

**ACTA TERRAE SEPTEMCASTRENSIS**  
**XVI, 2017**





***LUCIAN BLAGA* UNIVERSITY OF SIBIU  
FACULTY OF SOCIAL AND HUMAN SCIENCES  
DEPARTMENT OF  
HISTORY, HERITAGE AND PROTESTANT THEOLOGY**

# **ACTA TERRAE SEPTEMCASTRENSIS**

## **XVI**

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**Sibiu, 2017**

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## NEW DECORATIVE MOTIFS IDENTIFIED ON THE STARČEVO-CRIȘ POTTERY FROM CRISTIAN III (SIBIU COUNTY)

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**Abstract:** *The article comprises an addition to the catalogue of decorative motifs identified on Starčevo-Criș, after the ones published by the author in 2011 and 2013, this time after analyzing the pottery from Cristian III, Sibiu County. As in the case of the already mentioned studies the author presents both the drawings and description of the ornaments.*

**Key words:** *Early Neolithic, Starčevo-Criș, pottery, ornamentation, Cristian III, Transylvania*

When signing the introduction to a volume dedicate to the study of Neolithic pottery (Maxim, Popovici 1995) Radu Florescu appreciated that, through its artistic and symbolic richness the study of pottery is a *passionate and fecund activity* and [...] *it develops a complex meta-language, subtil and fine, quite difficult to decrypt* [...].

Indeed, for the specialists that are involved in the study of the prehistory, the ceramic material is, on one hand, a durable resource, considering its conservation into the soil during the passing of thousand years but, on the other hand fragile material, if we should consider its daily usage, an I am referring here to the usual pottery which served in domestic porpoises, but easy to break, as it is also the pottery that has a special destination, the one that specialist frame into the fine category, even though it is not the case of the same ceramic wear. These situations determine for many of the pottery not to *survive* the generation that created it. It is also true that there is pottery that was fragmented, broken and reused in the ancient period by the community or diverse tools or finery objects (Vuković 2015, 111-126).

So, through the quantity discovered in archaeological excavations, but also by its characteristics, which in many cases determined also the particularities of the culture that it belongs to, the ceramic fragments are an extremely important indicator for determining the relative chronological framing of the feature that it was discovered in.

In what concerns Radu Florescu's observation about the complex and difficult to understand language used by the archaeologists in describing the pottery, indeed, the unspecialized reader can be overwhelmed by the used terminology and, sometimes, the same problems appear in the case of the specialist too because there are situations when the same term can indicate different situations. I shall not discuss here, for example, the way archaeologist name colours for the ceramic fragments. It is well-known the fact that we can perceive differently the colours, or even if they are not perceived differently they are being named in accordance to our personal experiences, this being the reason why in the analysis is mandatory to use, right from the start, and in a unitary way, some colour sampling or the reporting to *Munsell* system, with the afferent codification, and in this case a code represents the three dimensions of colour: hue, value and saturation (Munsell 1919). But, in this last case, one can be in the situation of having different Munsell codes for the same colour of shard, due to the very small differences of the above-mentioned dimensions, in which case they are not so relevant for our interpretation (Tudorie 2013, 64-65).

It is also true that in case of the terminology used by the archaeologists to describe the pottery there is a series of specific terms and here are some examples: *blacktopped* – a term used for indicating a special firing technique, a chromatic effect on the pot: the superior part has a black colour, and the inferior one red, or from the category of light brown, orange, yellow; *pseudo-barbotine* – an ornamental technique made by an easy tamponage made on the surface of the pot, when the clay is still flexible); *engobe* – a fine clay suspension, produced by decantation, opaque, which was used for covering the pot before the firing, with a thin layer, in order to cover some imperfections or for preparing the surface for painting (Lazarovici-Micle 2001, 214-216; for geologic terms used in studying the pottery: Ionescu-Ghergari 2006, 451-460; a short dictionary used for the study and description of the pottery it is included in Tudorie 2013, 223-224. For its elaboration the author used, besides the two sources above mentioned, a series of dictionaries as: Cinotti 1967; Yon 1981; Champion 1983; Consentino 1990). So, as anyone can notice, the unprofessional reader can be disarmed in his attempt to decode the information.

The quantitative analysis of the Neolithic ceramic material, its standardization, the framing of the fragments discovered in the archaeological researches for this period in the Balkan Peninsula area aren't a recent approach, this type of study was implemented long time ago and it provided important information.

But, this research method still isn't a general one for the ones that study this period, because of several reasons, as it is the long period of material processing, but also the lack human resources that can easily describe macroscopically each sherd discovered in an archaeological feature and afterwards the computerized part of processing the information from the collected data.

Inspired by the methodology of data collection, but also the description method used in the former Czechoslovakia and Yugoslavia (Tarcea-Lazarovici 1996, 683), even since 1984 also in Romania have started the attempts of projecting data bases for storing the information about archaeological discoveries (Kalmar Maxim 1999, 8), so that in the end to be created a system that, on one hand allows the administration of data bases and on the other hand the processing of the information (Lazarovici-Micle 2001, 105

### Working method

The site from Cristian, initially mentioned in the *Archaeological Repertoire of Sibiu County* (Luca *et alii* 2003, 90-92), was preventively researched during the works undertaken for the construction of Sibiu-Orăștie highway. The administrative territory of Cristian commune, which is being placed at 10 km west from Sibiu, it is being composed of Cristian I zone, Cristian II zone and Cristian III zone (Luca 2015, 11). In the Cristian III point the following chronological sequences were discovered: Early Neolithic – Starčevo-Criș culture, Late Bronze Age: Noua Culture and Early Hallstatt period (Luca 2012, 127; Luca *et alii* 2013, 35; Luca *et alii* 2014, 7).



**Map 1.** The localization of Cristian, Sibiu County (Google Earth capture).

Using statistics as a working method in studying the ceramic material and the attempt to standardize the information obtained can raise different problems caused by: the great fragmentation of the material (there are only a few pots that can be reconstruct entirely), the comparison of different parameters indicated for some pot types of pots, establishing the groups and interpreting the context (Vuković 2011, 81).

Another aspect that should be considered in analyzing the pottery, no matter the epoch, starting from the Neolithic until the Middle Ages, is its morphology. There are several patterns used for standardization, and an example could be analyzing the major components of a pot: the orifice (here being included both *the rim* and *neck* – if the case), the body (*the belly*, but also *the shoulder* of the pot, the last one being formed in the situation when the maximal zone of development of the pot is being on its superior side) and the base (*the bottom*, *the foot/feet*)(Rice 1987, 213). For the pottery that is being attributed to some archaeological culture, of same importance is the shape or the type of handles, the way they were perforated (horizontal/vertical) or not, but also their positioning on the surface of the pot or even their ornamentation.

The shape of the pots determined sometimes their classification, based on geometric shapes: sphere, ellipsoidal, oval, cylinder, hyperboid)(Rice 1987, 219).

The framing, for the Early Neolithic period, of the pottery, indicates a certain terminological unity.

For example, Gheorghe Lazarovici frames Early Neolithic pots in five large categories: *truncated bowls* with six variants: plate, globular, short, with a profiled bottom, narrow, tall, with an easily profiled rim; *cups with feet* with the following variants: truncated, short, with small foot; truncated, short, with tall foot; semispherical with a profiled rim, middle foot; globular, with tall foot; plate, with quadrilateral foot with or without perforations on the foot, lobed rim (*Zipfeland*); with truncated foot, short, tri-lobed; *pots*, with variants: globular; globular short, with a tendency of bi-truncated shape; piriform, semispherical with straight rim; asymmetrical; semispherical with little feet; *specific for Starčevo IV shapes* with the variants: plate bowls; profiled bowls; bowl with a profiled rim; bi-conical pot, and *shapes typical for Vinča A-Starčevo-Criș IV A-B* where are included the bowls and bi-conical bowls (Lazarovici 1979, 37).

Marius Ciută prefers, for the first phase of the Early Neolithic, the following framing: bowls (in this category are the pots for which of the rim is much smaller than the maximal diameter of the belly, having the sphere as a model); *bowls* (semispherical or cap pots, with the curved walls determine an opened shape, the diameter of the rim being the maximal one; the base model is the sphere); *plates* (truncated pots, with straight walls, opened shapes, the diameter of the rim being the



maximal one, and the base model is an upside down cone) and *bowls* (bi-conical pots, with the base mode being two cone trunks overlapped)(Ciută 2005, 81).

The usage of catalogues and dictionaries for describing the ceramic material leads to eliminating the descriptive language, which is being replaced with a codification which means a great reduction of time for the material processing (Tudorie 2013, 62).

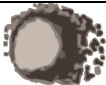
Generally, the specialists involved with the quantitative and qualitative study of the pottery, besides the fabrication techniques, that can include both microscopic and macroscopic investigations, then the observations regarding the morphology of the pots, it is also regarded the social context for pottery production, comprising here discussions referring to local production, domestic, or the existence of some specialized centers, the pottery being regarded as an indication for sedentarisation, mobility or presence of these communities in different seasons, the method used and communicating the information regarding fabrications techniques that are to be used by the following generations (Thissen 2007, 109-110) or reinterpretations of some decorative techniques – from the used terminology to the way that they were actually produced (Vuković-Svilar 2015-2016, 73-98).



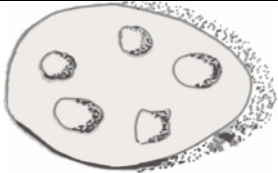


## Results


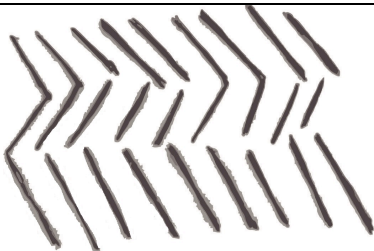
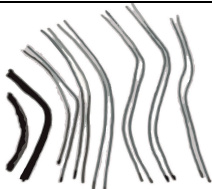
The results of the macroscopy study made on the pottery belonging to Starčevo-Criș culture, from Cristian III site, were already published, as is the case for the pottery from the sanctuary (Luca *et al.* 2016, 60-63), as the case of features: C269, C329, C577, C586 (Tudorie 2017, 7-14) and the rest of the features in the monographic study published in 2017 (Luca *et al.* 2017).




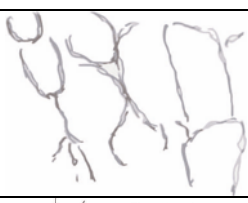

In what concerns the decorative techniques, the identified types were framed, in most of the cases, to the one already published by Zoia Maxim (Maxim 1999) and Anamaria Tudorie (Tudorie 2011, 7-16; Tudorie 2013, 73-75, 77, 82-88). The new types are being presented in this study.





Regarding the new decorative motifs identified on the pottery from Cristian III, we can say that the barbotine, incisions, *impresso* type motifs (with finger or object) and some plastic applications.



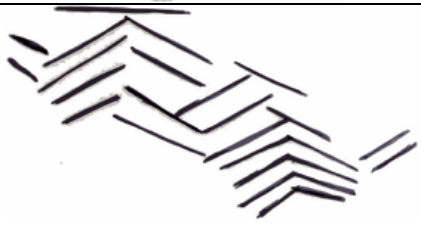

Graphic representation of the ornament	Ornamentation technique	Code	Description
	Plastic application	AV	Plastic application shaped as a circular button, having the diameter of 8


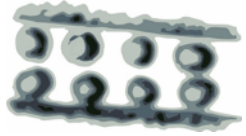
			mm.
	Plastic application and alveolation	AW	Plastic application spiral shaped with alveolation on its surface.
	Plastic application and pinching	AX	Circular shaped plastic application with the diameter of approximately 25 mm, with a pinch in the middle.
	Plastic application and alveolations	AZ	Ovoid shaped plastic application, presenting five alveolations displayed circularly on its surface.
	Impression made with an object, nail impression	EP	Series of <i>impresso</i> type ornaments, made both with an object and nail.
	Incision	FS	Deep incision, U letter shaped.

	Incision	FT	Parallel organized incisions, displayed vertically on the pot's surface, intersecting perpendicular with other two incisions, parallel, displayed slightly oblique, from right to left, on the pot's surface.
	Incision	FU	Organized incisions, parallel, displayed in truss frames with the angle towards the right side (the first register) and organized incisions, parallel, oblique displayed on the surface of the pot, from left to right, forming another series, with the point towards left.
	Incisions	FW	Series of incisions forming curved-linear incisions.

	Incisions	FX	Not very deep incisions, displayed in slightly interrupted lines, vertically, from the right towards left, on the surface of the pot.
	Incisions	FY	Organized incisions, displayed in truss frames, with the point towards left.
	Incisions	FZ	Organized incisions, oblique displayed on the surface of the pot, from right towards left and from left towards right, intersecting and forming several V's.
	Barbotine	JR	Ornamental barbotine.
	Barbotine	JS	Ornamental barbotine organized in oblique rows (from left to right) in the inferior register and dragged with the finger

			towards the superior register.
	Barbotine	JT	Barbotine organized in curved strips, vertically displayed on the surface of the pot.
	Barbotine	JU	Barbotine organized U shape.
	Barbotine	JW	Barbotine organized in rows, oblique on the surface of the pot – from the right towards the left side – and vertically.
	Incisions and impressions made with finger-tip	TT	Combination of elements formed of two series of parallel incisions displayed oblique on the surface of the pot (from left to right in the superior register and from right to left in the inferior register), bordered by from another slightly curved incision and impressions made with finger-tip.

	Impressions	TZ	Four rows of impressions made with an object, horizontally displayed on the surface of the pot, forming the <i>wheat spice</i> motif.
	Incisions	UA	Incisions forming the swastika motif.
	Incisions	UB	Series of incisions organized in truss frames, with the point up, intersected around maximal development of this motif with another horizontal, short, incision.
	Incision	UC	Two perpendicular incised lines, the longest side being vertically displayed on the pot's surface, and the shorter side horizontally.

	Incisions	UD	Series of organized incisions.
	Plastic application and alveolation	VO	<i>Belt</i> type plastic application, with two horizontal rows of alveolations.

Although the highest part of the decorated material could be framed in the older catalogues, 24 new types of ornaments were identified. From these, most of them are incisions (11 cases), followed by barbotine (6 cases), 5 cases are plastic applications, some of them combined with alveolations, one application has a pinch on it and 2 cases of impressions, made with finger-tip and nail, nail or with an object.

The analyze made on the pottery from the Cristian III site help us to add new information to the data base for the Early Neolithic pottery, this time with new elements belonging to phase III of Starčevo-Criș culture. Until this moment, the materials analyzed from Miercurea Sibiului-*Petriș* (Sibiu Coutny), Cristian I (Sibiu County), Turdaș-*Luncă*, feature 164 (Hunedoara County), Săliște (Cioara, Alba County), Iosaș-*Anele* (Arad County)(Tudorie 2013, 91-177), Ghioroc-*Balastieră Vest* (Arad County)(Sava et al. 2015, 39-64, 75-80) included, in almost all cases, materials belonging to the first two phases of development of the culture, as it was defined in the chronologic system elaborated by Gheorghe Lazarovici (Lazarovici 1979, 19; Lazarovici 1984, 48-104), excepting the site of Ghioroc-*Balastieră Vest*, which was framed in the IIIA phase of the culture (Sava *et al.* 2015, 75).

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**SOME DETAILS REGARDING THE ARCHEOLOGICAL  
FEATURE C<sub>23</sub> FROM TURDAȘ-LUNCĂ SITE,  
HUNEDOARA COUNTY (II).  
THE PREVENTIVE EXCAVATIONS FROM 2011**

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**Key words:** *Turdaș culture, Early Eneolithic, Transylvania, Romania*

**Abstract:** *The preventive archaeological excavations from 2011 made possible the unveiling of a significant part of the archaeological site from Turdaș, Luncă point. There were researched thousands of archaeological features, the defensive system of the site, the habitation neighborhoods and some other results of the human works. With this article, we are continuing the complex processing of the discoveries from this campaign with feature 23, sector A.*

The archaeological site from Turdaș-Luncă (Hunedoara County) it is well known in the specialized bibliography from Romania (for general bibliography see: Luca 2001). Turdaș culture it is being developed in Transylvania in Early Eneolithic (Luca 2001, 5-152).

The preventive excavations from 2011 were continued also between 2014-2014 leading to some well-individualized discoveries, belonging to Turdaș culture. Several articles and studies about this culture were published. The purpose of this work is the one to individualize an archaeological feature of the preventive researches made during 2011 (Luca *et al.* 2011), C<sub>23</sub> (plan 1-3).

### **The description of the feature**

Dwelling C<sub>23</sub> was fired, the marks of the fire were also identified to other contemporary features with C<sub>23</sub> which implies an event that distorted the depend features from sector A (plan 1).

