.75 lb (around 37 kg, www.convertunits.com) and even more (S. Dev, F. Riede 2012, p. 43). Still, there is no apparent projectile fracture to be held responsible for their discard, as only a small accidental fracture of the base of a bifacial point (fig. 6/1) remains visible.

Aside from the snap bending fracture, the exfoliating marks, and the small, irregular removals from the long edges, all of them nearly omnipresent on retouched and unretouched specimens, other macroscopic use-wear types include edge rounding and patches of unevenly distributed gloss; they both involve only a small part of the retouched (9 items) and unretouched blades (12 items) of various lengths, with width values of 13-19 mm/25-30 mm and thickness values of 3-8 mm.

◈ Discussion

The context and status of the lithic assemblage from Geangoești reveal an awkward situation, in which the conclusions drawn from the technological and typological analysis might illustrate an incomplete reality.

First, the small number of knapped lithic items analyzed (121) is hardly suitable for obtaining a comprehensive image on the lithic economy of a Gumelnița settlement; given the existence of a *tell*-type settlement, with multiple layers of human occupation, and also multiple types of archaeological contexts, the assemblage is drastically underrepresented. Moreover, the recognition of technological and typological categories reveals also a weak representation or even absence of flakes, chips, rejuvenation products, cores, and flint axes (*sensu* F. Klimscha 2010). Even if the quasi-absence of secondary debitage products can be attributed to various research flaws (absence of wet sieving, use of heavy-duty tools, intentional selection of artifacts), the small number of polished adzes and chisels/hoes, and the complete lack of cores and flint axes could tell a different story, that of a site with specialized areas of activity and discard. Some of these areas might have been ignored by former researches, hence the lack of certain kind of lithic implements.

Another, and probably the biggest obstacle in refining the technological and typological conclusions with a hint at spatial and preliminary functional aspects is the loss of data regarding the exact archaeological context of the discovery of individual lithic implements. The spatial scatter of lithics within complex contextual situations, such as household interior and exterior space, hearths, pits, occupational/rubble layers, etc., could have proved important in interpreting their morphology, formal appearance, interrelations with other types of artifacts, and state of preservation.

◈ References

C. Boruga 1969 — Plastica antropomorfă gumelniţeană de la Geangoeşti, *Valachica*, I, p. 215-226.

S. Dev, F. Riede 2012 — Quantitative functional analysis of Late Glacial projectile points from northern Europe, *Lithics*, 33, p. 40-55.

M. Gurova 2012 — ”Balkan flint” – fiction and/or trajectory to Neolithization: Evidence from Bulgaria, *Bulgarian e-Journal of Archaeology*, 1, p. 15-49.

A. Ilie 2007 — Les fortifications des habitats de la culture Gumelniţa (Roumanie), *Annales d'Universite Valahia Târgovişte*, section d'Archéologie et d'Histoire, tome VIII-IX, 2006-2007, p. 253-266.

A. Ilie 2010 — *Antropologia spațiului domestic la comunitățile Gumelnița în spațiul de la nordul Dunării*, unpublished PhD thesis, “Valahia” University Târgoviște.

A. Ilie 2011 — Parure en terre cuite de la culture Gumelnița des sites du département de Dâmbovița (Roumanie), *BMJT*, 3, p. 119-132.

A. Ilie, F. Dumitru 2008 — Un vase énèolithique zoomorfe de la collection du Complexe Naţional Muzeal Curtea Domnească Târgovişte, *Annales d'Universite Valahia Târgovişte*, section d'Archéologie et d'Histoire, tome IX/I, p. 157-163.

A. Ilie, F. Dumitru 2010 — Vase tip „opaiţ” din cultura Gumelniţa. Descoperiri din tell-ul de la Geangoeşti (jud. Dâmboviţa), *Valachica*, 23, p. 11-30.

A. Ilie, I. Neaga 2010 — Câteva date despre o posibilă producţie metalurgică în tell-ul de la Geangoeşti, *BMJT*, 2, p. 79-98.

