LOOM WEIGHTS FROM ȘOIMUȘ - *FERMA LA AVICOLA 2*, HUNEDOARA COUNTY

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Cuvinte cheie*: județul Hunedoara, neolitic, cultura Turdaș, Șoimuș, greutăți din lut.*

Abstract: *The Șoimuș settlement was discovered following rescue excavations in the 1970es, on the occasion of industrial developments at La Avicola (Ferma 2). The stratigraphic sequence was ca. 0.95m thick, and the excavated archaeological material was deemed irrelevant from the point of view of the decoration. The pottery fragments were assigned to the Vinča C communities (the local Turdaș aspect), as well as to the Petrești and Coțofeni cultures.*

The excavations were resumed in 2011 as a consequence of the construction of the Deva-Orăstie sector of the A1 motorway, (the 4th Pan-European Corridor). The new stratigraphic sequence appeared to be more complex and the archaeological material very diverse, perhaps due to the fact the investigated area was significantly larger.

The present paper represents a typological and functional analysis of 235 clay weights discovered in the Late Neolithic settlement from Șoimuș.

Rezumat: *Așezarea de la Șoimuș a fost semnalată prin săpăturile preventive (două sondaje) din anii '70 cu ocazia construirii unor hale în punctul denumit La Avicola (Ferma 2). Cercetarea a evidențiat o stratigrafie de până la 0,95m adâncime cu bordeie și locuințe de suprafață cu material arheologic puțin relevant din punct de vedere al decorului, atribuit comunităților Vinča C (aspectul local Turdaș) și Petrești, fiind menționate și materiale Coțofeni.*[1]

Reluarea cercetărilor în 2011 cu ocazia săpăturilor preventive pentru autostrada A1, sectorul Orăștie-Deva, Coridorul IV Paneuropean, a relevat o stratigrafie mult mai complexă și un material arheologic foarte variat, situație datorită probabil suprafeței mult mai mari cercetate[2].

Studiul de față reprezintă o analiză tipologică și de funcționalitate asupra unui lot de 235 greutăți din lut descoperite la Șoimus.

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** "Vasile Pârvan" Institute of Archaeology, Bucharest.

[1] Drașovean, Rotea 1986, p. 9-24.

[2] Ștefan *et alii* 2013, p. 46-66; Ștefan 2014, p. 14-22; Ștefan *et alii* 2015, p. 117-126, Niță *et alii* 2015, p. 97-117.

Introduction

Between August 16th and November 16th 2011, a team of specialists from the "Vasile Pârvan" Institute of Archaeology (Bucharest), the Museum of Dacian and Roman Civilization (Deva) and the National Museum of Romanian History (Bucharest), carried out rescue archaeological research on the Deva - Orăştie sector of the A1 motorway. The investigated area (known as "La Avicola (Ferma 2)") yielded 700 archaeological features assigned to various ages: Neolithic, Bronze Age, Roman period, and post-Roman to the Early Middle Ages.

The Neolithic settlement is located along the Mureş River valley and has two main phases of habitation: the first is represented by sunken-hut type of dwellings, while the second stage comprises surface houses; the two phases were separated by a grey-brown sediment resulting from the leveling of the ground after the first phase. The primary analysis of the archaeological material indicated that the Neolithic settlement belonged to the Turdaş ceramic style.[3]

The assemblage

The 235 weights discovered at Şoimuş were identified and typologically catalogued according to the schematic classification made by Paula Mazăre[4] (Pl. X/5). 147 were fragmented and 88 were complete pieces (Pl. II/1). They were recovered from all the types of the identified features, but the greater concentration was in/or near the dwellings and inside the pits (probably dug for the extraction of the clay and later reused as garbage pits (Pl. II/2)).

The types of clay weights identified in the Şoimus assemblage comprise anthropomorphic, circular, conical, oval, pyriform, and cylindrical shapes. A few were calotte shaped or atypical (those that could not be included in any category).

The five anthropomorphic weights are perhaps the most spectacular, weighing from 130g to 250g. This type can be further subdivided into two subcategories: one that focuses on the facial features and one where the shape of the human silhouette is only suggested (Pl. III).