These is being overlapped by ditch C<sub>14</sub>, which implies the construction of the fortification system after the violent firing that burned it. The same stratigraphic sequence it is present in the case of feature C<sub>13</sub> (with similar materials as C<sub>23</sub>, as facture) which is being cut by ditch C<sub>10</sub> (Luca, Suciu 2014; Luca, Suciu 2016). All this deepened features, contemporary – excepting C<sub>14</sub> (this one cuts – plan 1b and 3, right - the feature that was published) with C<sub>23</sub>, are very rich in entire ceramic materials and complete tools which implies a rapid abandonment, which can be explained in the case of the fire. Perhaps, Mr. C. Suciu, critic with his own interpretations in the moment when he was part of our team had the necessary resources to make critics, in his own way, these observations (Suciu 2015).

The filling of feature C<sub>23</sub> is black, pigmented with charcoal and adobe (plan 3). The depth of the feature is -2.2 m (from the actual walking level) and it has a length of 7.1 m and a width of 4.45 m.

In the new researches from 2011 it can be noticed, in sector A (towards the extreme eastern side of the excavations – plan 1a), and other constructions of this horizon which is – considering our observations – the third moment of architecture from the Turdaş site, the older excavations 1992-1995 (level II – superior) (plan 1b)( Luca 2001), and in the ones from 1996-1998 it was identified a level that was as a lid over level II – superior, towards the eastern side of the site (Luca *et al.* 2017). The fact that these constructions with levels, rectangular at the base, have much smaller dimensions (plan 1b) than the ones from the "neighborhoods" researched by us in the center-western side of the settlement (Lazarovici *et al.* 2014), makes us think to an staging of the apparition of this type of constructions at Turdaş (from the smaller-sized ones, isolated, towards the most crowed neighbors, with two or three stages of construction/reconstruction). In A zone it seems like there are the oldest surface constructions with quadrangle foundation sustained by massive wood poles (plan 1b).

### **The description of the ceramic archaeological materials**

**Fig. 1.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: whitish-brick-like; interior colour: brick-like; temper: fine sand, chaff; surface treatment: very good; firing: very good; décor: incisions, elongated thrusts.

2. Category: fine; exterior colour: whitish-coffee-like; interior colour: coffee-like with brown burning spot; temper: sand, mica; surface treatment: good; firing: good; décor: incised-pointed strip.
3. Category: fine; exterior colour: brown with yellowish burning spot; interior colour: dark brown; temper: sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.
4. Category: fine; exterior colour: whitish-coffee-like; interior colour: coffee-like with brown burning spot; temper: sand, mica; surface treatment: good; firing: good; décor: incised-pointed strip.
5. Category: fine; exterior colour: brick-like with brown burning spot; interior colour: brick-like; temper: fine sand, silt, mica, ochre; surface treatment: good; firing: good; décor: incised-pointed strip.
6. Category: fine; exterior colour: reddish; interior colour: brick-like; temper: fine sand, mica; surface treatment: poor; firing: very good; décor: incisions, point.
7. Category: fine; exterior colour: light brown; interior colour: light brown with dark brown burning spot; temper: fine sand, silt, mica; surface treatment: good; firing: very good; décor: incised-pointed strip.
8. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: very good; firing: very good; décor: incised-pointed strip.
9. Category: fine; exterior colour: light-brown; interior colour: coffee-like; temper: sand; surface treatment: good; firing: very good; décor: incisions, points.
10. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: sand, mica; surface treatment: good; firing: good; décor: incised-pointed strip.
11. Category: fine; exterior colour: grey with brick-like firing spot; interior colour: brick-like; temper: fine sand, mica; surface treatment: very good; firing: very good; décor: incised-pointed strip.
12. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, mica; surface treatment: good; firing: good; décor: incised-pointed strip.

**Fig. 2.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: whitish-brick-like; interior colour: whitish-brick-like; temper: sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.
2. Category: fine; exterior colour: whitish-coffee-like; interior colour: coffee-like; temper: sand, mica; surface treatment: good; firing: very good; décor: incisions.
3. Category: fine; exterior colour: whitish-brick-like; interior colour: whitish-brick-like; temper: fine sand, mica; surface treatment: good; firing: very good; décor: incisions, points.

4. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: good; firing: very good; décor: fine incisions.
5. Category: fine; exterior colour: coffee-like; interior colour: coffee-like; temper: fine sand, silt; surface treatment: good; firing: very good; décor: incisions.
6. Category: fine; exterior colour: brick-like; interior colour: dark-brown; temper: fine sand, silt, mica; surface treatment: good; firing: good; décor: points.
7. Category: semi-fine; exterior colour: dark-brown; interior colour: brick-like; temper: large grain sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.
8. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt, mica; surface treatment: very good; firing: good; décor: incisions, points.
9. Category: fine; exterior colour: coffee-like; interior colour: coffee-like; temper: fine sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.
10. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: good; firing: good; décor: impressions made with an object.
11. Category: fine; exterior colour: brick-like with greyish-black firing spot (blacktopped); interior colour: brick-like; temper: fine sand, silt, mica; surface treatment: good; firing: good; décor: impressions made with an object.
12. Category: fine; exterior colour: dark brown; interior colour: dark brown; temper: fine sand, mica; surface treatment: good; firing: good.
13. Category: fine; exterior colour: whitish-coffee-like; interior colour: whitish-coffee-like; temper: fine sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.
14. Category: fine; exterior colour: whitish-coffee-like; interior colour: brick-like; temper: fine sand, silt, ochre; surface treatment: good; firing: very good.
15. Category: rough; exterior colour: reddish-brown; interior colour: dark brown; temper: large grain sand; surface treatment: good; firing: good.
16. Category: fine; exterior colour: whitish-coffee-like; interior colour: whitish-coffee-like; temper: fine sand, silt, mica; surface treatment: very good; firing: good; décor: fine incisions.
17. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: good; firing: good; décor: incisions, points.

**Fig. 3.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: sand, silt, mica; surface treatment: very good; firing: very good.

2. Category: fine; exterior colour: whitish-coffee-like; interior colour: whitish-coffee-like; temper: fine sand, silt, mica; surface treatment: very good; firing: very good.
3. Category: semi-fine; exterior colour: brick-like; interior colour: whitish-brick-like; temper: sand, silt; surface treatment: good; firing: good; décor: incisions, points.
4. Category: fine; exterior colour: brick-like; interior colour: brown-brick-like; temper: fine sand, silt; surface treatment: very good; firing: very good.
5. Category: fine; exterior colour: coffee-like with reddish burning spot; interior colour: coffee-like; temper: fine sand, silt; surface treatment: poor; firing: good.
6. Category: fine; exterior colour: brick-like; interior colour: light-brown; temper: fine sand, silt; surface treatment: good; firing: good; décor: incisions, points.
7. Category: fine; exterior colour: brow-brick-like; interior colour: brick-like; temper: fine sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.
8. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: very good; firing: good.
9. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt, mica; surface treatment: good; firing: very good; décor: incisions, points.
10. Category: fine; exterior colour: light-brown; interior colour: light-brown; temper: fine sand; surface treatment: very good (with remains of polishing at the exterior); firing: very good.
11. Category: fine; exterior colour: brick-like with light brown firing spot (blaktopped); interior colour: dark brown; temper: fine sand, silt, mica; surface treatment: very good; firing: good.
12. Category: fine; exterior colour: whitish-brick-like; interior colour: whitish-brick-like; temper: sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.
13. Category: fine; exterior colour: coffee-like; interior colour: whitish-coffee-like; temper: fine sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.
14. Category: semi-fine; exterior colour: light-brown; interior colour: whitish-coffee-like; temper: sand, mica; surface treatment: good; firing: good; décor: incisions.

**Fig. 4.** Turdaş-*Luncă* 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: greyish-black; interior colour: greyish-black; temper: fine sand; surface treatment: very good; firing: very good.
2. Category: fine; exterior colour: brick-like; interior colour: grey; temper: fine sand, silt; surface treatment: poor; firing: good.

3. Category: fine; exterior colour: whitish-brick-like; interior colour: whitish-brick-like; temper: sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.

4. Category: fine; exterior colour: light-brown; interior colour: light-brown; temper: fine sand, silt, ochre; surface treatment: good; firing: good.

5. Category: semi-fine; exterior colour: brick-like; interior colour: brick-like; temper: large grain sand, silt, ochre; surface treatment: good; firing: good; décor: thrust.

6. Category: semi-fine; exterior colour: brick-like; interior colour: whitish-brick-like; temper: sand, ochre; surface treatment: poor; firing: good; décor: impressions made with an object in the pot's rim.

**Fig. 5.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: coffee-like with dark-brown firing spot (blacktopped); interior colour: dark brown; temper: fine sand, silt, mica; surface treatment: very good; firing: very good.

2. Category: fine; exterior colour: coffee-like with dark brown firing spot; interior colour: dark brown; temper: fine sand; surface treatment: very good; firing: very good.

3. Category: fine; exterior colour: brown; interior colour: light-brown; temper: fine sand, silt, mica; surface treatment: very good (presents remains of peeled-off slip); firing: very good.

4. Category: fine; exterior colour: brick-like with greyish-black firing spot; interior colour: greyish-black; temper: fine sand, silt, mica; surface treatment: good; firing: good.

5. Category: fine; exterior colour: reddish-brown; interior colour: brick-like; temper: fine sand, silt, mica; surface treatment: good; firing: good.

6. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: very good; firing: very good.

7. Category: fine; exterior colour: reddish-brown; interior colour: reddish-brown; temper: fine sand, mica; surface treatment: very good; firing: good; décor: fine incisions.

**Fig. 6.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: brick-like; interior colour: light brown; temper: fine sand, silt; surface treatment: good; firing: good.

2. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt, ochre; surface treatment: poor; firing: good; décor: incisions, points.

3. Category: fine; exterior colour: whitish-brick-like; interior colour: coffee-like; temper: fine sand, silt; surface treatment: poor; firing: good; décor: incisions.



4. Category: semi-fine; exterior colour: brick-like; interior colour: whitish-brick-like; temper: sand, silt; surface treatment: good; firing: good; décor: incisions.
5. Category: fine; exterior colour: brown; interior colour: brown; temper: fine sand, silt, mica; surface treatment: very good; firing: good; décor: applications on the rim.
6. Category: rough; exterior colour: brick-like; interior colour: brick-like; temper: large grain sand; surface treatment: poor; firing: good.

**Fig. 7.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: reddish-brown; interior colour: coffee-like; temper: fine sand, silt, mica; surface treatment: good; firing: good.
2. Category: rough; exterior colour: dark-brown; interior colour: dark-brown; temper: mica, large grain sand; surface treatment: poor; firing: good.
3. Category: fine; exterior colour: reddish-brown with firing spots; interior colour: brown; temper: fine sand; surface treatment: very good; firing: good.
4. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt, mica; surface treatment: very good; firing: good.
5. Category: semi-fine; exterior colour: reddish-brown; interior colour: whitish-coffee-like; temper: sand, mica; surface treatment: good; firing: very good.
6. Category: fine; exterior colour: greyish-black; interior colour: greyish-black; temper: fine sand; surface treatment: very good (remains of peeled off slip at the exterior); firing: very good.
7. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: sand, silt, mica; surface treatment: very good; firing: good; décor: incisions, thrusts.

**Fig. 8.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: reddish-brown; interior colour: reddish-brown; temper: fine sand; surface treatment: good; firing: good; décor: incisions.
2. Category: fine; exterior colour: coffee-like; interior colour: whitish-coffee-like; temper: fine sand, silt, ochre; surface treatment: very good; firing: good.
3. Category: fine; exterior colour: brick-like with light-brown firing spot (blacktopped); interior colour: coffee-like; temper: fine sand, silt; surface treatment: very good; firing: good.
4. Category: fine; exterior colour: brick-like with greyish firing spot; interior colour: coffee-like; temper: fine sand, mica; surface treatment: very good; firing: very good.
5. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt, mica; surface treatment: very good; firing: good.
6. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: poor; firing: good; décor: incisions, thrusts.

7. Category: fine; exterior colour: light brown; interior colour: light brown; temper: fine sand, silt, mica, ochre; surface treatment: very good; firing: very good.

8. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: poor; firing: good; décor: incisions, thrusts.

9. Category: fine; exterior colour: brick-like with brown firing spot; interior colour: brick-like with brown firing spot; temper: fine sand, silt, mica; surface treatment: good; firing: good; décor: incisions, points.

**Fig. 9.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: whitish-brick-like; interior colour: whitish-brick-like; temper: fine sand; surface treatment: good; firing: good; décor: incisions.

2. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: sand; surface treatment: good; firing: good; décor: incisions, points.

3. Category: fine; exterior colour: light brown; interior colour: brick-like; temper: fine sand, silt, mica; surface treatment: good; firing: good; décor: incisions.

4. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt, ochre; surface treatment: good; firing: good; décor: incisions, points.

5. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt, ochre; surface treatment: good; firing: good; décor: incisions, thrusts.

6. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand; surface treatment: very good; firing: very good.

7. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: good; firing: good; décor: incisions, points.

8. Category: fine; exterior colour: light brown; interior colour: light brown; temper: fine sand; surface treatment: poor; firing: good; décor: incisions.

**Fig. 10.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: grey; interior colour: grey; temper: sand, silt, mica; surface treatment: very good; firing: very good; décor: painting with bitumen.

2. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: good; firing: good; décor: painting with bitumen.

3. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand, silt, mica; surface treatment: very good; firing: very good; décor: painting with bitumen.

4. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand, silt, mica; surface treatment: good; firing: very good; décor: painting with bitumen.

5. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand, silt; surface treatment: very good; firing: very good; décor: painting with bitumen.

6. Category: fine; exterior colour: yellowish-grey; interior colour: grey; temper: fine sand, silt, mica; surface treatment: very good; firing: good; décor: painting with bitumen.

7. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand; surface treatment: very good (with remains of polishing on the exterior); firing: good; décor: painting with bitumen.

8. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand, silt; surface treatment: very good; firing: good; décor: painting with bitumen both on the exterior and interior.

9. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand, mica; surface treatment: very good; firing: very good; décor: painting with bitumen.

10. Category: fine; exterior colour: yellowish-grey; interior colour: grey; temper: fine sand; surface treatment: very good; firing: very good; décor: painting with bitumen.

**Fig. 11.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: grey; interior colour: brick-like; temper: fine sand, silt; surface treatment: good; firing: good.

2. Category: semi-fine; exterior colour: reddish-brown; interior colour: reddish-brown; temper: large grain sand, silt; surface treatment: good; firing: good.

3. Category: fine; exterior colour: coffee-like; interior colour: whitish-coffee-like; temper: fine sand, silt, ochre; surface treatment: poor; firing: good.

4. Category: fine; exterior colour: coffee-like with brown firing spot; interior colour: coffee-like with brown firing spot; temper: fine sand, silt; surface treatment: good; firing: good.

5. Category: fine; exterior colour: brick-like; interior colour: dark brown; temper: fine sand, silt; surface treatment: poor; firing: good; décor: incisions, thrusts.

6. Category: fine; exterior colour: reddish-brown; interior colour: reddish-brown; temper: sand, silt; surface treatment: good; firing: very good; décor: incisions.

7. Category: fine; exterior colour: coffee-like; interior colour: brown; temper: fine sand; surface treatment: good; firing: poor; décor: incisions.

8. Category: semi-fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: good; firing: very good; décor: incised-pointed strip.

9. Category: semi-fine; exterior colour: brick-like with brown firing spot; interior colour: brick-like; temper: sand, mica; surface treatment: good; firing: very good.

**Fig. 12.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: dark-brown; interior colour: brick-like; temper: fine sand, silt; surface treatment: very good; firing: good; décor: incisions.

2. Category: semi-fine; exterior colour: light brown; interior colour: whitish-coffee-like; temper: sand, silt; surface treatment: good; firing: poor; décor: incisions, points.

3. Category: semi-fine; exterior colour: light brown; interior colour: coffee-like; temper: sand; surface treatment: good; firing: good.

4. Category: fine; exterior colour: greyish-brick-like; interior colour: whitish-brick-like; temper: fine sand, silt; surface treatment: very good; firing: very good; décor: incised stripes filled with short thrusts, incisions, slots.

5. Category: fine; exterior colour: dark brown with yellowish firing spot; interior colour: dark brown; temper: fine sand, silt, mica; surface treatment: good; firing: good.

6. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: good; firing: good; décor: incisions.

7. Category: semi-fine; exterior colour: brick-like; interior colour: brick-like; temper: sand, silt, mica; surface treatment: poor; firing: good; décor: impressions on the bottom of the pot.

8. Category: fine; exterior colour: light brown; interior colour: dark brown; temper: fine sand; surface treatment: good; firing: good; décor: incisions on the bottom of the pot.

9. Category: fine; exterior colour: whitish-brick-like; interior colour: whitish-brick-like; temper: sand, mica; surface treatment: very good; firing: very good; décor: two perpendicular incisions on the bottom of the pot.