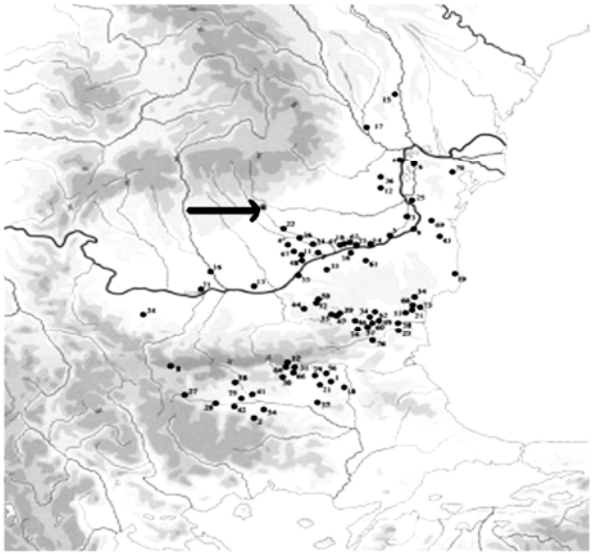
F. Klimscha 2010 — Production and use of flint and ground-stone axes at Măgura Gorgana near Pietrele, Giurgiu County, Romania, *Lithics*, 31, p. 55-67.

F. Klimscha 2011 — Flint axes, ground stone axes and ”battle axes” of the Copper Age in the Eastern Balkans (Romania, Bulgaria), in V. Davis, M. Edmonds (eds.), *Stone Axe Studies III*, Oxbow Books, p. 361-382.

G. Mihăiescu, A. Ilie 2004 — Tell-ul gumelniţean de la Geangoeşti (com. Dragomireşti, jud. Dâmboviţa), *Ialomiţa*, IV, p. 71-80.

A. Păun 2004 — Cultura Gumelnița în Muntenia. Stadiul actual al cercetărilor pe teritoriul județului Dâmbovița, *Ialomița*, IV, p. 81-95.

A. Păunescu 1970 — *Evoluţia uneltelor şi armelor de piatră cioplită pe teritoriul României*, Ed. Academiei RSR, Bucureşti.



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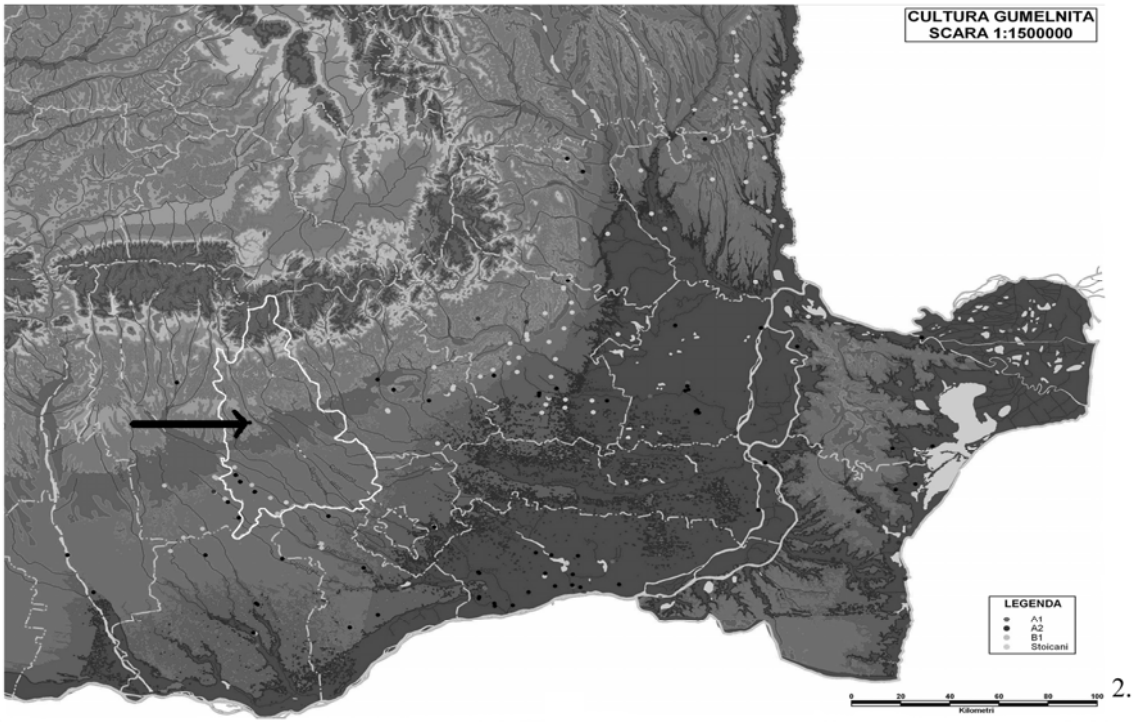