The circular shaped category was very well represented: 30 pieces with weights between 100g and 200g, some decorated with incisions, others undecorated but with a smoothened surface (Pl. IV).

The conical shape category comprises 31 weights, generally undecorated but with a smoothened surface. The weight range varies between 120g and 430g (Pl. V).

The oval shaped type consists of four items weighing between 80g and 200g. At the upper part of the weights, in a few instances, the suspending perforation is elongated, the morphology of the orifice having changed due to use-wear (caused by the tension exerted by the own weight of the item on the suspension string/thread (Pl. VI/1-5)).

The pyriform shaped category is represented by two pieces, each weighing 150g (Pl. VI/6-7).

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[3] Ştefan *et alii* 2013, p. 52-53; Ştefan *et alii* 2015, p. 117-126 in agreement with earlier ideas of Draşovean, Rotea 1986, p. 21-22; Luca 1997, p. 70; Luca 2008, p. 165.

[4] Mazăre 2012; Mazăre 2013, p. 27-67; Bader 1978, p. 58; Luca 2001; Marinescu-Bâlcu 2007, p. 95-102.

There are four cylindrically shaped weights, two with oblique incisions and two with a smoothened surface. Their weights vary between 200g and 250g (Pl. VII/1-4).

10 pieces are calotte shaped, weighing between 150g and 200g (Pl. VII/5-10)

The spherical category consists of four pieces, one of them with an incised decoration. They weigh between 80g and 100g (Pl. VIII/1-4).

Four weights could not be classified into any of the above mentioned categories (Pl. VIII/5-8).

Analogies

Clay weights similar to those of Şoimuş were uncovered during Zsófia Torma's excavations at Turdaş in the 1930s[5] (Pl. IX/1-2) and S. A. Luca's investigations at Turdaş in the 1997 (Pl. IX/3-4) and 2011.

Analogies were found for the conical, oval, calotte shaped and pyriform categories at Turdaş Luncă. Decoration-wise, there were the incised spherical and circular weights, but also the smoothened ones found their analogies too (Pl. IX).

For the conical, circular, the incised decorated and the atypical we found analogies in the Vinča levels at Tărtăria - *Gura Luncii* [6].

At Limba Bordane - *Vărăria*[7] and at Miercurea Sibiului-*Petriș* (dwellings B12, B18 and B5) [8] clay weights with a circular shape were found.

Also for the circular shape were found.

Conical weights have been discovered at Oraştie - *Dealul Pemilor*[9] (Pl. X/1-3) and spherical weights with incised decoration occurred at Zorlenţu Mare[10] (Pl. X/4).

In 2010, the investigations of a Late Vinča house at Crkvine in Stubline uncovered a group of eight loom weights, located between the eastern wall of oven no. 1 and the eastern wall of the houses. The wall of the oven had collapsed on the top of them[11].

Typology and functionality – discussion

The archaeological study of textiles began at the middle of the 19th century, becoming increasingly popular especially during the last decades.

The only archaeological proofs pointing towards the existence of weaving looms are clay weights and spindle whorls. They come in several types, shapes and sizes, their great diversity having been explained through geographic and cultural factors[12].

Fabrics are the textile products made on a weaving device, by twisting two straight systems of yarn - warp and weft - in such a way that each one passes both

[5] Roska 1941.
[6] Luca 2016, p. 75, 114, 136, 183, 196.
[7] Mazăre 2013, p. 66; Mazăre 2014, p. 35.
[8] Suciu 2009, p. 99, 103, 151.
[9] Luca 1997, p. 152.
[10] Lazarovici, Lazarovici 2014, p. 187-249.
[11] Crnobrnja 2010, p. 45-64.
[12] Mårtensson *et alii* 2009, p. 273.

above and below the other into a certain order. Both warp and weft yarns are characterized by high length and high flexibility, yarn-specific properties. Warp-wise, weaving required a parallel arrangement in one plan of the component yarns, and a particular tension applied to them.