10. Category: fine; exterior colour: dark brown with yellowish firing spot; interior colour: dark brown; temper: sand, mica; surface treatment: good; firing: good; décor: two perpendicular incisions on the bottom of the pot.

**Fig. 13.** Turdaş-Luncă 2011. Feature 23. Pottery.

1. Category: fine; exterior colour: light brown; interior colour: dark brown; temper: fine sand, silt, mica, ochre; surface treatment: very good; firing: good; décor: incisions on the bottom of the pot.

2. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt; surface treatment: very good; firing: good; décor: perpendicular incisions on the bottom of the pot.

3. Category: fine; exterior colour: brick-like with light brown firing spot; interior colour: dark brown; temper: fine sand, silt; surface treatment: very good; firing: good; décor: impression on the bottom of the pot.

4. Category: fine; exterior colour: brick-like; interior colour: brick-like; temper: fine sand, silt, mica, ochre; surface treatment: good; firing: good; décor: incisions on the bottom of the pot.

5. Category: rough; exterior colour: brick-like; interior colour: brick-like; temper: large grain sand; surface treatment: poor; firing: good; décor: incisions on the bottom of the pot.

6. Category: semi-fine; exterior colour: whitish-coffee-like; interior colour: whitish-coffee-like; temper: sand, mica; surface treatment: poor; firing: good; décor: dark brown painting.

7. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand, mica, a small quantity of slit; surface treatment: very good; firing: good; décor: painting with bitumen.

8. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand, mica, a small quantity of silt surface treatment: very good; firing: good; décor: painting with bitumen.

9. Category: semi-fine; exterior colour: brick-like; interior colour: brick-like; temper: sand, mica; surface treatment: poor; firing: good; décor: dark colour painted.

10. Category: fine; exterior colour: grey; interior colour: grey; temper: fine sand, mica; surface treatment: very good (remains of polishing at the exterior); firing: very good; décor: painting with bitumen.

11. Bone fragment, decorated with dark brown painting.

### **General characteristics of the pottery**

The facture of the illustrated pottery is:

- fine: photo 5, 7; pl. I, III; fig. 1/1-12; 2/1-17; 3/1-13; 4/1-4; 5/1-7; 6/1-5; 7/1, 3-4, 6-7; 8/1-9; 9/1-8; 10/1-10; 11/1, 3-7; 12/1, 4-6, 8-10; 13/1-4, 7-8, 10;
- semi-fine: photo 6, 8; pl. II, IV; fig. 3/14; 4/5-6; 7/5; 11/8-9; 12/2-3, 7; 13/6, 9;
- rough: fig. 6/6; 7/2; 13/5.

The shapes of the pottery are (For the site from Turdaş, see: Luca 2001, 57-65; plates I-III (for all the research):

- A<sub>1</sub> – plain bowl with the walls splayed in an 45° angle (\*\* 2013, 13/down); variant without ornament, simple (\*\* 2013, 17/down) (photo 5, 8; pl. I, IV; fig. 5 – variant with the rim slightly splayed towards interior; 2-3, 5-6; 6/4; 8/1, 6; 8/9; 9/2-4, 5 – variant with the rim slightly splayed towards interior, 8);
- A<sub>1a</sub> – plain bowl with the walls splayed in an 45° angle, quadrilateral (fig. 8/1; 11/3-4, 6-8; 12/1-4; 13/4, 6-7 – due to the excessive fragmentation we can't make the reporting to variant A<sub>2a</sub>);
- A<sub>1b</sub> – plain bowl with the walls splayed in an 45° angle and four alveolar protomes on the rim (fig. 6/5);
- A<sub>1c</sub> – plain bowl the walls splayed in an 45° angle 45° and oval bottom (fig. 11/9; 13/5 – pots that we have not encountered – until now – at Turdaş);

- A<sub>2</sub> – plain bowl with the walls splayed in a larger then 45° angle (fig. 5/4, 7 – variant A<sub>4</sub>);
- A<sub>4</sub> – bi-truncated pot, unidentified until now by us at Turdaş (fig. 8/7 – variant at A<sub>4c</sub> (Luca 2001, pl. III/variant A<sub>4c</sub> ));
- B<sub>1</sub> – deep bowl with almost straight walls (fig. 7/7);
- B<sub>2</sub> – deep bowl with almost straight walls, slightly splayed (fig. 8/8);
- B<sub>3</sub> – deep bowl with almost splayed walls (photo 6-7; pl. II-III; fig. 6/2-3)(\*\*\* 2013, p. 18/up).
- B<sub>4</sub> – deep bowl with splayed walls, taller (fig. 7/5);
- B<sub>8</sub> – deep bowl with the walls splayed towards exterior, bi-truncated (fig. 13/6);
- C<sub>2</sub> – profiled pot, globular, with the rim perpendicular on the recipient's belly (fig. 4/3; 6/1; 10/8 – variant of the shape at for the fine category, painted);
- C<sub>3</sub> – fig. 10/1, 7, 9 – variant of the form for the fine species, painted;
- D<sub>1</sub> – globular pot, with the belly slightly splayed and without rim (fig. 7/1-2, 4, 6 – variant very splayed; 8/5; 9/1; 10/10 – variant of the form for the fine species, painted);
- D<sub>2</sub> – globular pot, with the belly slightly splayed and short rim (fig. 4/4; 7/3; 8/3);
- D<sub>3</sub> – globular pot, with the belly splayed and short rim (fig. 8/2);
- D<sub>5</sub> – globular pot, plate, with the neck of the recipient straight and taller, with handles (fig. 4/5-6; 12/5);
- F<sub>1</sub> – amphorae with the walls elongated and tall, cylindrical neck (fig. 4/6);
- G<sub>2</sub> – "fish tray", ovoid, with arcuate walls having the tendency for splaying and handles (fig. 6/6);
- G<sub>4</sub> – "fish tray", ovoid, with hollow for the licking of the liquid or for the firing wick (fig. 11/9 – oil lamp?);
- I<sub>1</sub> – full, with the hollow of the support slightly arcuate and wide base (fig. 11/1);
- I<sub>5</sub> – with ring shaped support and slightly pronounced hollow (fig. 11/3);
- I<sub>5a</sub> – with ring shaped support and pronounced hollow (fig. 11/2 – variant with the wall of the feet perpendicular on the base);
- J<sub>3</sub> variant of the shape: small altars that might be quadrilateral – (fig. 4/2).

In the end, we notice – rarely is true – the rims that are separated from the pot's body by the effect called *lippenrand* with a thickened rim (fig. 6/2; 8/1; 10/7, 9) and the rim cut straight (fig. 10/10).

**The ornamentation of the pottery is:**

**- incised**

- incised triangles, at approximately 45°, in opposite registers (photo 8; pl. I);

- incised triangles that start under the rim, limited with incised stripes, all filled with impressions/short cuts in Turdaş culture manner (fig. 8/9; 9/2, 4; 11/8 – towards the bottom of the pot the angle of intersection of the pointed-incised strips are rounding; 11/6 – with the point oriented towards the bottom of the pot; 12/2);

- incisions made in Turdaş culture manner, parallel stripes with the rim/under the rim with other triangular ones starting from the ones under the rim; filled with impressions/short cuts, parallel (photo 6; pl. II; fig. 1/2, 4-5, 7-10, 12; 2/2-4, 7-9, 12-13, 17; 3/3, 9, 12-13; 4/3; 8/8; 9/1);

- for the quadrangular pots ornamented in this manner it is being emphasized, sometimes, the quadrilateral angle, with short incisions, intersected from down towards up (fig. 12/4);

- at the quadrangular pots it appears, sometimes, a strip for emphasizing the inferior part of the bottom formed only of impressions/cuts grouped in stripes, without emphasizing with incision (fig. 12/6);

- incisions made in Turdaş culture manner, parallel stripes with rim/under rim, with other angular starting from the ones that are under the rim, filled with impressions/grouped cuts (fig. 2/1; 3/6);

- incisions made in Turdaş culture manner, large surfaces limited by incisions; filled with impressions/short cuts on the entire register (fig. 1/1, 3, 6; 4/5; 6/4; 8/6; 11/4-5);

- stripes made in Turdaş culture manner, filled with impressions/short cuts and parallel, perpendicular on the rim (fig. 9/5);

- incisions made in Turdaş culture manner, without the usual strictness of the décor (fig. 9/8);

- incised stripes filled with impressed points made with a stick or a bone object (fig. 1/11);

- parallel incisions, grouped by two-three (fig. 2/16);

- short cuts under the rim, perpendicular on it from which oblique incisions start (fig. 9/7);

- short cuts on the maximal proximity of the pot's belly (fig. 2/10-11);

- ornamented rims with short cuts, on the superior side (fig. 4/6).

#### **- incised signs**

- all over the pot

- ornament with anthropomorphic valences, incised (fig. 9/3);

- sacred ornaments (fig. 12/1).

- on the pot's base

- 7 short perpendicular incisions on another one; on the opposite side of the 7 incisions there is another one, oblique, short, easily distant (fig. 11/7);

- on the pot's bottom

- fig. 12/7 – 4 parallel impressions/incisions, perpendicular on the corner of the bottom, the pot being quadrilateral;

- fig. 12/8 – specific sign for Turdaş culture, stylized man;

- fig. 12/9; 13/4 – cross;

- fig. 12/10; 13/2 – cross with anthropomorphic sign;

- fig. 13/1 – 4 parallel lines displayed on the middle of the pot's bottom;

- fig. 13/5 – central incision what was made, towards the end, four short incisions/impressions perpendicular, left-right;

- signs made by impression**

- on the bottom of the pot

- fig. 13/3 – one round impression on the middle of the pot's bottom;

- painted ornaments**

- with black, the painting has the tendency to peel off from the pot's surface and it is being shiny (The observation made by H. Dumitrescu is identical with our own: Lazarovici, Dumitrescu 1985-1986, 9)(fig. 10/2 – the ceramic fragment is red coloured; 3 – the ceramic fragment has a light grey colour and 4-5, 7-9 (Dumitrescu 1984, pl. I/1, 3-6; II/1-2, 4-8, 14-15; Lazarovici, Dumitrescu 1985-1986, 9, pl. I/1, 3-6; II/1-2, 4-8, 14-15 – in fact, the same plate)) – the ceramic fragment have grey colour; the painted motives reflect the Turdaş culture fashion of covering with ornament the pot's body (as is the case of incision): the pot's rim is being covered with painting (sometimes also on the interior – fig. 10/8 (Dumitrescu 1984, pl. I/9; Lazarovici and Dumitrescu 1985-1986, pl. I/9 – in fact, the same plate) and from this touche placed on the rim start triangular motives, either in striped triangles finished with short touches, perpendicular on the end of the triangle (fig. 10/4-5, 7, 9), and at fig. 13/7-8, 10 there are the same type of ornaments and, in the end possible curved ornaments (fig. 10/8).

- with brown (fig. 10/1, 6, 10); the motive of the fragment from fig 10/1 can't be suspected; the ones from fig. 10/6, 10 seem to be identical with the one above described – painted with black, and in the case from fig 10/10 the pot is being well polished. The fragment from fig. 13/6 (Lazarovici, Dumitrescu 1985-1986, 9, pl. II/13 is painted with red; similar – as an idea of decoration – are the pots from pl. II/11 (it seems to be drawn banded at 180°) and II/12. More interesting is the fact that is being declared at p. 9 that these pots are well polished (as is for fig 10/10 at us), being painted with black or dark colour (pl. II/11-12 – quoted by us). Is being



ornamented with an oblique line towards the bottom and the one from fig. 13/9 has – after all the appearances – a trace of painting seeped toward the bottom of the pot in a manner that was already identified at Turdaş, and not only.

- Handles**
- horizontally perforated – fig. 2/13-14; 3/1, 7, 9-11; 4/1; 8/6, 8;
  - with anthropomorphic and zoomorphic attributes – fig. 3/1;
  - vertically perforated – fig. 3/5; 10/6; 12/5;
  - unperforated
  - handles/that can be grabbed – fig. 2/12, 15-16; 3/2-4, 6, 14; 5/7; 6/6; 7/5;
  - with anthropomorphic or zoomorphic attributes – fig. 3/8; 13/8;
  - small crescents – fig. 2/17; 3/12, 13; 6/3; 7/6; 8/9;

**Plastic art**

- amulet, concave, ornamented with thin incisions, which are made with the idea not to intersect, but forming four unequal plans which the surfaces that is being filled with small, oblique incisions. The piece has handles/ears vertically perforated, in the extension of the maximal diameter (\*\* 2013, 32/middle).

Archaeologic feature C<sub>23</sub> it is being dated by the research of the sample RoAMS-46.40 at 5932±29 BP (Luca *et al.* 2017). So, this dwelling is being dated – chronologically relative and in the general stratigraphy of the site – at the end of phase I of the culture (fig. 14).

We should also discuss some things about the painting from this archaeological feature (fig. 10). At Turdaş we can notice – in the systematical researches – the fact that it also appears the so called "Tăualaş" painting (Defined as it is by H. Dumitrescu: Dumitrescu 1984; term that was adopted in the historiography, without any desire to criticize, not being known clearly also on large surfaces the stratigraphy and stratigraphic connections from Deva-Tăualaş. Then, in collaboration with Gh. Lazarovici, a framing of the phenomenon was made, but in that époque of the scientific accumulated knowledge: Dumitrescu, Lazarovici 1985-1986) in features as hut B<sub>4</sub>/1995 (level II – inferior)(Luca 2001, p. 70, fig. 28/4-5). The similarities with our pottery from fig. 10/4-5, 7-9 are obvious. We mentioned, even since 1997 (Luca 1997, 253, pl. I/1-2; Luca 1997a, 74), the fact that the associations of the Tăualaş type paintings are obvious (At Orăştie-Dealul Pemilor, *punct X*<sub>2</sub>. Later, we showed also other analogies: Luca 2001, 133 (Călan-La Podină sau Zlaşti-Gruul lui Moş).

Also, we have to remember that in hut B<sub>1</sub>/1992 (level I) was discovered a painted fragment before firing, with a dark colour, the pot is well polished and has a chocolate-like colour (Luca 2001, 70, fig. 25/1). What is interesting is the fact that

the ceramic fragment published not at fig. 10/10 is similar with the one above mentioned, even only as facture, firing and colour of the painting.

At this moment, the most important thing seems to be, that we can affirm that the brown painting it is also applied on bones at Turdaş (fig. 13/11). If we are not mistaken, this is the first artifact of this kind discovered in the cultural area of Turdaş culture. Regarding its usage we can't find, at this moment, explanations.

These observations, but also the fact that they appeared in a close feature, clearly belonging to Turdaş culture, show – once again – the obvious connection of the Tăuălaş type painting, but also with another one, not considered until this moment, because of the relatively poor researches – both quantitatively and relatively – for Turdaş culture. The new researches, at a large scale, allow a redefinition of Turdaş culture, but – and more – the reconsideration of its connection with the Eastern world, but also the Western side of its areal of extension.