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Fig. 1. The geographical position of Geangoești among the main Gumelnița occurrences in south-eastern Europe (1) (modified after F. Klimscha 2001, p. 363) and south-eastern Romania (2) (modified after A. Ilie 2010).
Localizarea geografică a sitului de la Geangoești în contextul principalelor situri gumelnițene din sud-estul Europei (1) (modificat după F. Klimscha 2001, p. 363) și sud-estul României (modificat după A. Ilie 2010).

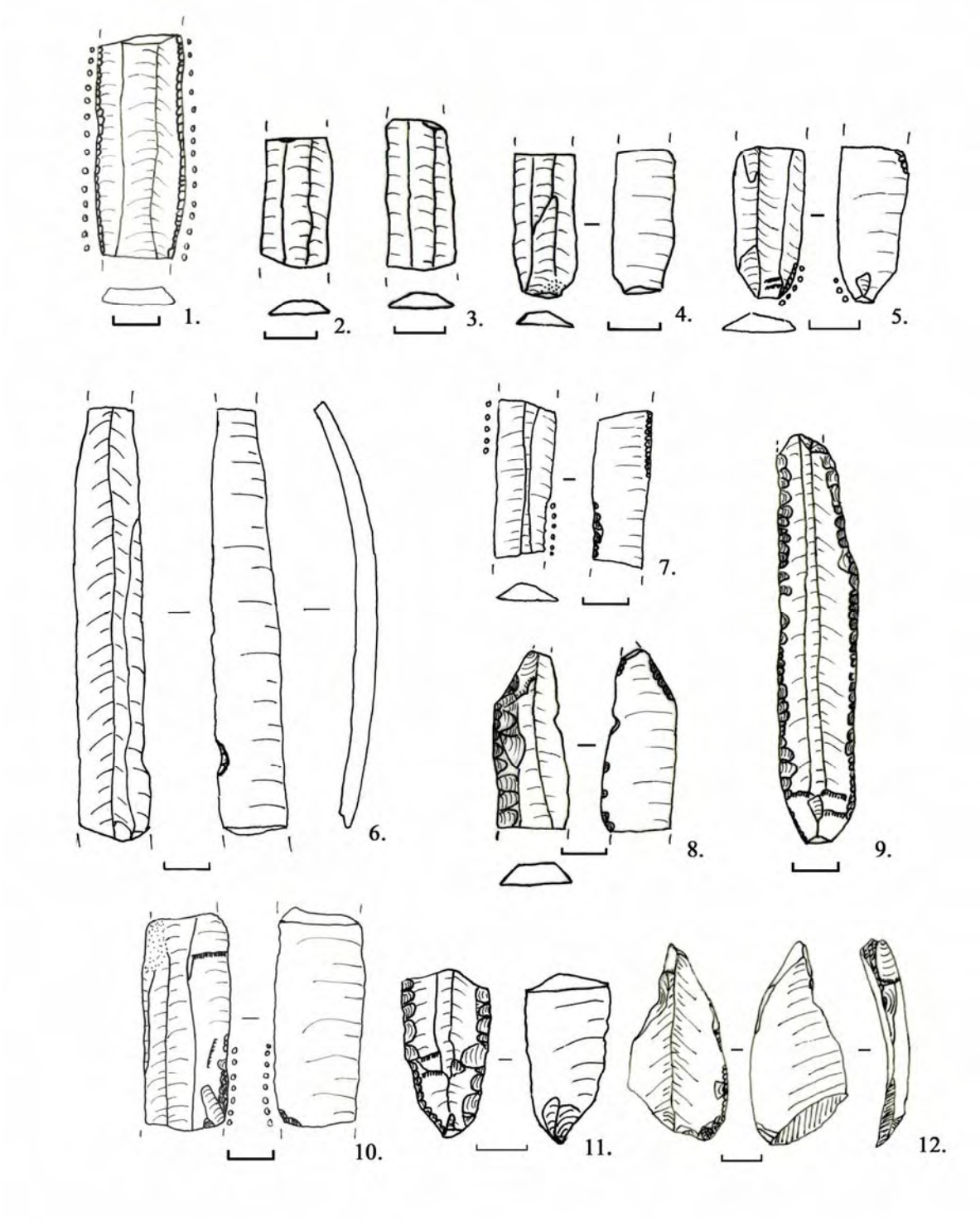

Fig. 2. Geangoești: unretouched blades (2-6, 10), burin (12), and retouched blades (1, 7-9, 11; drawings A. Ilie).
Geangoești: lame neretușate (2-6, 10), *burin* (12) și lame retușate (1, 7-9, 11; desene A. Ilie).