The majority of the prehistoric looms components were made of perishable materials. That is why, unfortunately, very few were preserved. However, prehistoric looms also had some durable elements, such as the weights for creating tension in the yarns, the former discovered in various regions of the globe. The dilemma lays in the fact that these weights could have been used for various other purposes. The functionalities attributed to them are generally related to the spinning process (spindle whorls), weaving (tensioning weights), or they were seen as net weights. It is also possible they served not one but several purposes[13].

From a morphological point of view, there is a similarity between the centrally perforated weights (spherical or circular) and the spread of cudgels (made of stone or metal) across extensive Eurasian areas over a substantial period of time. Thus, naturally, one may assume that the clay artifacts could have functioned the same way as those of stone. It is accepted that the raw material the cudgels were made of were not limited to stone or metal. In the Near East, wooden cudgels were documented (often dressed with precious metals) together with ceramic cudgels; at times miniature cudgels were made of glass or terracotta.

It is therefore possible that the so-called centrally perforated clay weights may have been used as cudgels, being fixed vertically on a wooden handle. Similar to the stone ones, they could have had a dual functionality, both a practical one (weapons), and a symbolic one - ceremonial and votive - (scepters representing the attributes of the divine and human authority). Supporting the latter hypothesis is the careful finishing of some of the pieces, and the decoration, with a particularly rich repertoire for the weights discovered in the area of the Vinča and Turdaş cultures. According to some publications[14], in certain cases the weights were not incised with simple ornaments, but with signs having certain symbolic meanings.

Based on the many ethnographic analogies, it has been suggested that the thatched roofs were kept in place by ropes going from one side of the roof to the other, weighed at the ends with weights made of various materials, and possibly different shapes. This hypothesis could also apply to the case of some of the Șoimuș weights. According to Ménard 2006, the risk of confusing the weights fastening the roof with the loom weights is very high, mainly because the usewear traces on the perforation and the discovery conditions are similar. For example, the alignment of the weights along the house walls (where it may be impossible to tell after the collapse if they had been placed inside or outside) could be confused with the alignment of the weights of a loom located inside the house. The use-wear traces are similar, resulting in the elongation of the perforation[15].

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[13] Marian 2008, p. 247-357.

[14] Mazăre 2013, p. 27-67; Lazarovici, Maxim 1996, p. 266-267.

[15] Mazare 2013, p. 27-67 after Ménard 2006, p. 38 (non vidi); Pamfilie 1910, p. 67-71; Mozes 2009, p. 268-281.

The weights were interpreted also as weights for fishing nets, especially in the case of those of circular and spherical shape, centrally perforated. The argumentation is based on the analogy between the prehistoric artefacts and those used in the traditional fishing technique of enclosure using nets of different sizes with floating elements (plumes) attached to the upper part while in the lower part are attached the weights. At the archaic types, the floating elements may be missing, in which case the net is maintained in the vertical position by the fishermen. Nowadays the weights for the fishing nets are made of lead, but in the primitive fishing they consisted mainly of stones or ceramics. According to the ethnographic data, the Norwegian fishermen still use pieces of molded clay as weights, similar in shape to the prehistoric circular weights[16].

A problem of functionality arises in the case of the centrally perforated weights which, from the point of view of their morphology and weight lie at the boundary between weights and spindles (as usually defined). Although size-wise this group is closer to the weights, shape-wise they are closer to spindle whorls (conical or biconical) and they are not suitable to be used by suspension. Under these circumstances, their use in spinning may be supported only by the fact that during the Neolithic / Chalcolithic period, large spindle whorls (allegedly) of over 200g have been documented[17].

Generally, the loom weights were discovered inside the dwellings (interpreted especially as functional domestic space), but they also appeared outside them, scattered scarcely either throughout the entire area of the settlement, or in man-made intentional arrangements. In the latter case, especially for the isolated or fragmented weights, a post-functional or an extra-functional status may be possible, suggesting either the abandonment or a depositional (ritual) character [18].

Conclusions

The present study brings into attention the typology of different types of weights used by the Șoimuș community at the Middle Mureș River, in an attempt to establish certain correlations with those of other communities in the same area and beyond.

The group (comprising 235 complete and fragmented weights) is well represented for almost all the types of weights from this area and offered the opportunity to study a rich numerical sample from a single representative Turdaș settlement.