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### Figures

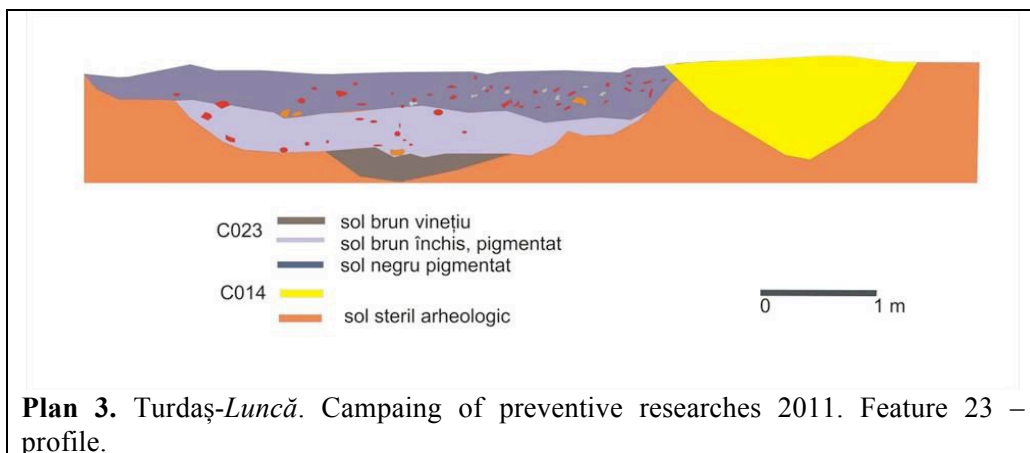
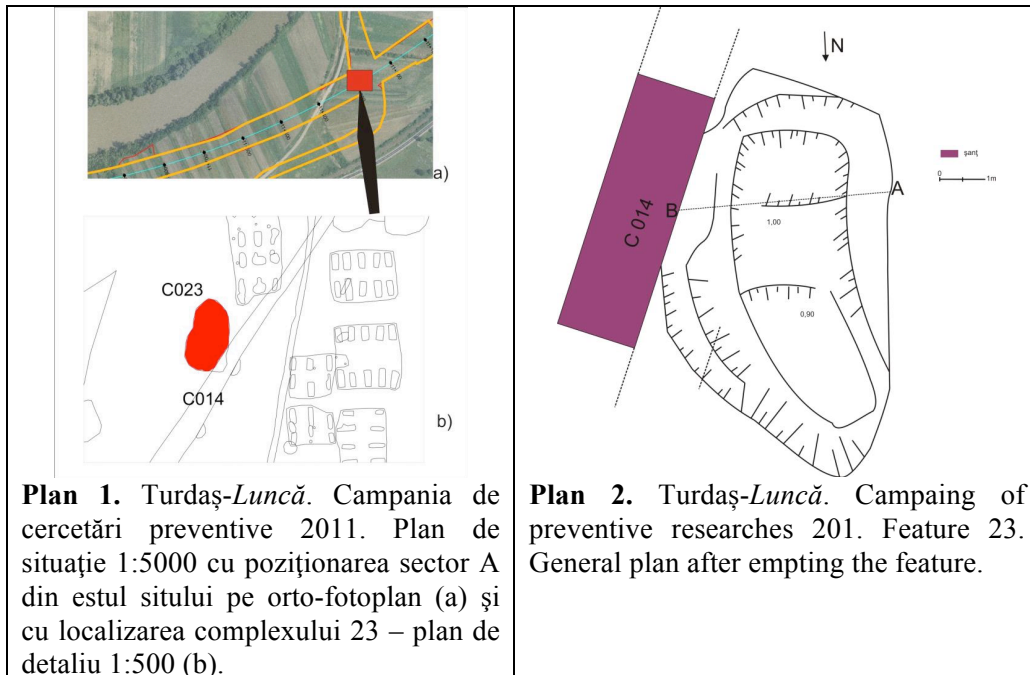
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### List of bibliographical abbreviations

ActaMN	<i>Acta Musei Napocensis</i> , Muzeul Național de Istorie a Transilvaniei, Cluj-Napoca
ActaTS	<i>Acta Terrae Septemcastrensis</i> , Universitatea „Lucian Blaga”, Sibiu
Apulum	<i>Apulum, Acta Musei Apulensis</i> , Muzeul Național al Unirii, Alba Iulia
AnB(SN)	<i>Analele Banatului (serie nouă)</i> , Muzeul Național al Banatului, Timișoara
Banatica	<i>Banatica</i> , Reșița
BB	<i>Bibliotheca Brukenthal</i> , Muzeul Național Brukenthal, Sibiu
BMA	<i>Bibliotheca Musei Apulensis</i> , Muzeul Național al Unirii, Alba Iulia
CCDJ	<i>Cultură și civilizație la Dunărea de Jos</i> , Călărași

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**Photo 1.** Turdaș-Luncă. Campaign of preventive researches 2011. Feature C<sub>23</sub>. Deliniation.



**Photo 2.** Turdaș-Luncă. Campaign of preventive researches 2011. Feature C<sub>23</sub>. *Cross section.*



**Photo 3.** Turdaș-Luncă. Campaign of preventive researches 2011. Feature C<sub>23</sub>. *Cross section.* Northern side.



**Photo 4.** Turdaș-Luncă. Campaign of preventive researches 2011. Feature C<sub>23</sub>. *Cross section.* Southern side.



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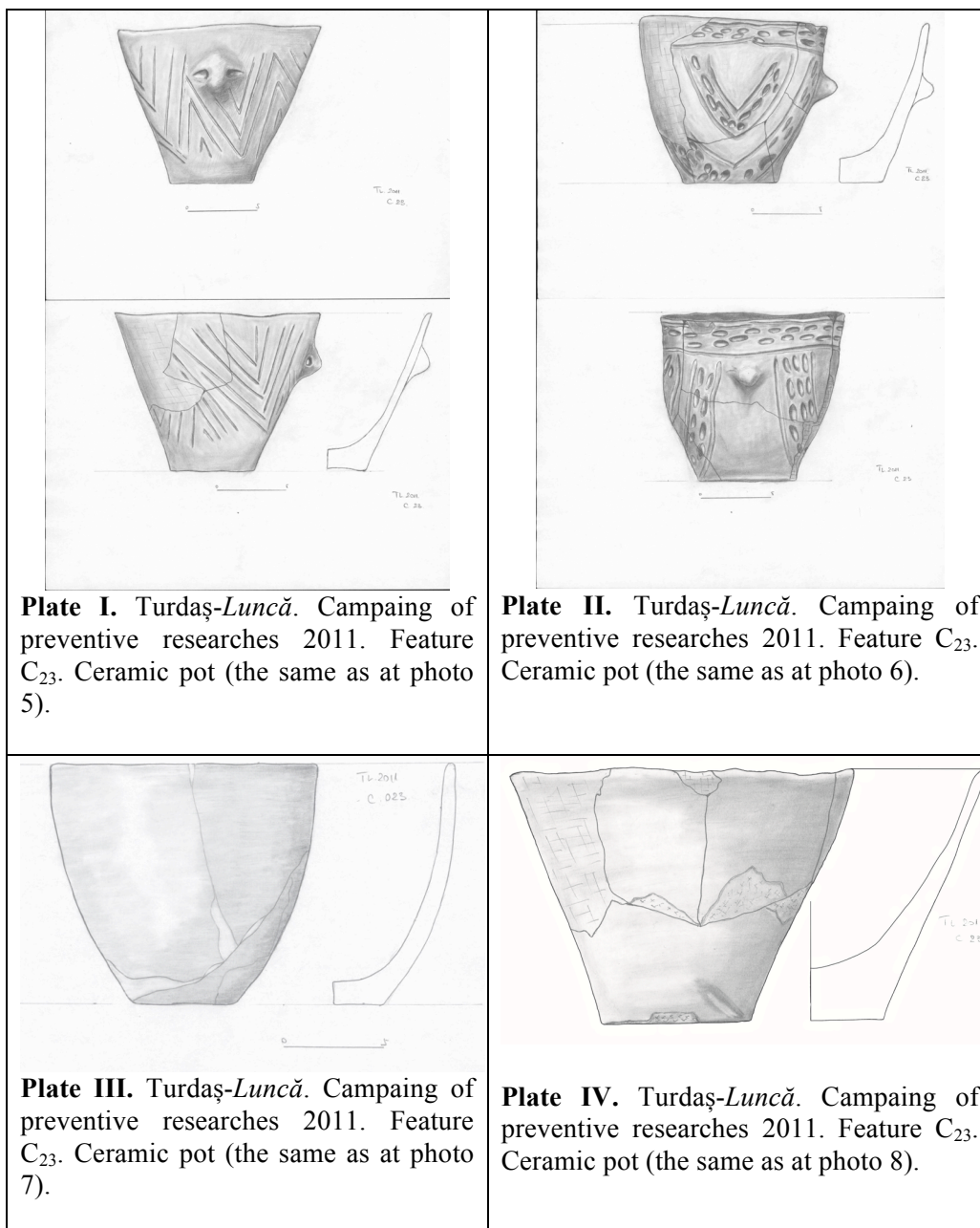


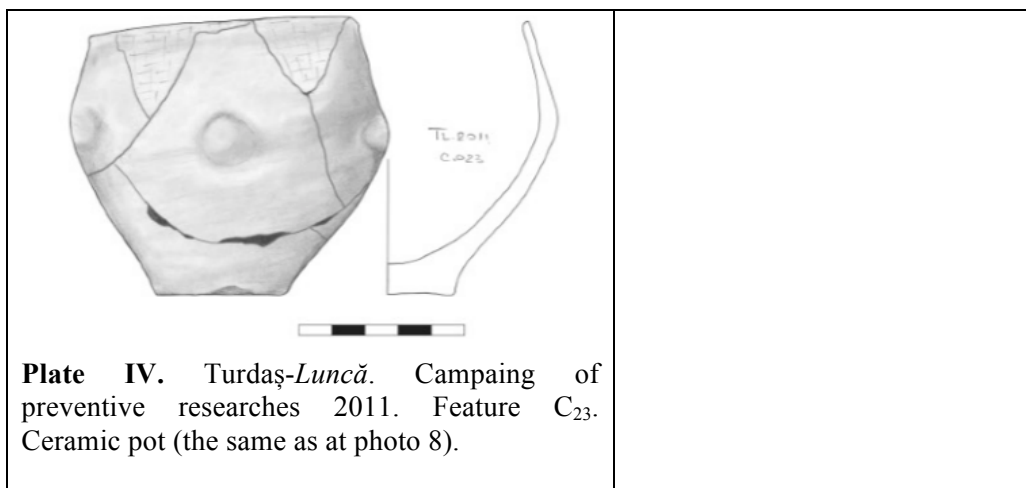


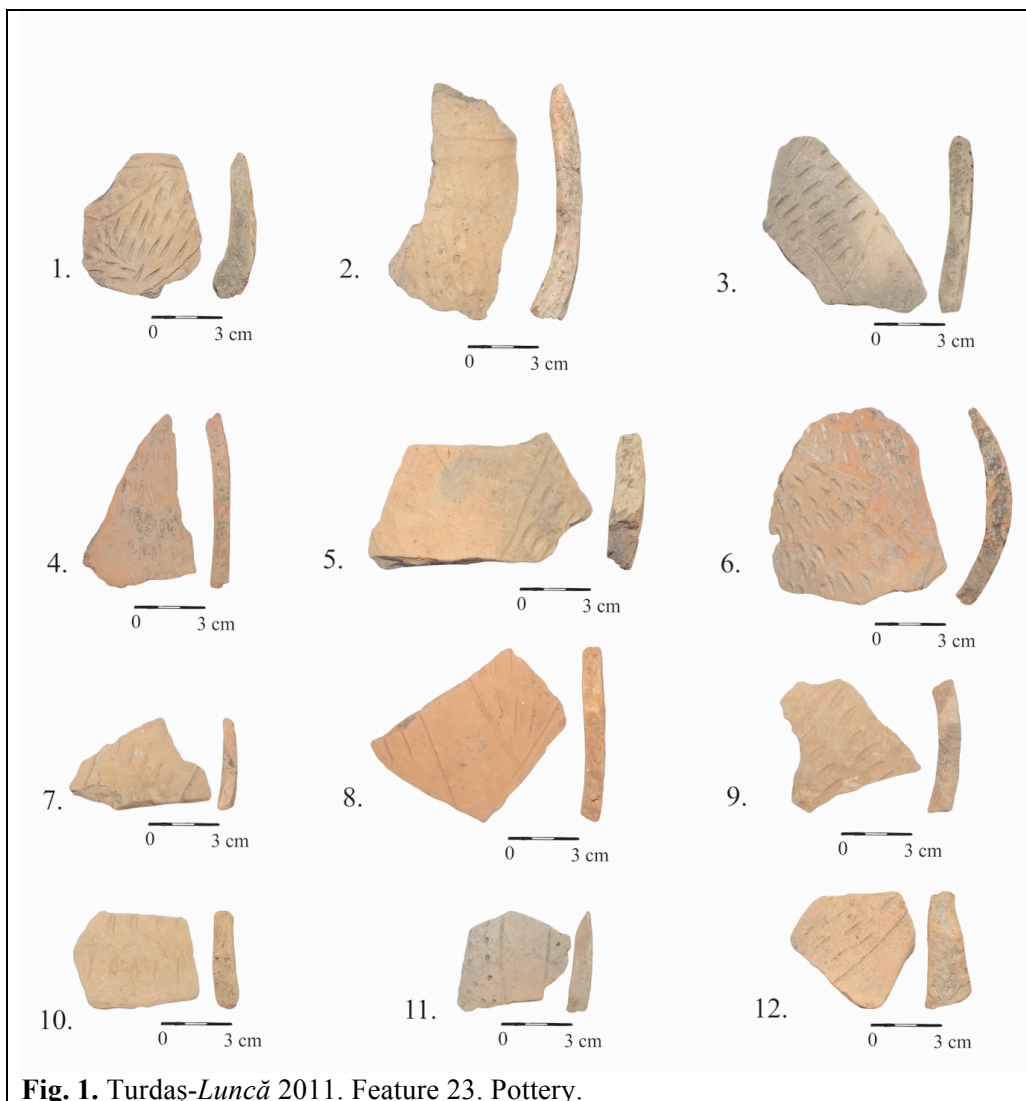
**Photo 7.** Turdaș-Luncă. Campaign of preventive researches 2011. Feature C<sub>23</sub>. Ceramic pot (also at pl. III).

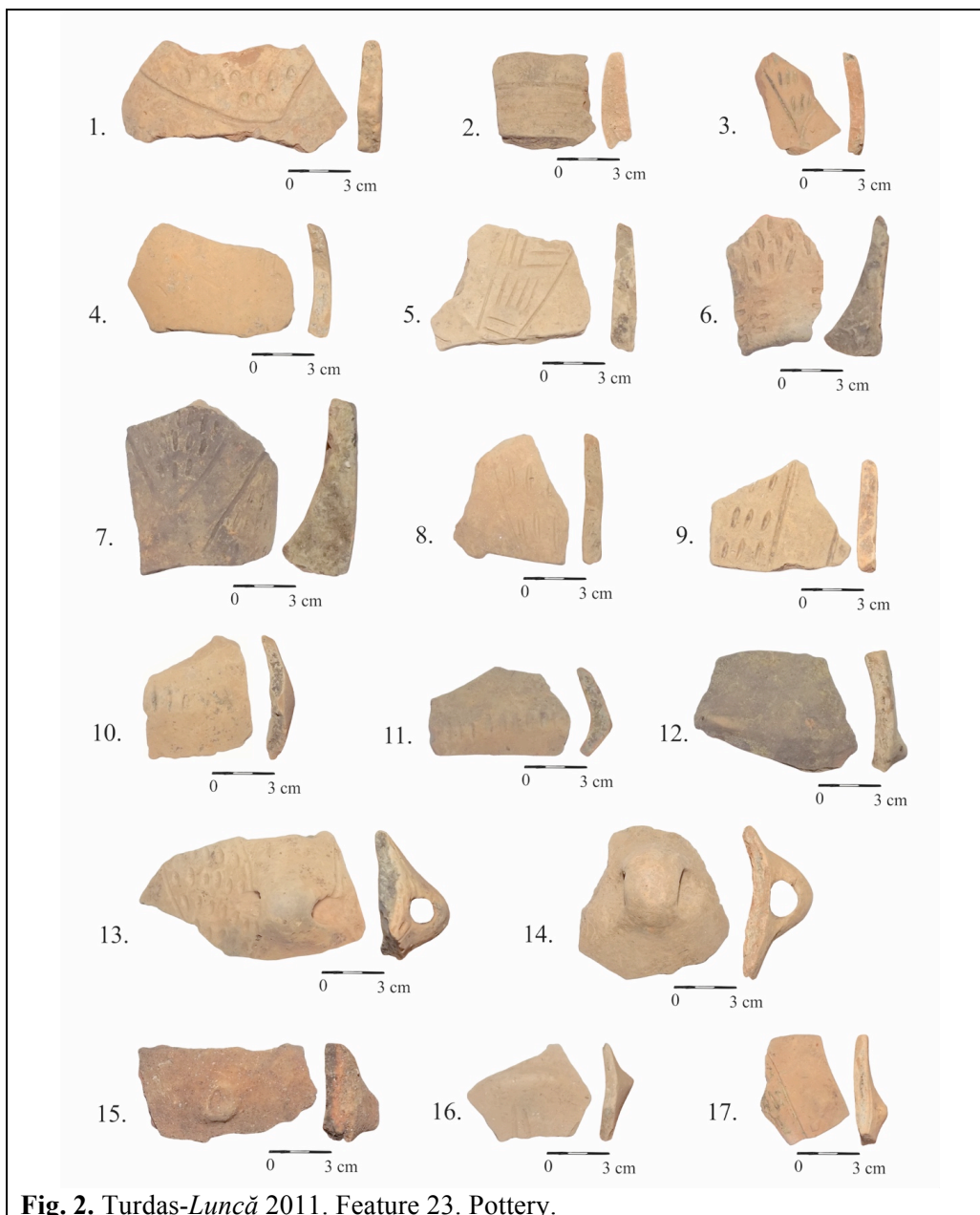


**Foto 8.** Turdaș-Luncă. Campaign of preventive researches 2011. Feature C<sub>23</sub>. Ceramic pot (the same as at pl. IV).