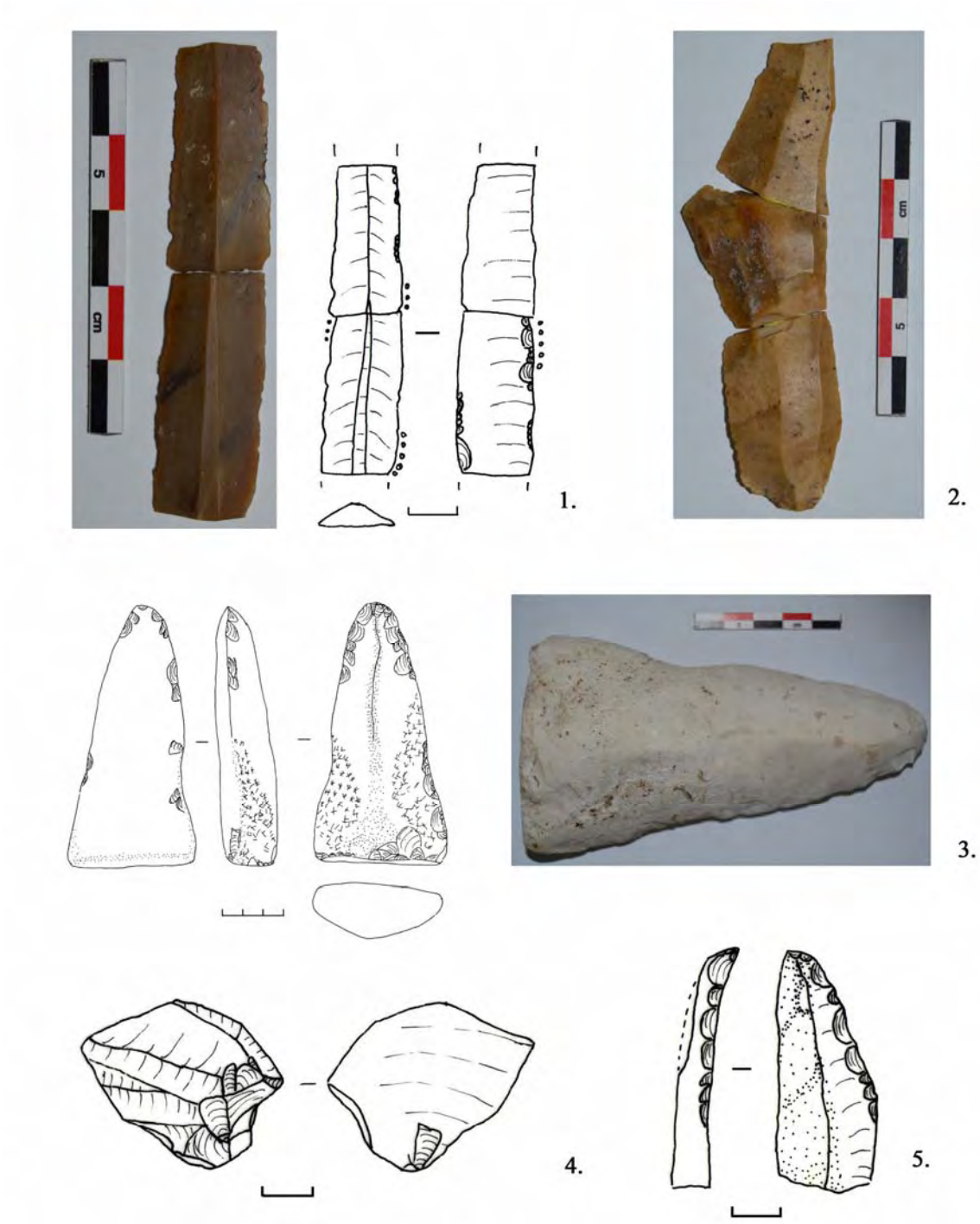

Fig. 3. Geangoești: two cases of fracture refitting on blades (1, 2), rejuvenation flake (4), cortical blade (5), and an unknown implement (3) (drawings and photos A. Ilie).
Geangoești: două exemple de racorduri de fractură pe lame (1, 2), așchie de reamenajare (4), lamă corticală (5) și o piesă indeterminată (3) (desene și fotografii A. Ilie).