For most of the shape categories, analogies were found close to the settlement (Turdaș Luncă, Orăștie - *Dealul Pemilor* in Hunedoara county, Tărtăria - *Gura Luncii* and Limba Bordane - *Vărăria* in Alba county) but also in more distant geographical areas (Zorlențu Mare in Caraș Severin county). The most spectacular weights were the anthropomorphic ones, with no analogies in the interior of the Carpathian bend.

[16] Mazare 2013, p. 27-67 after Ménard 2006, p. 38 (non vidi); Pamfilie 1910, p. 67-71; Mozes 2009, p. 268-281.
[17] Mazăre 2013, p. 27-67.
[18] Mazăre 2013, p. 27-67.

The present authors believe that the oval shape weights were used for the looms, given the elongated morphology of the perforation (caused by the item's own weight and the tension created in the thread). No item standardization was observed for any of the categories, this observation being based on the dimensions and the weight of the items. Most likely, such detailed observations can also be made in the case of the large-scale archaeological investigations that took place in several settlements in the Turdaș area, but which benefited so far of very little publication.

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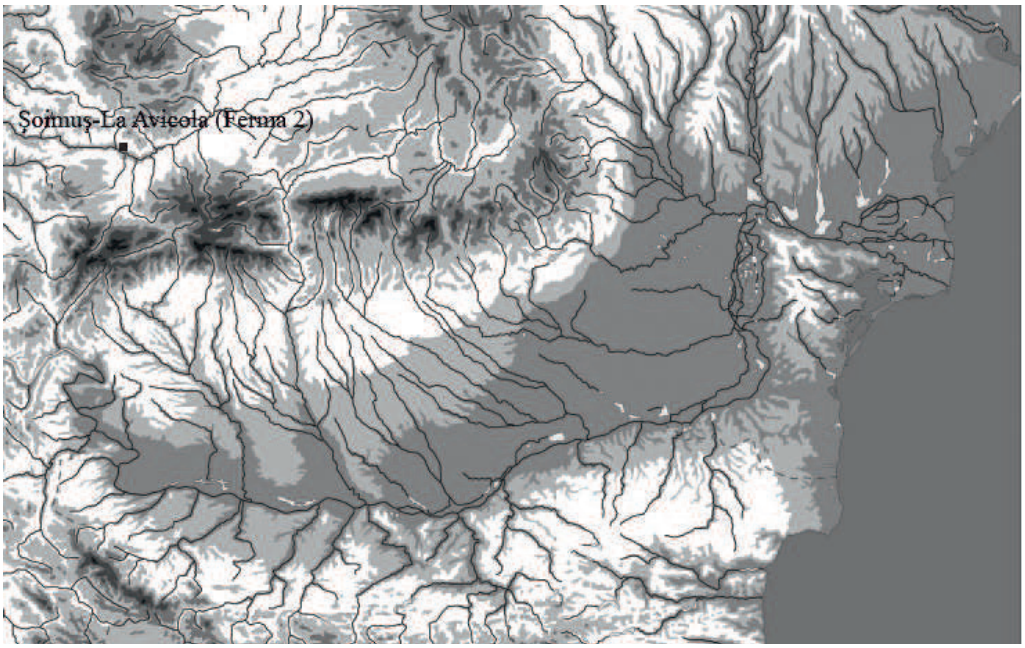