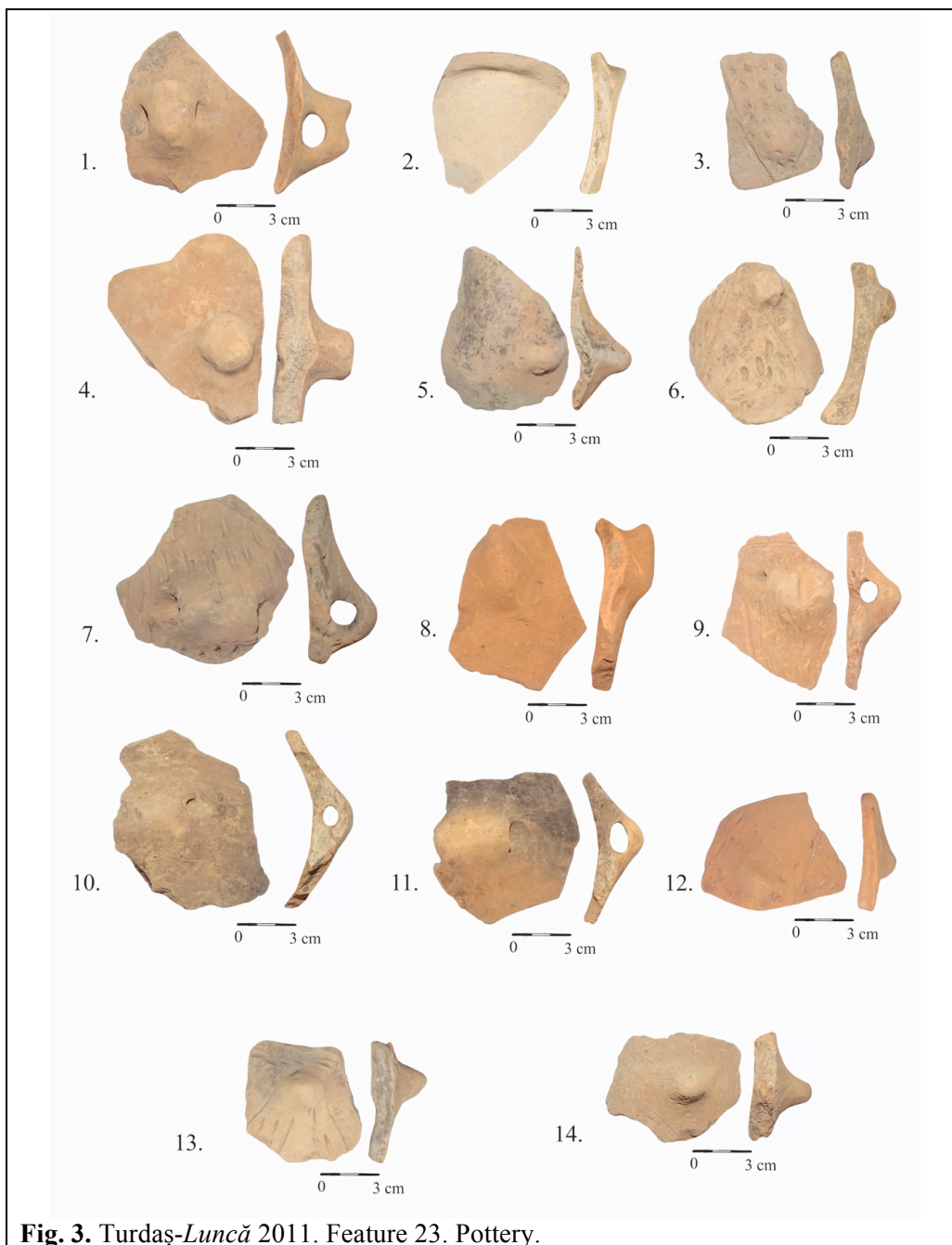




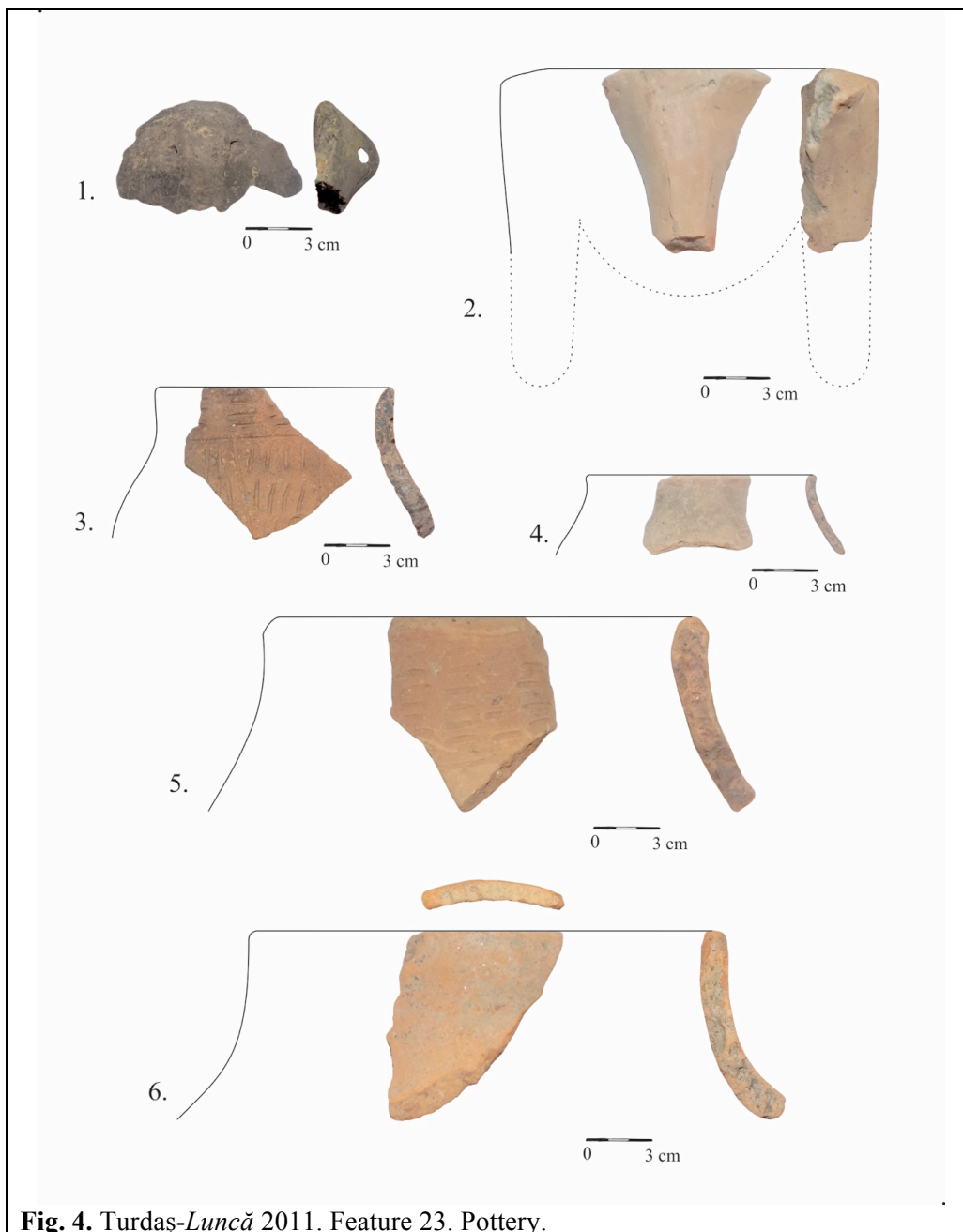




**Fig. 2.** Turdaș-Luncă 2011. Feature 23. Pottery.

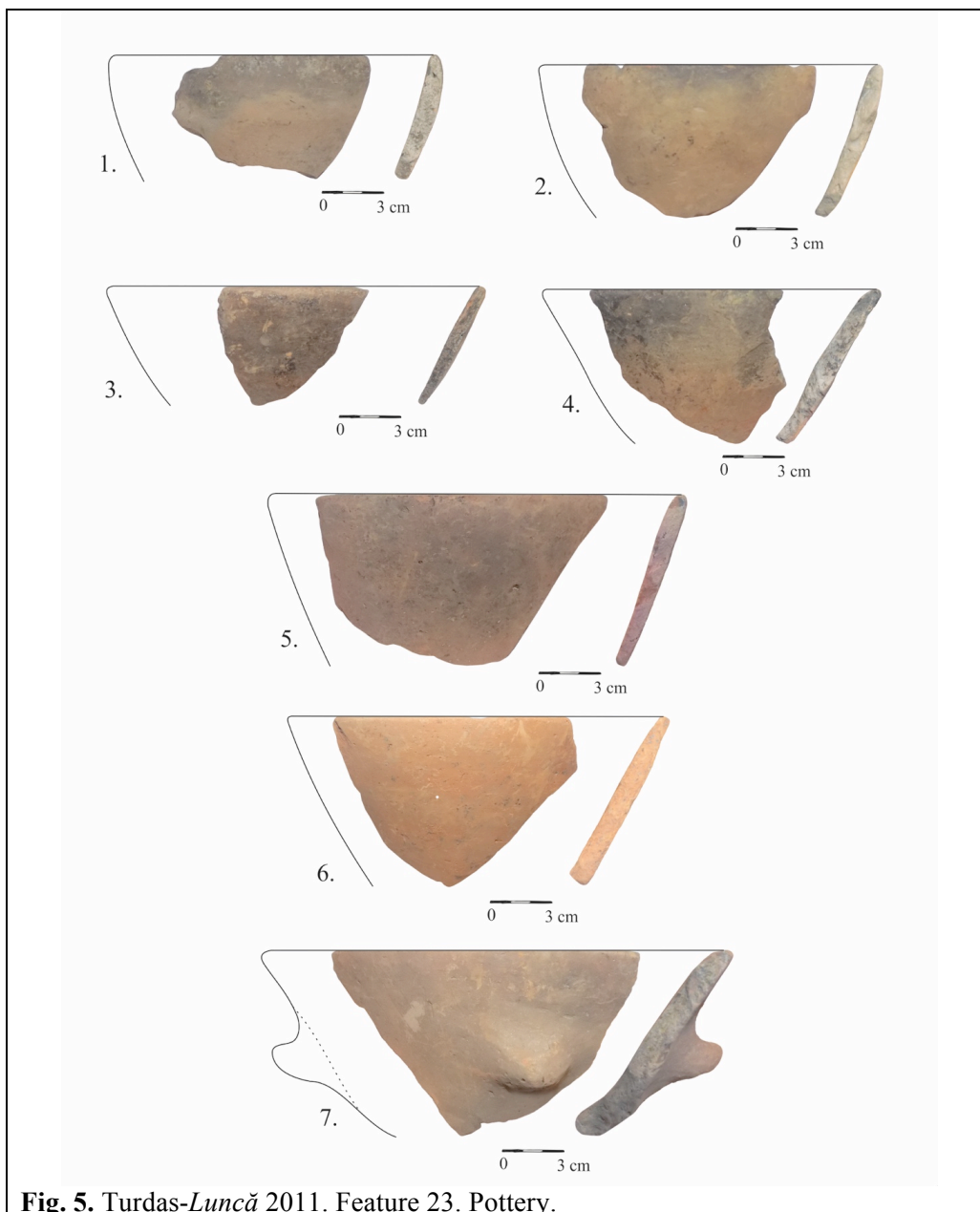


**Fig. 3.** Turdaș-Luncă 2011. Feature 23. Pottery.



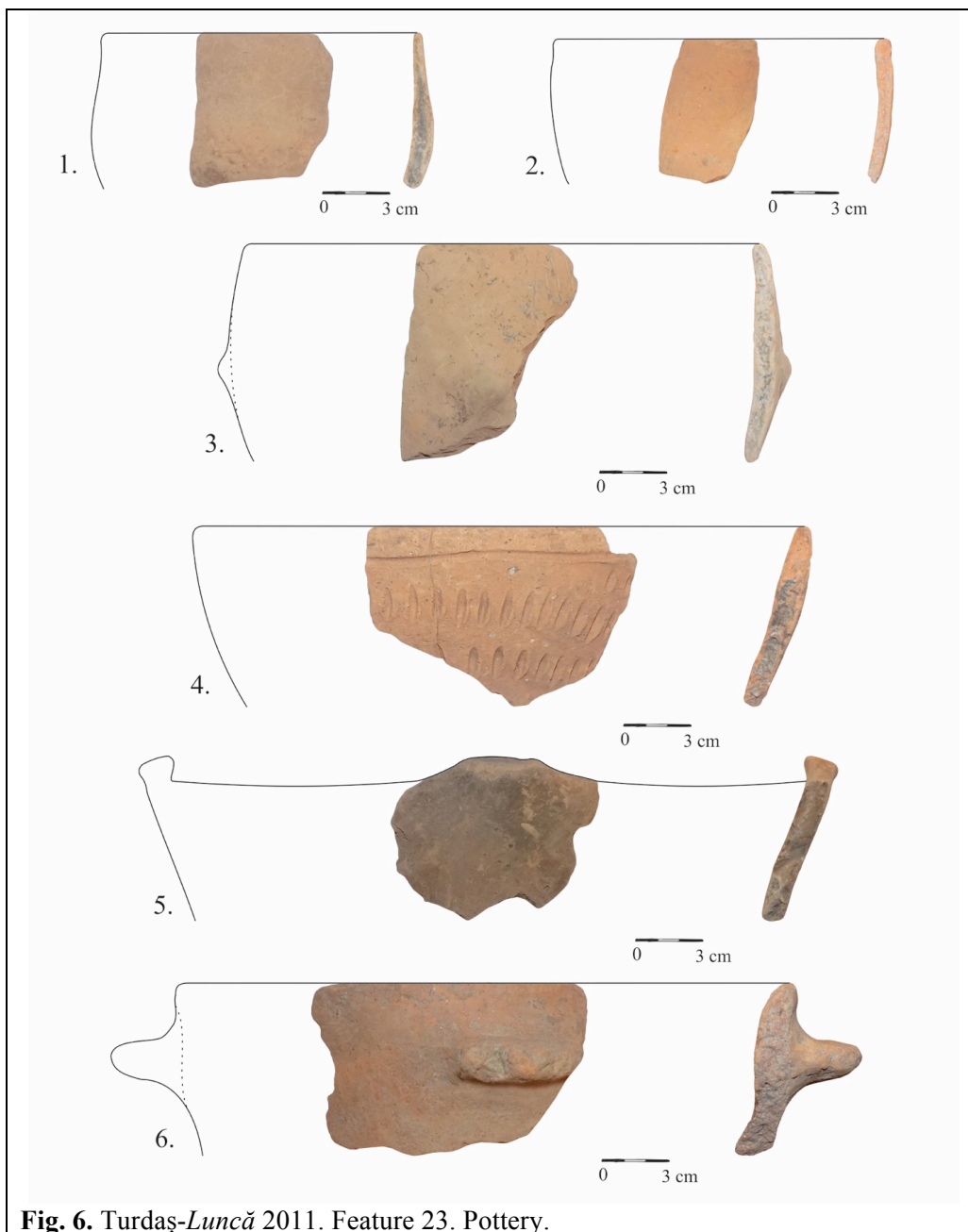
**Fig. 4.** Turdaș-*Luncă* 2011. Feature 23. Pottery.