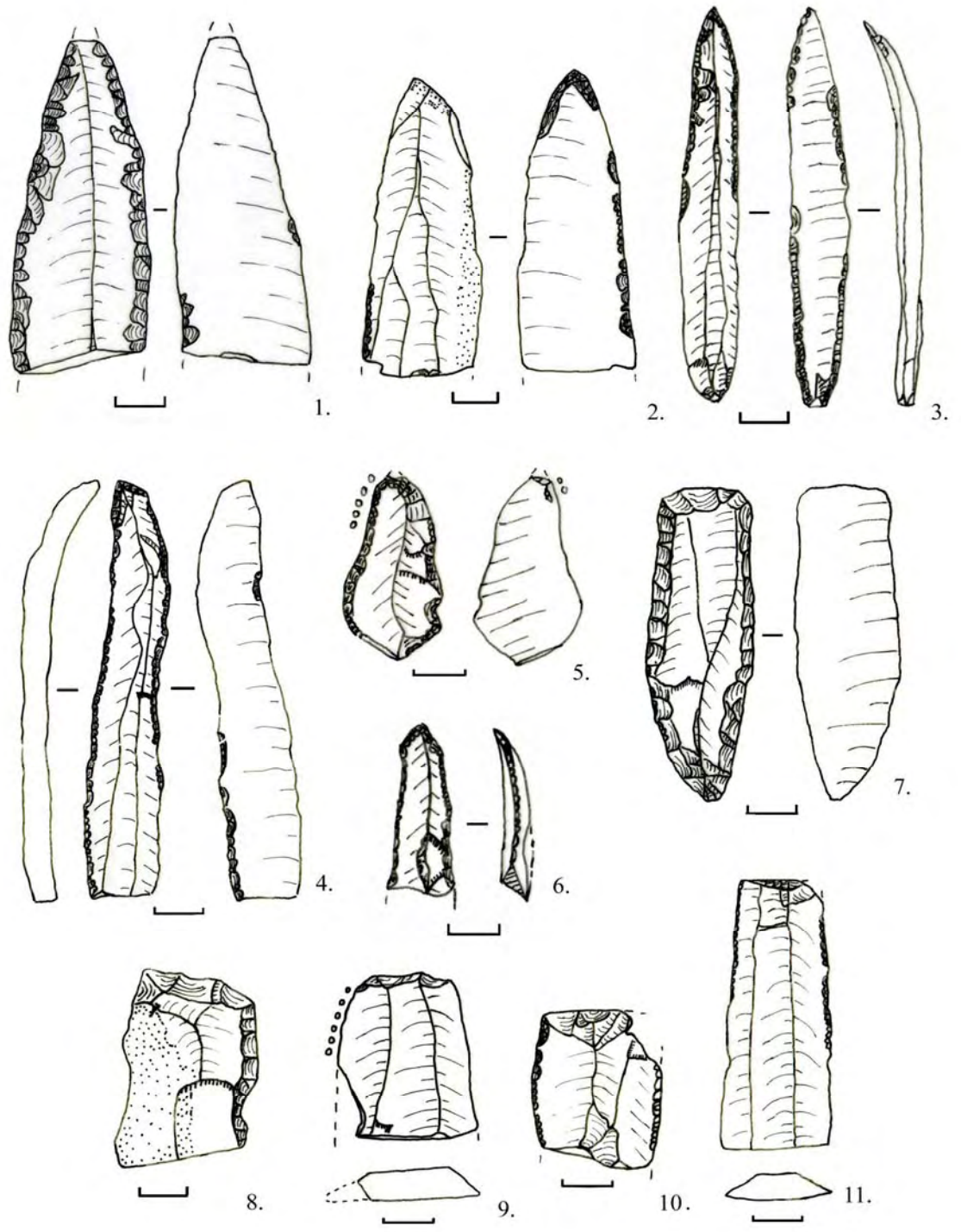

Fig. 4. Geangoești: retouched (1, 5), pointed (2, 3, 6), and truncated blades (4, 7-11) (drawings A. Ilie).
Geangoești: lame retușate (1, 5), lame *appointées* (2, 