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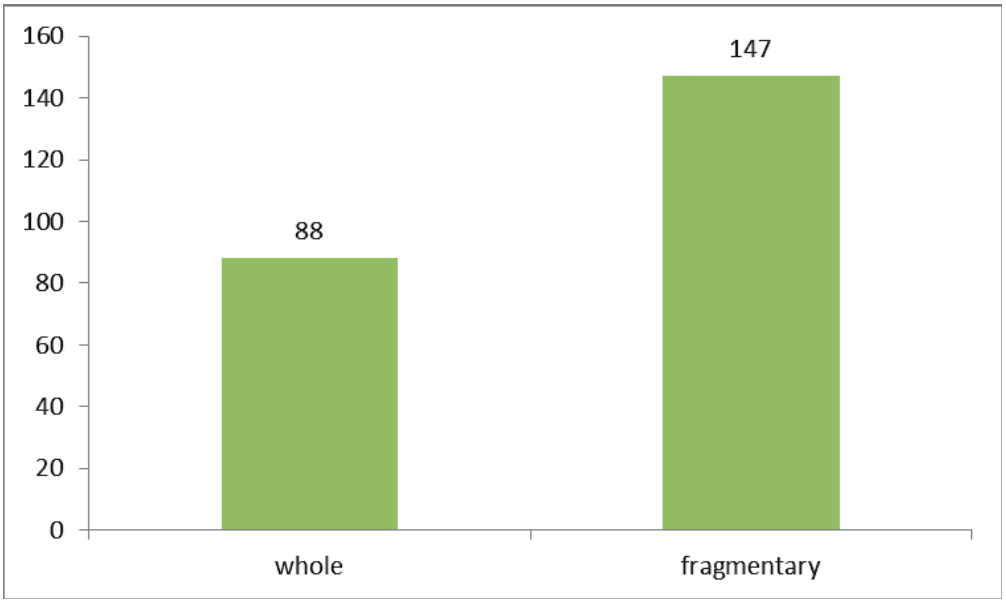
Plate I. The topographic position of the settlement from Șoimuș-La Avicola (Ferma 2) (1); aerial photo of the settlement during archaeological research (Courtesy of Carmen Bem) (2)



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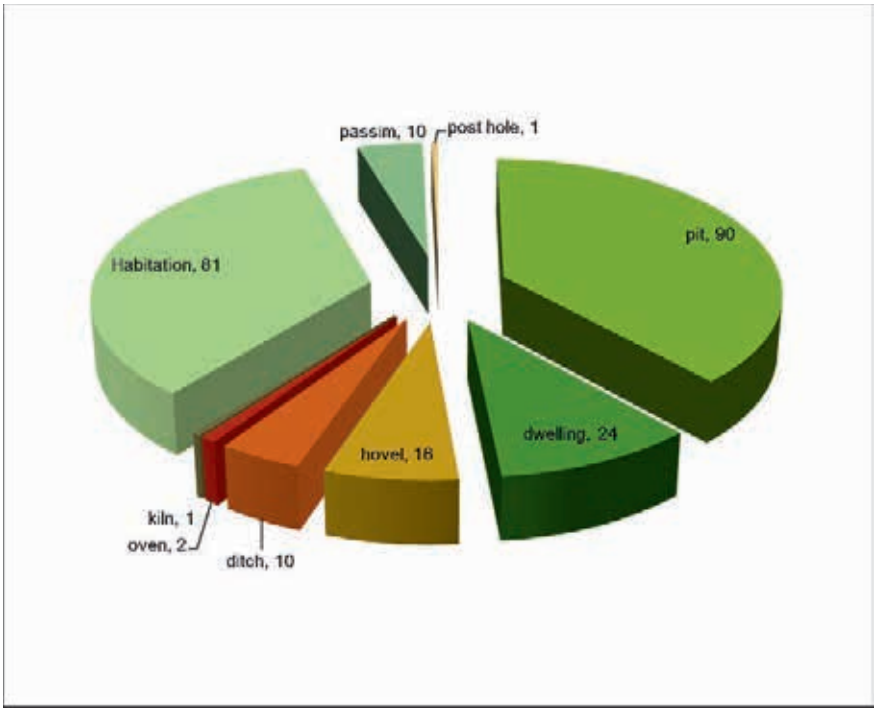

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Plate II. Preservation state of the clay weights (1); contexts of the clay weights (2)

Plate III. Clay weights with anthropomorphic traits

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Plate IV. Clay weights with circular shape

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Plate V. Clay weights with conical shape