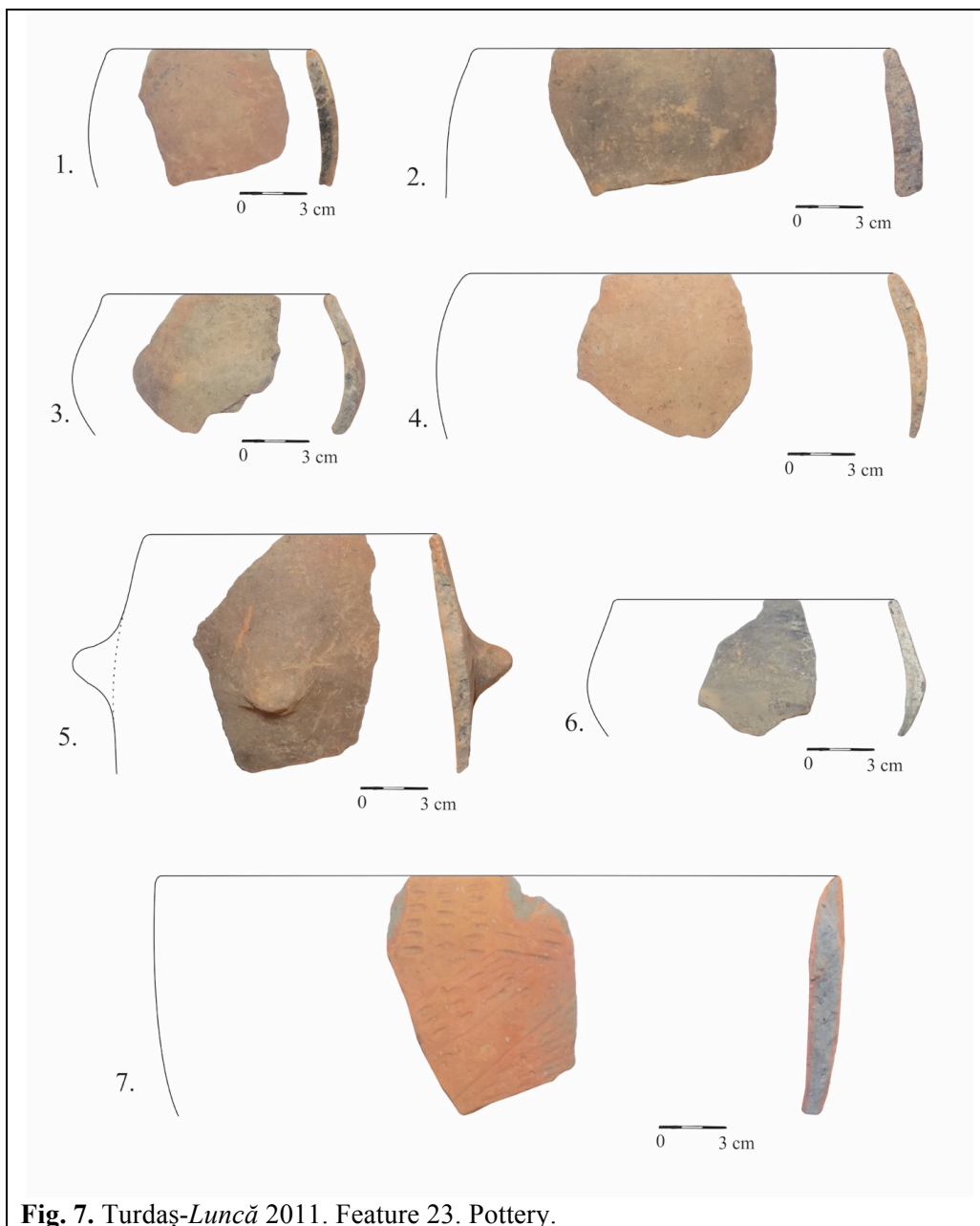


**Fig. 5.** Turdaș-Luncă 2011. Feature 23. Pottery.

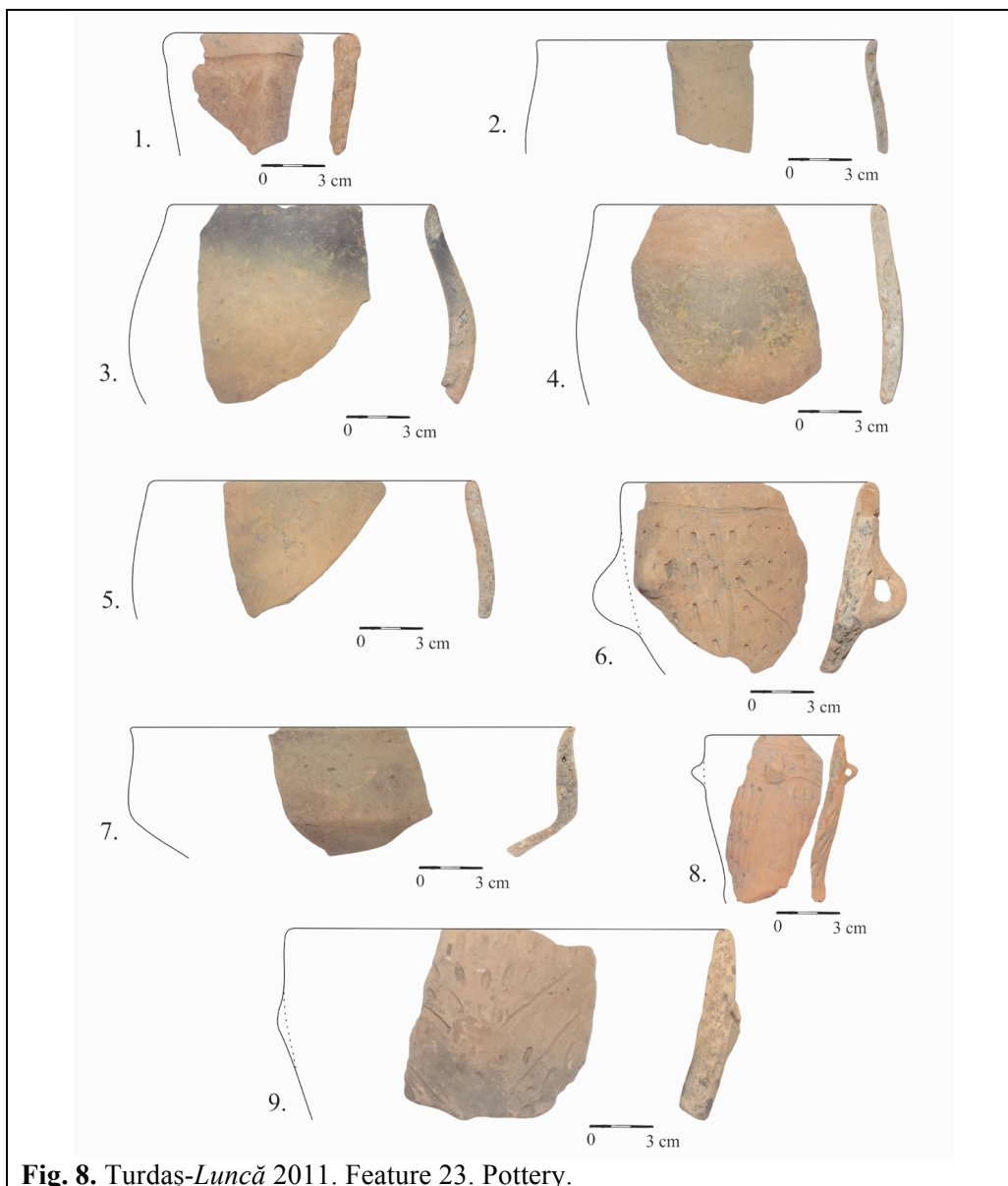




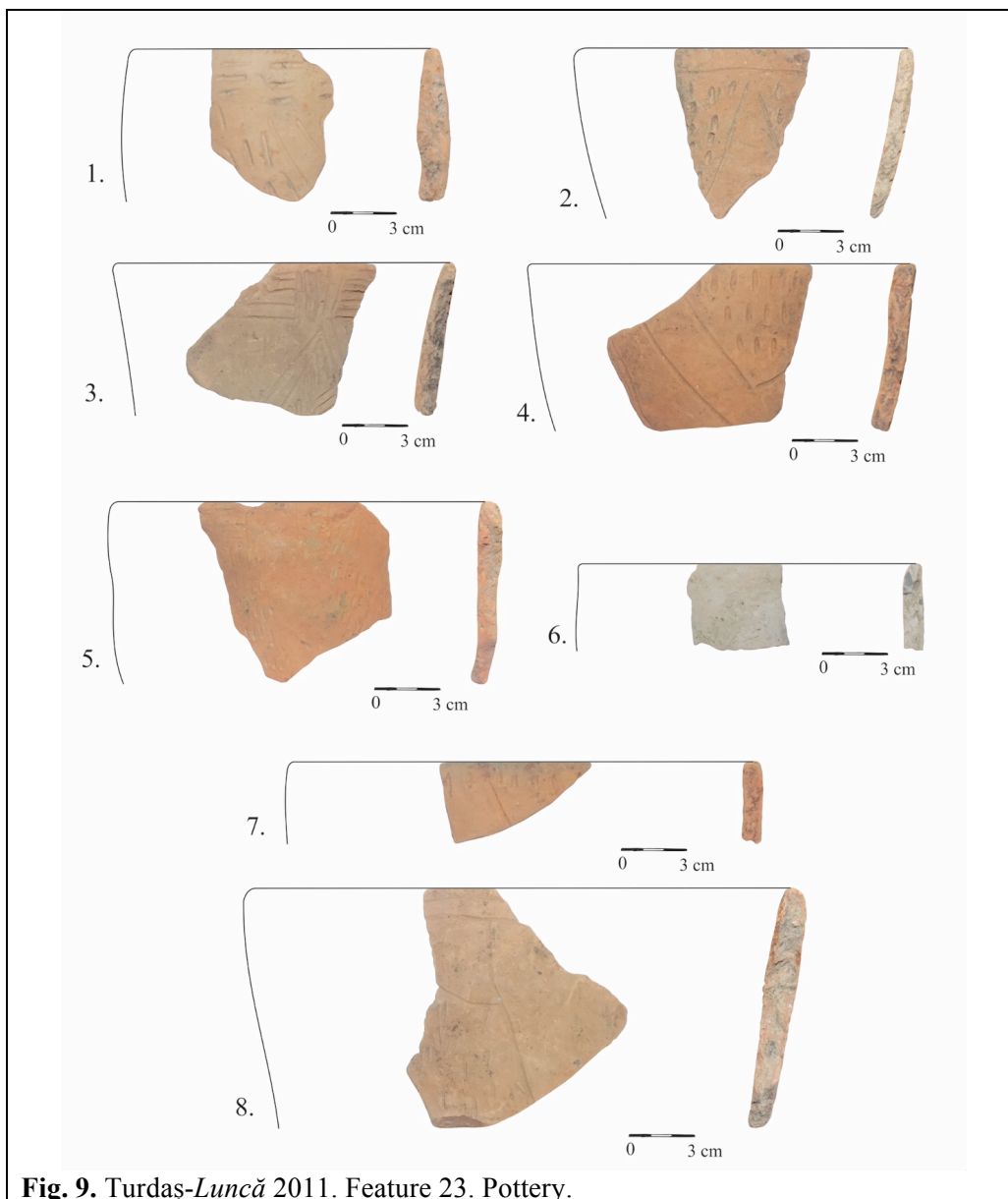
**Fig. 6.** Turdaș-Luncă 2011. Feature 23. Pottery.



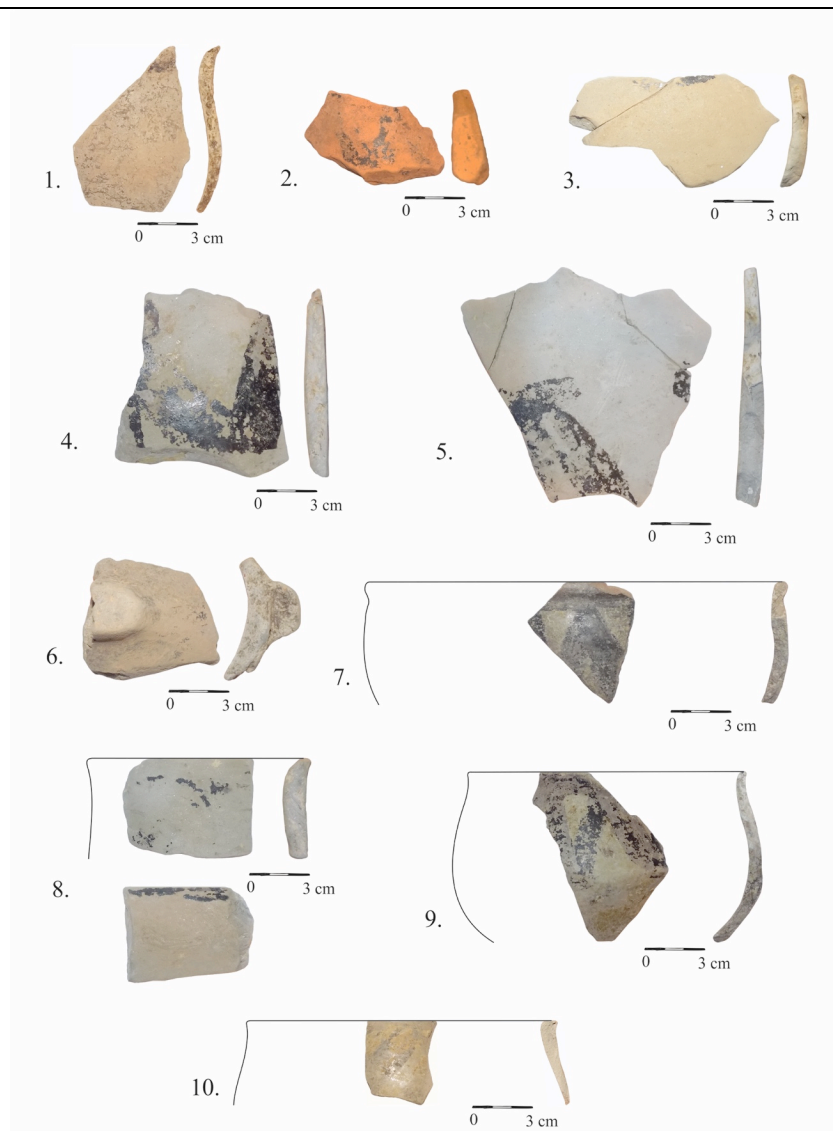
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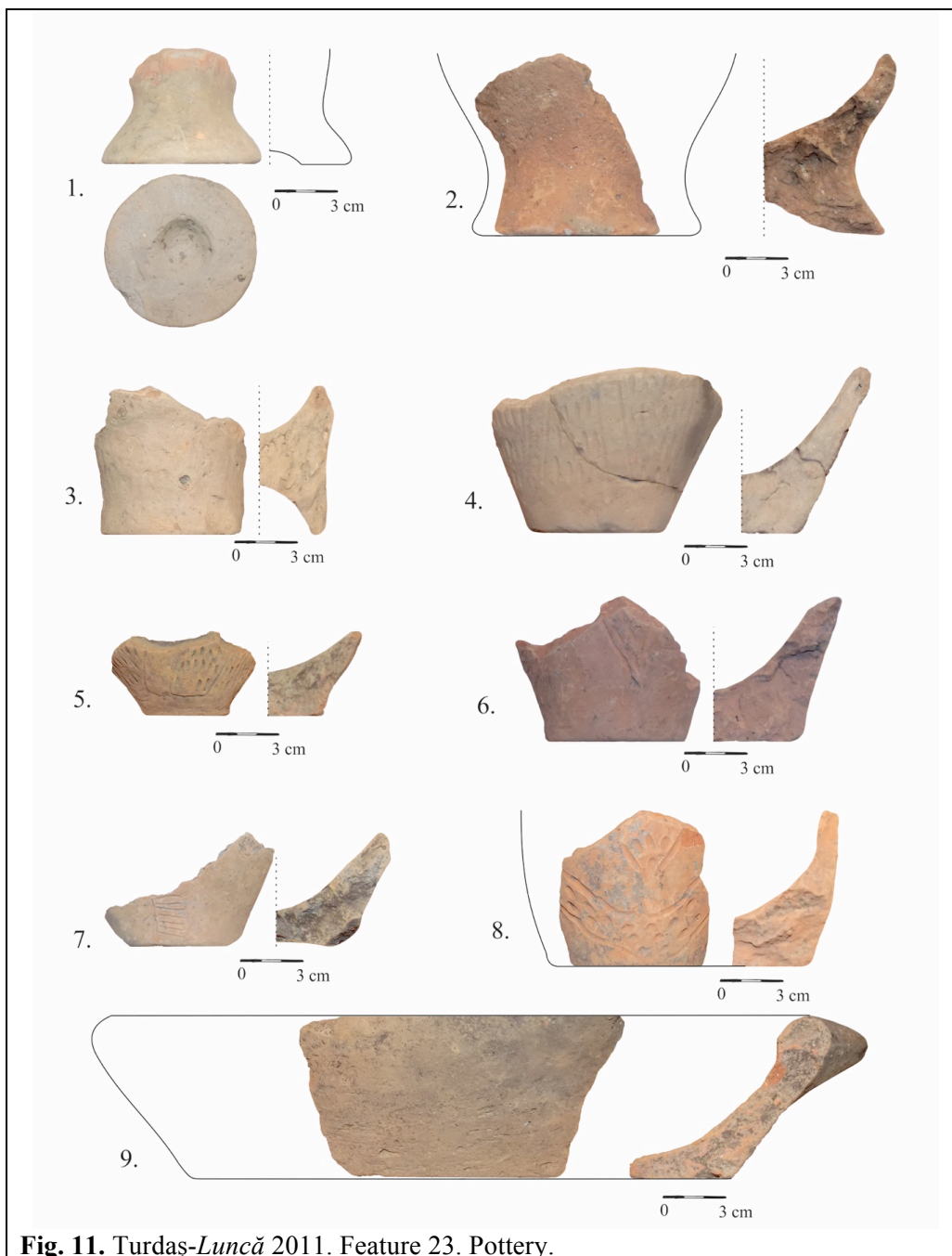
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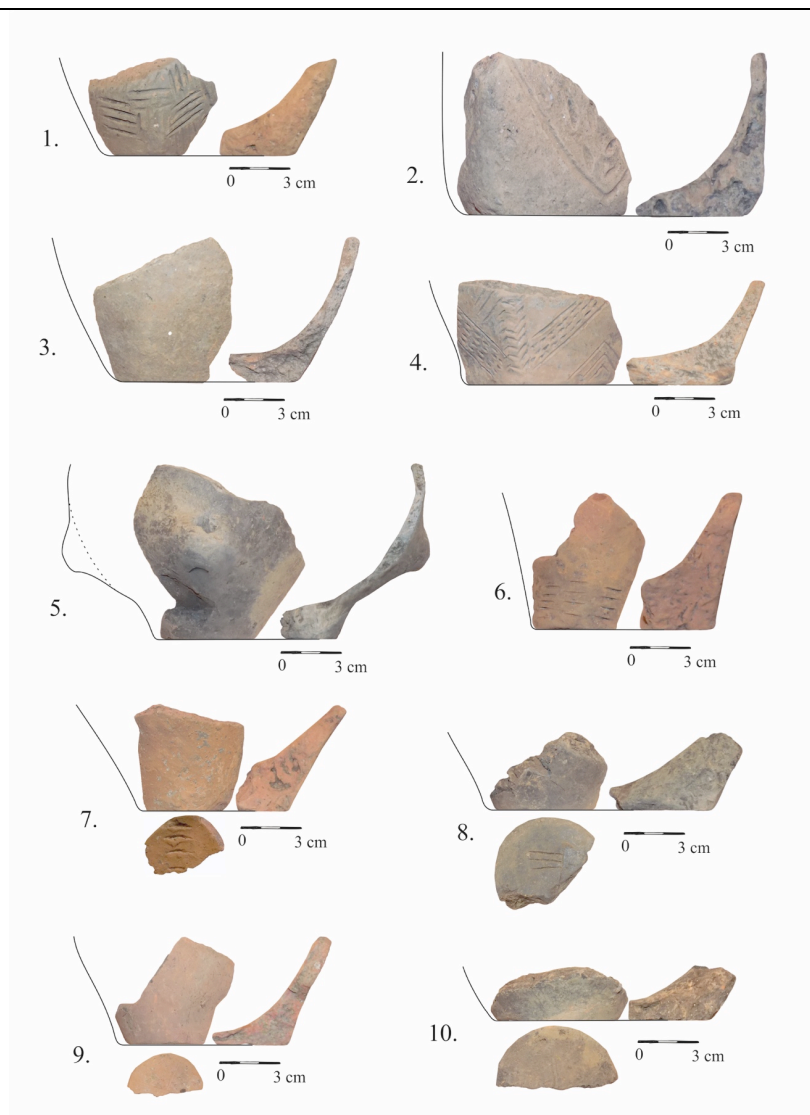
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**Fig. 10.** Turdaș-Luncă 2011. Feature 23. Pottery.