3, 6) și lame cu troncatură (4, 7-11) (desene A. Ilie).

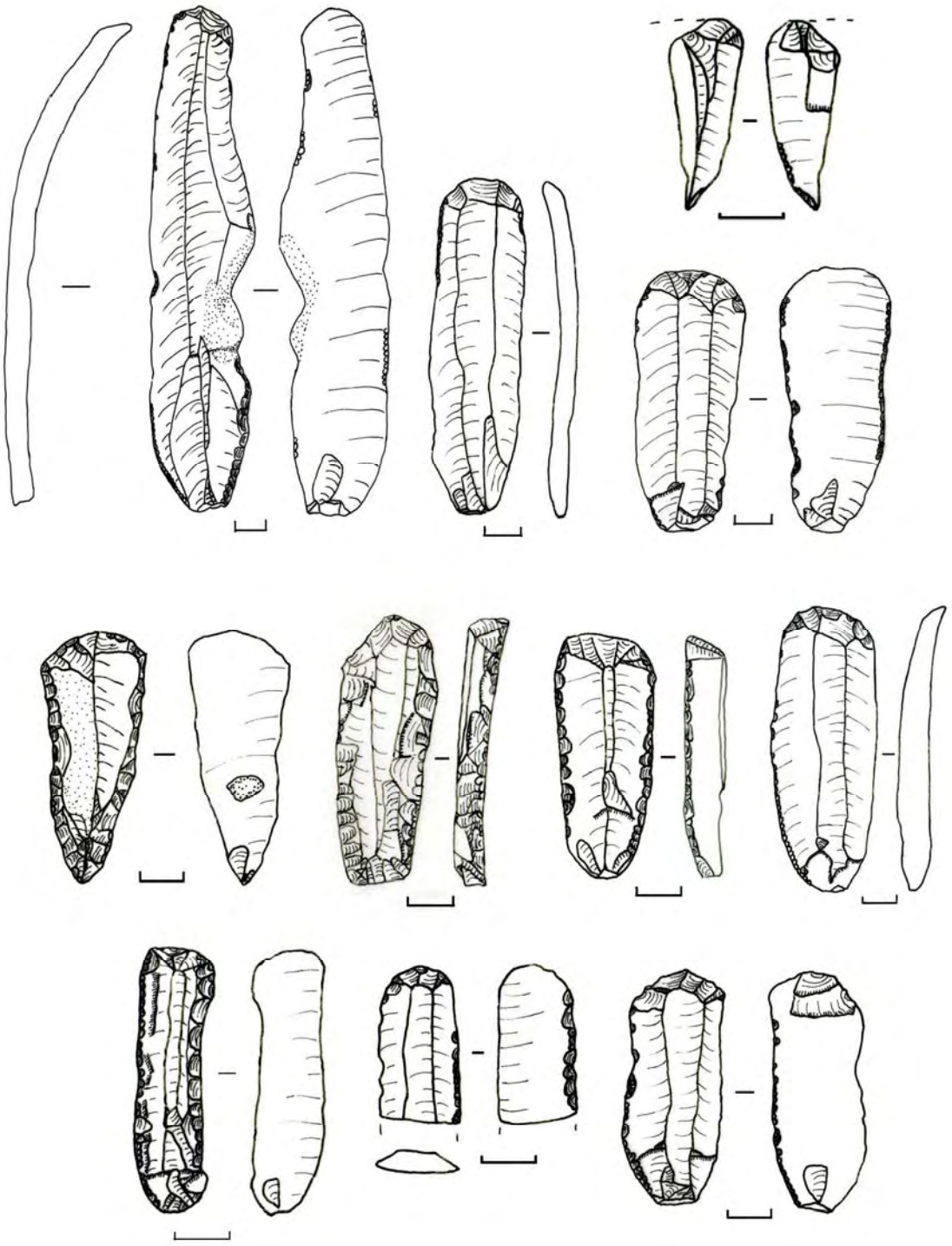

Fig. 5. Geangoești: endscrapers (drawings A. Ilie).
Geangoești: *grattoirs* (desene A. Ilie).