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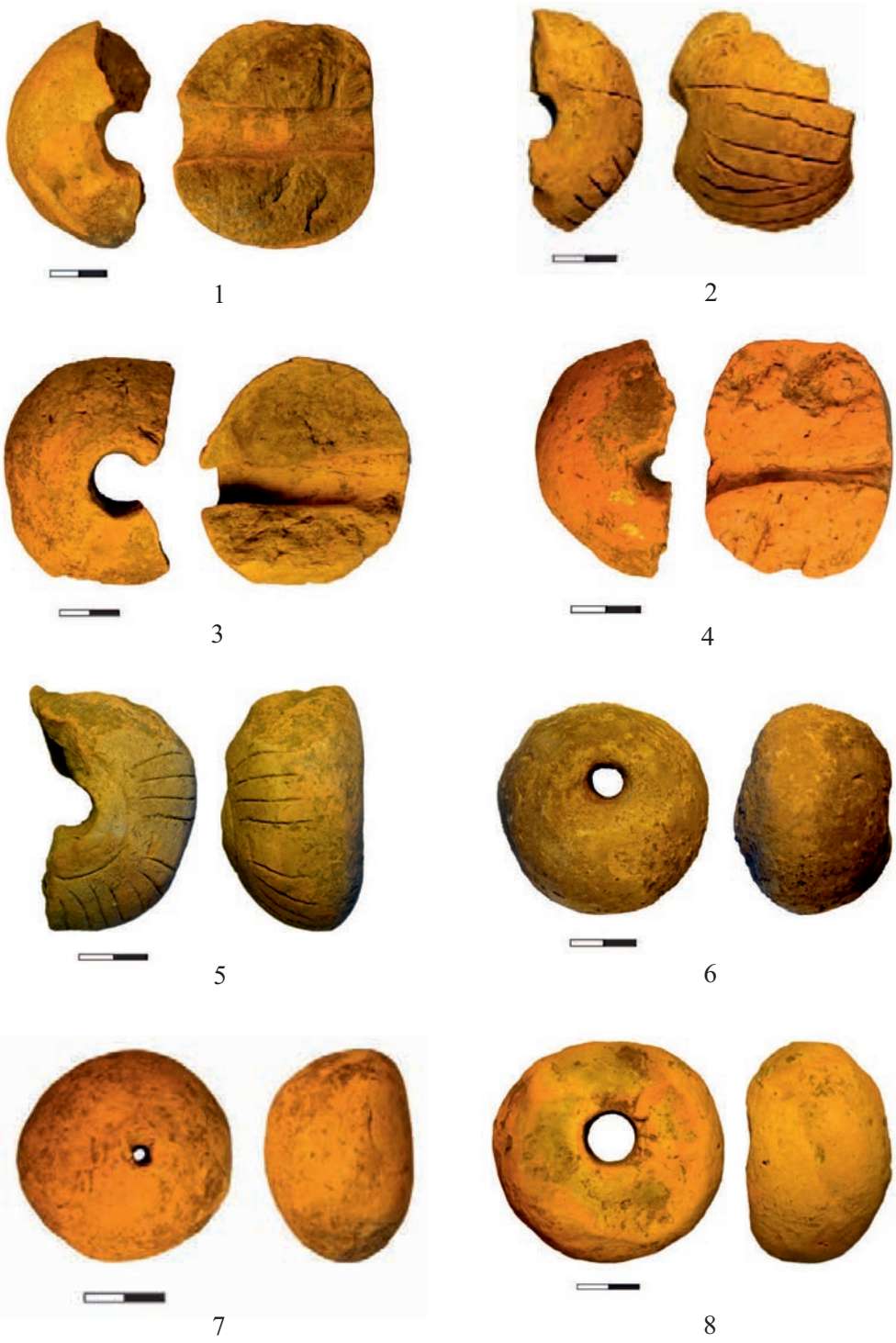

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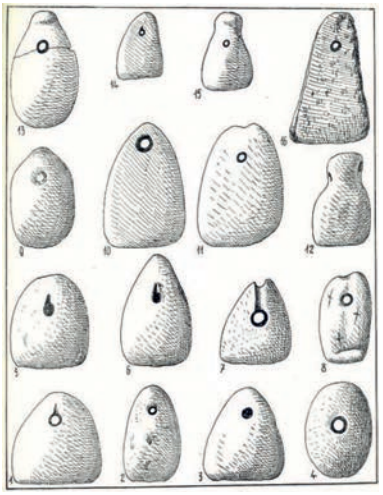