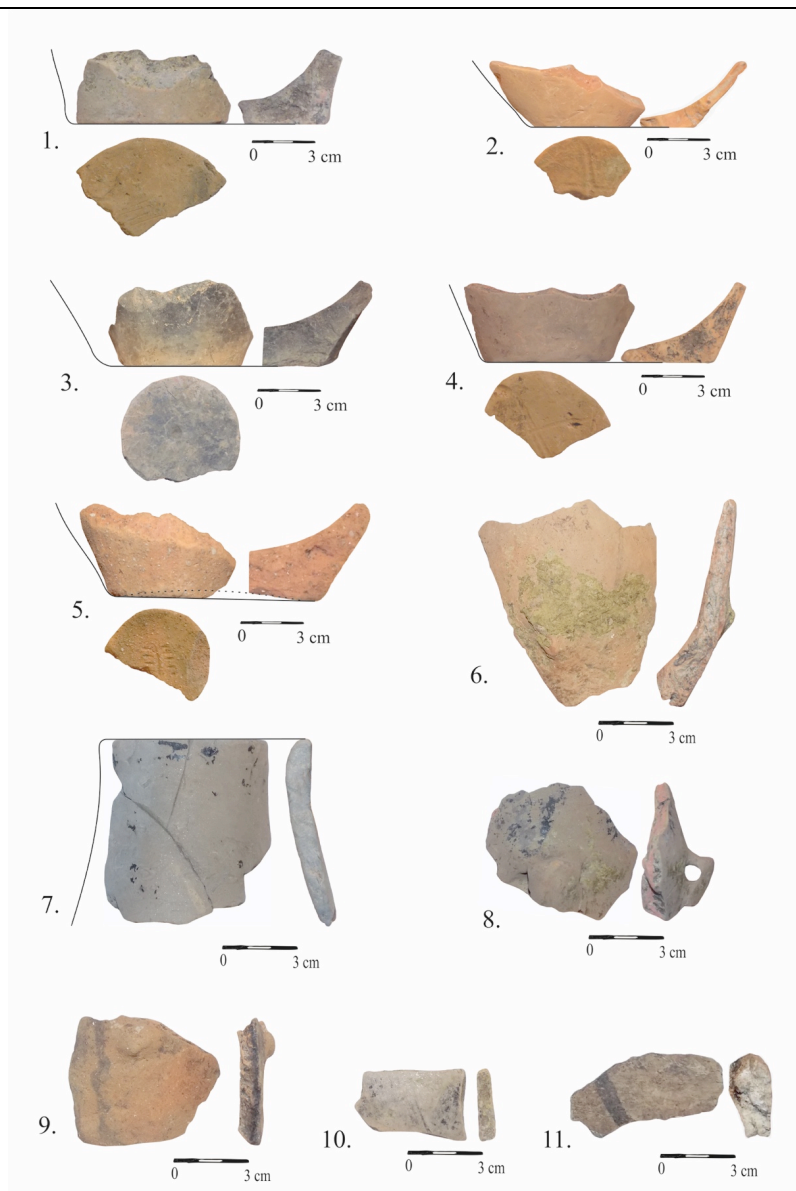


**Fig. 11.** Turdaş-Luncă 2011. Feature 23. Pottery.



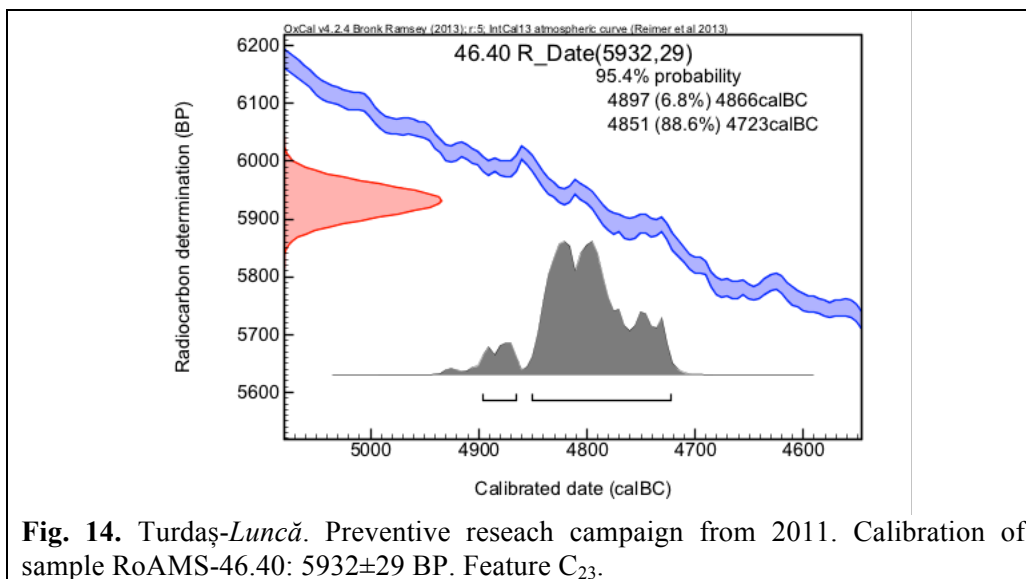
**Fig. 12.** Turdaș-Luncă 2011. Feature 23. Pottery.





**Fig. 13.** Turdaș-Luncă 2011. Feature 23. Pottery.





**Fig. 14.** Turdaş-Luncă. Preventive research campaign from 2011. Calibration of sample RoAMS-46.40: 5932±29 BP. Feature C<sub>23</sub>.



## UNDERWATER ARCHAEOLOGY MILITARY SHIPWRECK DISCOVERED IN THE BLACK SEA – ROMANIA

Laurențiu Marin DOBRE

**Abstract:** *Underwater archaeology is a new discipline that aims at studying and researching immersed cultural goods. In Romania the low interest in submerged scientific research has allowed amateur divers to take the initiative and develop exploration and investigations into the aquatic environment. The emulation at the level of diving associations and clubs and desire for sensationalism has stimulated and targeted the raids of the novelty amateurs to the military shipwrecks in the Black Sea and the Danube. The modern equipment and the documentary study help them substantially and the results are not a long time coming. Thus, images and objects belonging to standardized and well-preserved shipwrecks that have revived attention of specialists are brought to the surface. The Romanian submerged archaeological potential shown by discoveries made in the last century and the recent ones and the favourable legal framework emphasizes the necessity of a deep approach to underwater scientific sector.*

**Keywords:** *underwater archaeology, military shipwrecks, Arkadia, Moskva, Sulina.*

Together with the terrestrial and the underground world, the underwater blue is another universe with life (flora and fauna) that water barrier turned into an impregnable environment. The physical inability of our ancestors, from the early days of humanity, to penetrate into the depths of the seas and oceans of the world has created stories and myths about settlements and wrecks loaded with treasures buried deep underwater, which people still believe in today. The last two centuries, marked by an accelerated technical progress, have augmented the possibilities of conquest and exploitation of the depths and provided information and spectacular images.

Pursuing this, nowadays, more and more venturesome explorers plunge into the dark bottoms of the seas in search of rich artefacts, turning the investigations into fantastic diving. Meanwhile, scientists have developed a real underwater archaeological "industry" based on documentation, interdisciplinary working teams, special equipment and appropriate to aquatic environment, specific extraction and conservation techniques, etc.

As previously highlighted, underwater archaeology is a symbiosis of two radically different professions, diving and archaeology: diving, which is in a direct link to the report between physical training and health of the individual, and archaeology, which involves special training, both indispensable for the scientific underwater work. A professional dyad diving / research which should be equally

developed in parallel on the two levels, physical performance / scientific performance.

Underwater archaeology is a discipline subsequent to the general archaeology, aiming at searching, identifying, recovering, studying, conserving, preserving and scientifically reevaluating the historical submerged artefacts. Like terrestrial archaeology, underwater archaeology is an interdisciplinary activity, where we meet sciences specific to aquatic environment (marine science, aquatic / marine biology, marine geology, seamanship / navigation, ship building, etc.).

Genesis of this new research form takes place in France in the mid twentieth century, in the 40's and 50's, when Jacques-Yves Cousteau, naval officer, and Emile Gagnan, engineer, invented the breathing machine equipped with a regulator with "flow on demand"<sup>1</sup>.

The beginning of underwater archaeology in Romania is signed by Constantin Scarlat in the late 60's (20<sup>th</sup> century), when, the "god of propaganda and teaching" (Vulpe, Scarlat 1982, 7) of diving and underwater archaeology, pioneer in diving, underwater topography and cartography, made the first submerged discoveries of some shipwrecks, ancient things and draw the first sketches of ancient submerged settlements, the ports of Callatis and Tomis.

Aquatic archaeology evolution is pending to the diving technique and technology. Exploring the pelagic deep has proved more effective, especially in recent years, thanks to highly improved equipment and, of course, to the study and analysis of the historical sources written and unwritten, documents, archives and local legends that have materialized in artefacts recovered and brought to shore and more new historical-scientific information.

The working field of underwater research includes stagnant water bottoms (oceans, seas, lakes), the river beds (rivers, streams) and special areas (caverns and caves).

In our country areas abundant in immersed remains are on the banks of the Danube and the Black Sea coastline (settlements, hydro technical and port developments, wrecks, etc.).

Continuous habitation on the seashore, which over time has served as a source of food, transportation route and "natural wall" defence, has favoured the creation of a rich terrestrial and underwater archaeological heritage in this area.

The large surface of the sea, the great length of the coastline (245 km) and current technology did not allow the location of all submerged vestiges, situation that allowed for decision factors of the cultural heritage protection segment to rate the entire Romanian marine surface in the Historical Monuments List as "underwater

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<sup>1</sup> A device that provides an underwater breathing similar to terrestrial breathing by mouth aspiration of the respiratory gas with minimal effort.

archaeological site" - "Continental Shelf of the Black Sea Romanian seaside" - code L.M.I. CT-I-s-A-02561, thus providing an overall protection until relevant areas in terms of historical-scientific / archaeological purpose are identified.

Analysing the transformations of the Romanian seaside undergone in the last 2500 years, we notice a significant change in the geographical limits, expressed through a sanding north of Singol Cape (Fishery - Constanta), reflected by shore advancing broadly<sup>2</sup> and erosion of the beaches situated south of Constanta town, evidenced by sea advancing to dry land and a reconfiguration of the cliffs. Geophysical changes of the seaside, which on the one hand have covered the remains with slime, on the other hand have submerged settlements and hydro technical structures, have produced a "transformation" or a "grinding" of the archaeological material, interfering, obviously, in the degradation process. The phenomenon is most visible at the artefacts which inhabit near shore area where marine environment, Danube sand resulted from rocks and hard shells and, in particular, surf force act simultaneously. Regarding wrecks, if we consider that until the end of the Middle Age coastal navigation was practised and that most boats were small sized and made of wood, a large number of them lies near the coast covered by sand (north of Constanta<sup>3</sup>), or fall apart on the seabed (south of Constanta<sup>4</sup>).

Diving with an investigation purpose in the areas above mentioned requires an experienced and a physical condition above average of the divers, both qualities being needed to identify the remains<sup>5</sup> and to maintain a state of buoyancy "between the waters<sup>6</sup>", as the space in question is being frequently under currents and swell bottom. This is one of the reasons why many divers passionate about "searching the undiscovered" were led into the wide and, especially, towards large and made of iron shipwrecked vessels (easier to identify by the sonar and magnetic scan). The Black Sea – the Romanian seaside - compared to other seas or oceans is limited in terms of visibility, transparency of water; a large volume of Danube slimes are shed in the sea mostly through the Danube Delta, which are carried by northern marine currents along the coast towards south and together with waves, amplify water perturbation. Meanwhile, in the summer, warm water and vegetable environment enhance the opacity of the marine environment in shallow depths areas (0-10 meters).

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<sup>2</sup> As consequence of this action Histria bay was closed (Halmyris) and Razelm lake was formed.

<sup>3</sup> A wreck located abreast of the Midia-Năvodari petrochemical platform, at approx. 4 marine miles and three wrecks in Sulina.

<sup>4</sup> Wrecks from Eforie Sud and Costinești.

<sup>5</sup> The field evaluation and archaeological supervision or research.

<sup>6</sup> Expression used in diving slang meaning a depth given between the surface and the bottom of the water.

Under these circumstances most associations, clubs and diving schools have opted to carry out recreational, pseudo-archaeological activities at a large distance from the shore, during which they brought from the depths impressive images of shipwrecks full of history.

Among the most fascinating shipwrecks that seem to be in the top of the most popular ones for divers, media and experts are military vessels. Victims of armed confrontation, warfare (mine nets, floating mines, etc.) or mishaps, the military wrecks are spectacular by martial shapes displayed on the seabed. The underwater encounter with such a stranded war machine gives you a feeling of passing through the propylaea of eras, breaking the barrier of time and becoming contemporary with the wrecks.

It turned out that a substantial contribution in promoting and acknowledging the values of the underwater environment, particularly in the deep-sea area, proved to be held by associations, clubs and sporty and amateur diving schools from the seaside.

Aquarius Diving Center is one of the clubs of amateur divers on the shore that gathers around passionate individuals for incursions and deep-sea adventures and operates under the guidance of the binomial Romanian-Dutch Doina Culea Geonă/Harry Bakker, a diving school with over 10 years of activity. Under the leadership of Harry Bakker, the team has the most prodigious submerged activity of profile clubs. Having hundreds of dives, Aquarius Diving Center boasts with a rich library of photos and videos of their immersions, but also with an enviable record on underwater discoveries (civilian and military wrecks - notably from the Second World War - *Arkadia*, *Mosckva* *SHCH 213 submarine*). The club activity has proved over time, through its activities, respect for the environment and science materialized by the collaboration with specialists and competent institutions.