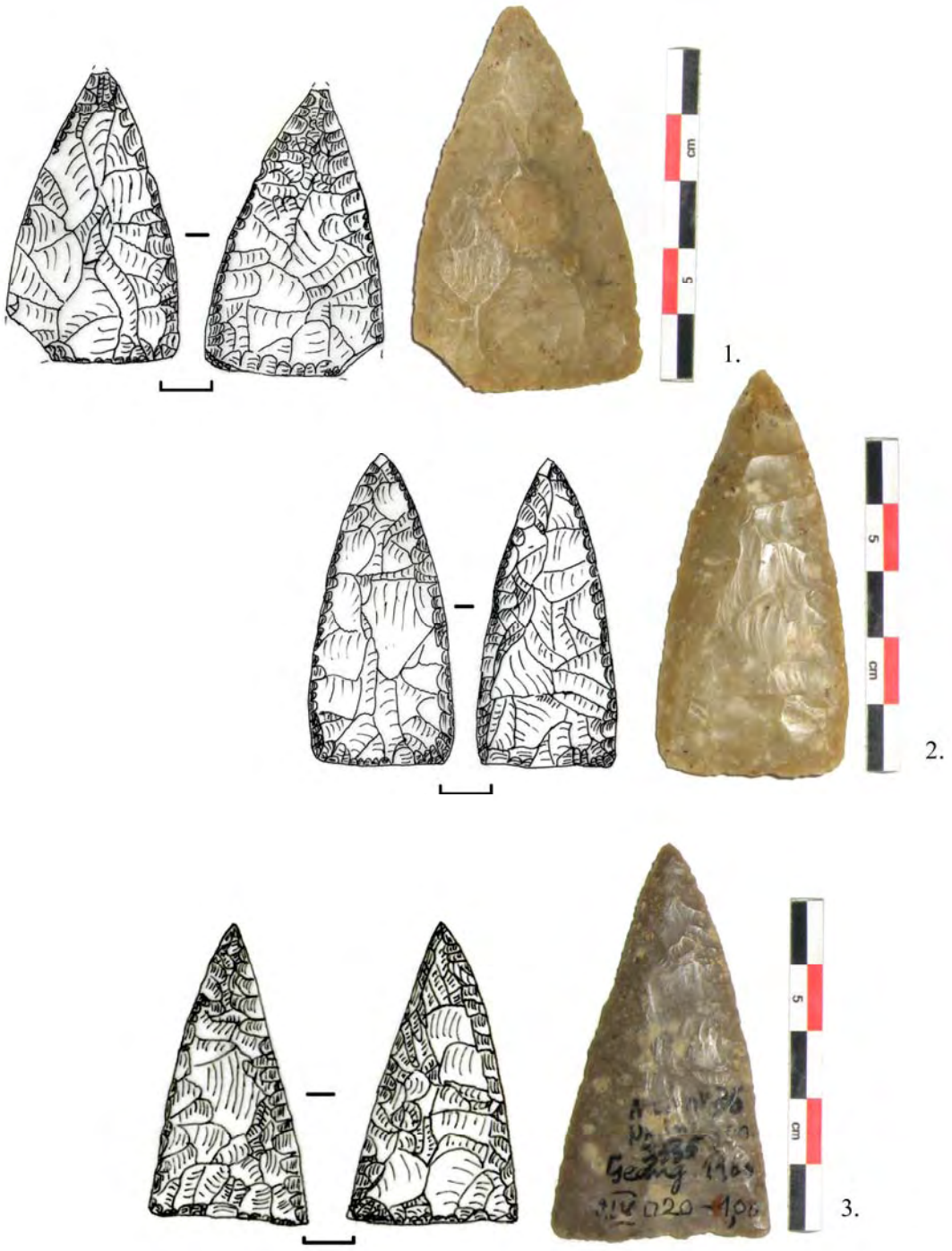

Fig. 6. Geangoești: (1-3) bifacial points (drawings and photos A. Ilie).
Geangoești: vârfuri bifaciale (desene și fotografii A. Ilie).