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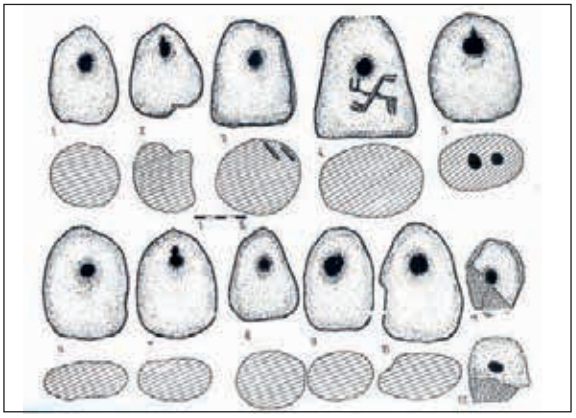

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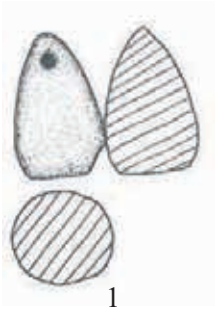

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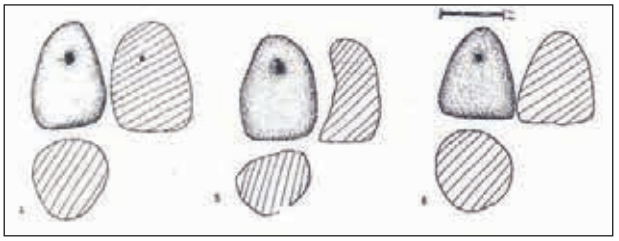

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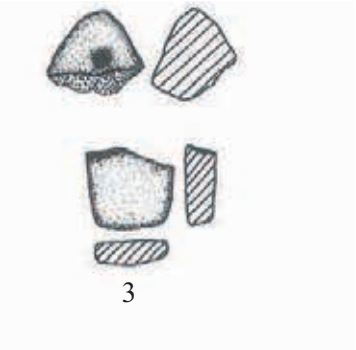

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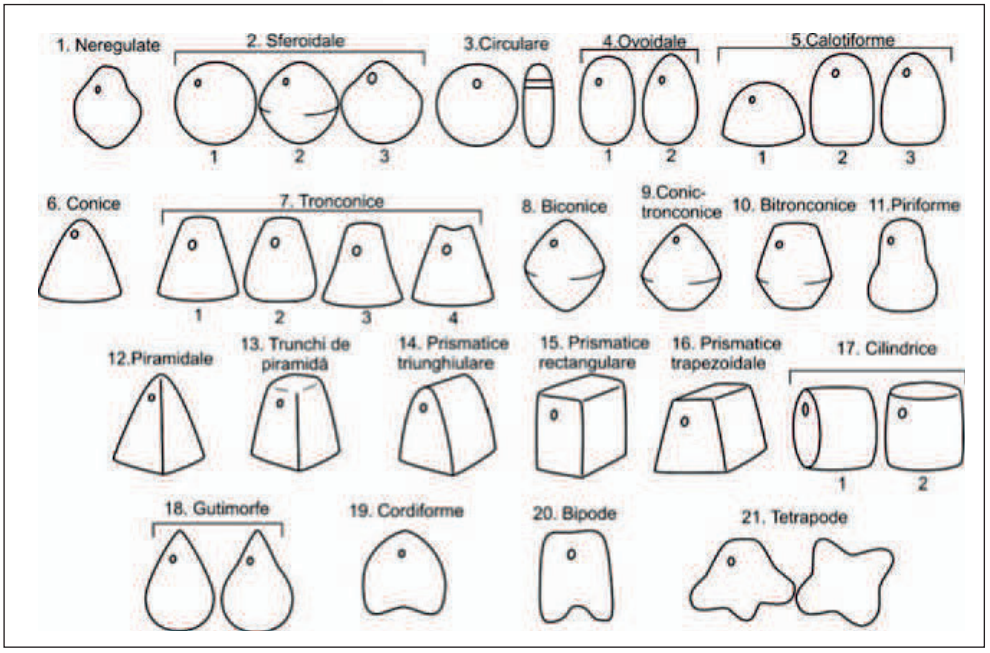

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