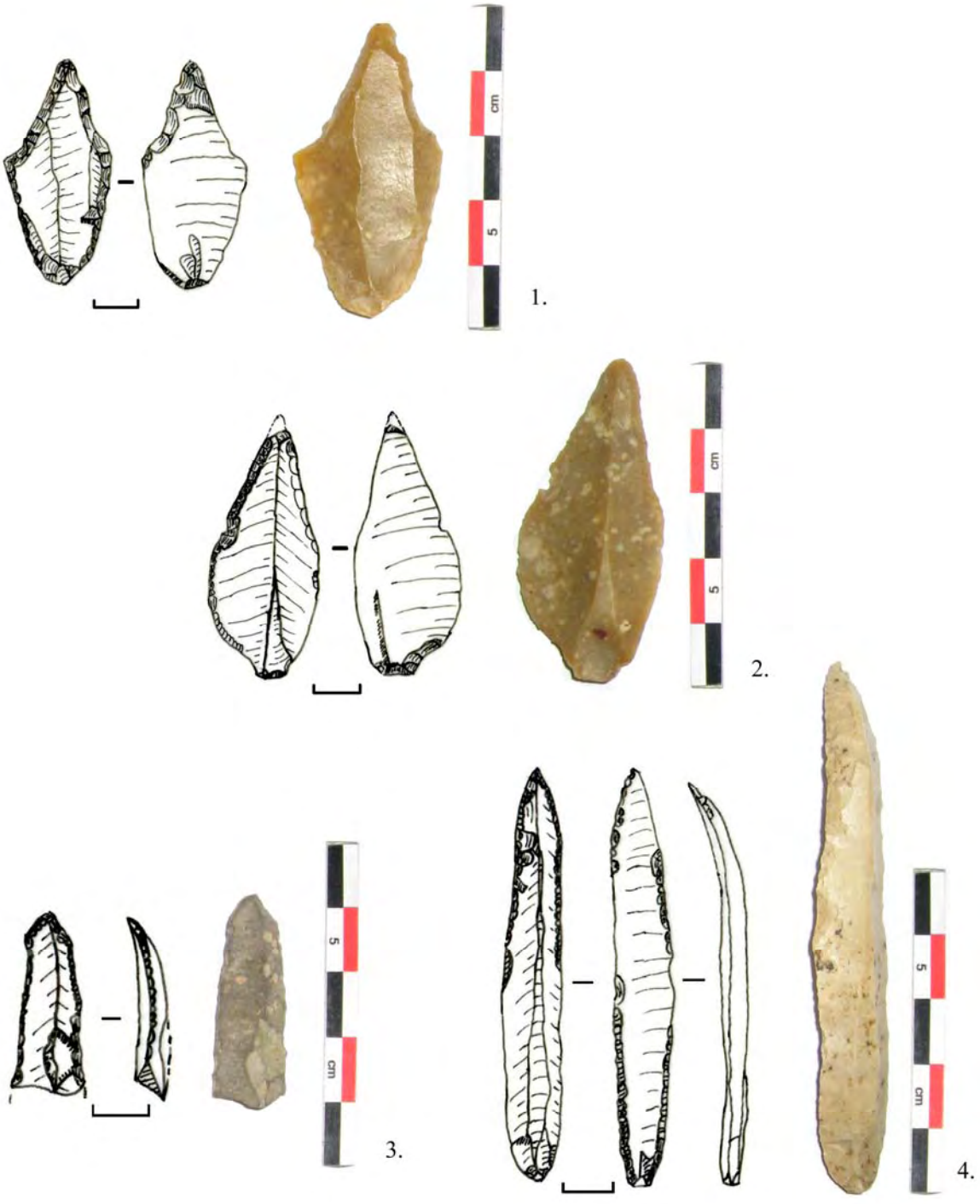

Fig. 7. Geangoești: points (1, 2) and pointed blades (3, 4) (drawings and photos A. Ilie).
Geangoești: vârfuri (1, 2) și lame *appointées* (3, 4) (desene și fotografii A. Ilie).