## **I. ARKADIA – THE MYSTERIOUS “BREMEN”**

In the mid 80's military divers announced that during training diving they found the wreck of a stranded cargo called BREMEN, sunk most likely in the Second World War. During the immersions that soldiers did to the ship they found and brought to the surface the ship bell, which currently is mounted on the command bridge of the "281" Romanian military ship. The inscription on the exterior of the bell, AMSEL BREMEN, has accredited the idea that the wreck is called BREMEN. (Fig. No. 1) There are statements of some military divers who descended to the relics vessel in the 80's, according to which on the bridge of the ship would have been found two small cannons that were dismantled and brought to the surface, but there are no details regarding this intervention and the place where the pieces now stand.

In the years that followed, the wreck came into obscurity and gradually was forgotten.

After 2000 the wreck and diving enthusiasts resume searches for BREMEN cargo in a qualified manner. The documentary analysis of the perimeter pointed out by the military and the study has brought them, paradoxically, in front of a cargo vessel with the shipwrecked characteristics, but named ARKADIA. (Fig. No. 2) According to the archives, in April 1943 the vessel was sailing under German flag and had left the soviet port Sevastopol heading south, and that on 29 April 1943 ARKADIA had ended in the S-57 (Albu 2014)<sup>7</sup> mine net, which protected the port of Constanta.

In the summer of 2007, after several diving sessions, the Aquarius Diving Center club members rediscover the remains of Arkadia travers from Mamaia resort, GPS coordinates 44°18.440' North latitude and 28°48.430' East longitude. (Fig. No. 3).

By modern methods of investigation (3D scanning) the team of amateur divers bring a three-dimensional image of the wrecks emerged, offering precious details on the settlement of the wreck on the seabed, the technical-physical characteristics, positioning of the vessel components, configuration of underwater relief and visiting possibilities in safe conditions. This information removes / simplifies the precursory steps, respectively diving for perimeter and object recognition. (Fig. No. 4)

The wreck lies at a depth of 31 meters, at the propeller and the highest point at 17 meters from the surface. It rests on a sandy bottom with minimal traces of dead shell and a thin layer of mud, depending on the year. The ship is facing stern-bow on the North-South direction, is inclined nearly 20 ° on starboard, is dressed in a shell garment with sea vegetation and is not covered by fishing nets or other similar materials that would block the visibility or access inside.

During the accomplished observations, the Aquarius team divers found visible traces of the sinking in the middle of the shipwreck, on the starboard side. In the area below the waterline of the ship there is a hole of irregular shape, with varying sizes between 0.8 to 2.5 meters. The hull perforation could have been caused by an explosion, given the irregular perimeter of the opening. The rest of the hull is intact, without any holes, deformed or missing parts. Aft starboard, near the wreck, there is a marine mine cart, unloaded, which we can assume it belonged to the mine that hit the vessel.

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<sup>7</sup> Sinking place and mine cart found near wreck matches the mine net coordonates, placed by the mine-laying ship NMS Amiral Murgescu on date "30.01.1943: launches the mine net S-57, outside the barrage of Capul Midia".

Most divers that visited the sunken cargo stated that it is a "superb" wreck from the heyday of the building vessels yards, which impresses with pieces of bronze mounted on board (navigation equipment, gas lighting lamps, portholes, naval furniture elements, etc.).

From both the hull and the ship castle<sup>8</sup> are missing numerous portholes, latches, railings and other bronze pieces of naval use. The aspect of the spaces left empty indicates that the pieces were removed by dismantling long time ago (proven by the presence of the bioderm and oxide layer in a large quantity).

In 2008 diver Cristian Munteanu enters for the "first time" the superstructure, the ship command, where he identifies navigation devices and the helm of the ship, the latter being detached from the socket. Few months later, to protect the cultural property, Harry Bakker and Pică Iulian (Aquarius Diving Center), bring ashore the helm of the ARKADIA wreck, which they give afterwards to the Romanian Navy Museum in Constanta. Today, after being restored, treated and preserved properly, we can find it in the museum's permanent exhibition. (Fig. No. 5).

In the last immersions carried out on board the cargo, divers found on aft the spare propeller, and under the stern racking the spare rudder fixed in its position. During the descent to the wreck more videos<sup>9</sup> were made and impressive images were brought. (Fig. No. 6). The mystery related to the name of the ship is not the only one surrounding the shipwreck, a legend fuelled by Ramiro Angelescu<sup>10</sup>, currently leader of a diving school, has floated around the sunken ship. Legend has it that in the captain's cabin would have been a case of French cognac and that the divers descending to the wreck returned "dizzy". Most likely this is an anecdote sold by military divers to Ramiro Angelescu, who in the 80's, was working on the coast on making some underwater filming. A funny story told at a party after work or a mere fiction of it.

After several dives at the sinking site, Harry Bakker sketched a scale artistic image of Arkadia wreckage, surprising the position of the ship on the seabed, the structure elements and the morphology of the seabed as it is now. (Fig. No. 7)

Diving to the shipwreck requires a good physical condition and training. Only experienced divers and instructed accordingly are recommended to enter the wreck. The immersion can be achieved with air or, for a longer duration immersion, with a binary respiratory mixture - NITROX. The visibility is moderate to good

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<sup>8</sup> Superstructure, construction above the deck where usually is the ship command.

<sup>9</sup> *Wreck "Arkadia" – Black Sea*, <https://www.youtube.com/watch?v=x2kI5a5FMIE>, loaded on the public site <https://www.youtube.com> by "Omnismares T101" diving club in Constanta.

<sup>10</sup> Hired in that period at Safia Film Studios.



directly related to the Danube flow, sea currents from the North and thermocline<sup>11</sup>. The water temperature is variable depending on the season, from 20 ° C during the months from August to September, up to 5 ° C on the bottom in February to April. Enforce the compliance of rules of diving - team of minimum two divers with assistance from the surface.

## II. MOSKVA

In the Second World War one of the monsters made of iron and steel with fire holes which ruled the Black Sea<sup>12</sup> was hit and sunken to the bottom in the Romanian territorial waters, following an open armed conflict in the summer of 1941. Over time the "monster" remains periodically have sparked the interest of historians and challenged several generations of experienced and amateurs divers to find them and show them to the world after decades. (fig. no. 9)

After a long period of study, consultation and analysis of several documents, civilian and military archives, both in Romanian and Russian language, alongside with a bi-national Romanian-Russian collaboration at diving enthusiasts' level, searching for the most titled Russian military ships of that era - the destroyer MOSKVA started. Thus, around the years 2009-2010, around the destroyer wreck gravitated two amateur divers clubs<sup>13</sup> anxious to find the pieces of history lost in the waters. The two teams were running parallel study and searching activities.

In 2010 a group of eager amateur divers from one of the two clubs, addicted to underwater adventures, passionate for novelty, adrenaline and sensational discoveries, team up with a Russian partner, together with whom started a documentation over the archives, which allowed them to narrow the area of investigation. The adventurous group succeeds to mark the destroyer identification in their list of records, but they don't go public with the news, wanting to make a documentary video to announce its discovery.

That is the moment that marks the beginning of the destroyer's post-mortem logbook and the debut of a new episode meant to elucidate the exact cause of the sinking of the leader of the Russian fleet.

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<sup>11</sup> Thermocline rarely *metalimnion* is a layer of water that forms between the warm and cold water when the sea temperature suddenly decreases or increases. During sinking you feel as between two bodies of water. The water layer thus formed gives an opaque glass aspect, caused by the refraction of altered column of cold or warm water. The phenomenon happens in the air as well between the layers of the atmosphere, which can be observed when hot air rises; example - in desert areas and on roads where causes miraj efect.

<sup>12</sup> The West Zone of the Black Sea which was the military conflict area.

<sup>13</sup> Because currently there is still a dispute between the two clubs, I avoid mentioning the names of these two teams.

In late spring of 2011, the representatives of the second club, united by the same hobby and goal, form a Romanian-Russian-Ukrainian heterogeneous team, which also starts a developed activity of prospecting a perimeter where, according to archival research results, that metal titanium wreckage would be found. After successive weeks of scans of the seabed by indirect geophysical methods (multibeam - sound mapping, gravimetric and magneto metric measurements) and video analysis using ROV<sup>14</sup>, appear the first signs of the existence of a possible sunken ship with the physical characteristics of the famous ship, clues confirmed by the distance from the shore<sup>15</sup>.

In May 2011, after the investigation which were accomplished, the Romanian-Russian-Ukrainian mixed team identify the Soviet military wreck and also now exploration dives take place.

The discovery of the MOSKVA destroyer caused a heated dispute between the two teams in the online environment on the main specialized forum<sup>16</sup>, a debate which placed the Romanian side in obscurity, this aspect being speculated by the foreign collaborators and proven by the articles in the international media, as well as by the allegations of a team member – Black Sea Wreck Divers Constanța (neutral group in this dispute): "...at international level the credits for finding the wreck are awarded to the Russian and Ukrainian divers, who knew how to properly manage the image capital created on the subject. "

In the summer of 2011 military divers from the 39 Divers Center and the Group of Ships of Special Operations Forces - Romanian Navy Forces, through its subordinated structures – Deep Depth Divers and EOD Divers – have performed several dives to determine the level of danger of weapons and ammunition on board, on deck and near the wreck (on the seabed).

MOSKVA destroyer is one of the ships of Leningrad class, built in the early 30s for the Soviet navy. It is a model inspired by contre-torpilleurs type from French Navy fleet. The ship is launched on water in 1934 and became operational in 1938. In this class are also included the HARKOV and LENINGRAD ships, and later MINSK, TIBILISI and BAKU, those being the biggest ships built after the Bolshevik Revolution (1917). During the era and in the specialised literature the MOSKVA destroyer was named "The Black Sea Titan".

On June 26th, 1941 a Soviet attack from the sea was triggered on Constanta. The Russian fleet with Harkov and MOSKVA destroyers among the ships during

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<sup>14</sup> ROV, abbreviation for Remotely Operated Vehicle. Device underwater operated from the surface, which can dive to different depths (depending on the technical characteristics), equipped with live cameras and prehensile arms.

<sup>15</sup> Area located in the fire range of the Romanian-German coastal battery "Tripiz" and of mine barges located at 10-12 miles.

<sup>16</sup> Forum designated to diving enthusiasts, <http://www.scubaboard.ro/forum/forum>.

that morning of June 26th, at 03-04, with the mine shield type devices installed, got near the mine barges (placed 10-12 sea miles from shore), which defended the port area. MOSKVA advanced through the mine net where it launched attacks on the port area and the Palas train station. At around 4:26 aboard the destroyer occurred an explosion that split the ship in two and in two-three minutes it sank. The coastal brigade and Romanian military vessels opened fire on the two vessels. The cause of the ship sinking is not fully known, today there are four assumptions (Damaschin 2014, p. 156):

- the ship was hit by the Romanian military fleet
- the ship was hit by the coastal brigade
- the ship hit a mine in the net
- a possibly confusion of the 206 SHCH soviet submarine, which fired directly on his ship.

The destroyer is impressive in size and firepower for its period:

Length: 127.5 meters

Width: 11.7 meters

Engine power: 49,000 KW = 66,000 horsepower

Speed: 40 knots = 74km / h

Standard displacement: 2.180 tons

Loaded displacement: 2,582 tons

On board weapons five cannons of 130 mm and 76.2 mm, four cannons of 25,33mm, 68-115 mines and 52 torpedos.

The wreck is located at the edge of the Romanian territorial waters<sup>17</sup>, abreast of Agigea, approx. 12 sea miles from shore (over 22 km), the coordinates of 44°4.020' North latitude and 28°57.172' East Longitude, is oriented N-S stern-bow, bearing 153 °. On the same alignment, linear with the longitudinal shaft of the vessel, aft, approx. 300 meters on the coordinates 44°4.172' North latitude and 28°57.021' East longitude was found one of the ship's baskets, more precisely the one that was located toward the bow of the destroyer.

After the way the wreck fragments are placed in the field, the basket and other smaller pieces of the superstructure, we can understand that here "most likely is where the explosion occurred, since this point, aft stern and punctual bow form a line, and the distance is 300 meters, the relevement remaining constant."<sup>18</sup>

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<sup>17</sup> It seems that the wreck is placed right on the border of territorial waters and contiguous zone (see art. 8, aline. 4, Law no. 99/2007, *on accepting the Convention on underwater cultural heritage*).

<sup>18</sup> Lt. Commandor Cristian Munteanu of the Romanian Navy Force.

Dives have shown that the destroyer lies on the sandy bottom at 45 meters deep, at propeller, and the nearest point of the water surface is approx. 30 meters. The wreck has the bow toward the second basket torn and twisted - overturned about 180 ° with the keel facing the water surface, making impossible to visual inspect the deck thoroughly. The aft is placed on the keel / hull tilted about 25 ° -30 ° to port. On ship's deck, the main fighting equipment were identified, all in place and untouched by the blast effect: guns, missiles and ammunition. On the sea bottom, elements of the superstructure and naval furniture are found scattered near the vessel, as many armament parts.

The destroyer wreck is covered with a layer of algae composed mostly of scallop and marine vegetable mass and is not covered with nets or other similar materials, possibly because the ship is situated in the fairway navigation of Constanta port, prohibited/restricted fishing area.

The immersions made so far to the sunken destroyer have not yet established with certainty what caused the disaster. However, the discovery of the basket detached relatively at a small distance from the body of the wreck advances the hypothesis of a mine or a torpedo hitting the vessel at the surface, in which case the explosion might have developed in the upper part of the vessel (the part above the water), absorbing the basket once with the blast, while causing a perforation of the ship's structure below the waterline, enough to induce sinking. In this case, after impact, the soviet vessel went onward inertia in the same direction until the ship sank. It is a primary interpretation of submarine data and observations. Future investigations will certainly bring out all the information needed to establish the historical truth. Assumptions on the destroyer sinking were described in detail by Ioan Damaschin in his work, but none of the options has yet received a solid confirmation from the deep. (Fig. No. 12).

The giant Russian war machine was also sought by Constantin Scarlat. There are sources that claim that the shipwreck was also found by the prestigious diver, but it was never confirmed by the author personally, in writing or verbally. "The discovery of the destroyer wreck, empirically based, has been a concern for one of the pioneers of Romanian Diving, Commander Constantin Scarlat, between the years 1970 - 1980".

Recently more underwater recordings of the wreckage have been taken and suggestive video montages have been made, the most representative being the movie *Moskva Oct 14, 2012 Aft canons, rudder, props & torpedos*<sup>19</sup>, of the T101 Constanta Club, loaded on the public website [www.youtube.com](http://www.youtube.com)

The position of the wreck, south of Constanta, where the murky waters of the Danube do not significantly affect visibility during immersions, enable sinking

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<sup>19</sup> <https://www.youtube.com/watch?v=W7wXrM71LxM>.

all year round except between July and September, when the thermocline drop to 35 meters, blocking natural light. Also, the water temperature of 5 ° -13 ° C, depending on the season, does not prevent diving, but it is a factor to be taken into account in evaluating the working conditions. Using air during diving guarantees the work safety in immersion, but with a little time for action (approximately 15 minutes), for exploration is recommended a binary respiratory mixture, preferably NITROX and a short decompression with mixtures heavily/strong over oxygenated - TRIMIX, REBREATHING.

### III. UNKNOWN SHIPWRECK

In June 2011, during a training exercise conducted East of seaport Midia Năvodari, a team of military divers (Romanian Navy Forces) led by Capt. Commandor Cristian Gheorghiu and Lt. Commandor Cristian Munteanu group of divers and p.c.c.<sup>20</sup>. Daniel Răsoiu identify a wreck of a ship constructed entirely of metal (iron). The ship is sunk "in beam" of Midia-Năvodari petrochemical platform approx. 2 miles of shore, coordinates 44°20.970' North latitude and 28°44.740' East longitude. (fig. nr. 13)

As it was only one descent to the wreck, it was established that the ship lies on a sandy and dead conch bottom covered with a thin layer of mud, at a depth of 17 meters, atilt on a board about 15° - 20° and oriented North-South. The highest point of the metal relic is the mast, which starts at 8 meters below the water surface.

The observations made underwater by the military divers showed that the vessel is not integer, they did not find on any side of the ship the propelling section (the propeller open end) or the outboard for steering systems (the place of the rudder blade) or the anchoring system (winches, anchors, chains, chain room), so that they could not determine the bow or stern of the wreck, "both endings are abrupt, not rounded" according to the assertions of Lt Cdor Cristian Munteanu. The dimensions provided by the protagonists are rough and for guidance purpose: length 25 meters, width 6 meters, height on the boards 1-2 meters and the mast starting from the standard deck is about 9 meters.

What was specifically noted during visual inspection by the divers comes from their statements: "We found a small square<sup>21</sup> with entrance from deck level, with dimensions: length about 4 meters and 3 meters wide, with small portholes aprox.10 inch and traces of floor fixing of some sofas", also the authors appreciate that the ship is "most likely a fishing vessel of the fishing fleet in the Black Sea or a river boat."

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<sup>20</sup> Contractual Civil Personnel.

<sup>21</sup> Spacious room existing on the ship board, where crew members usually meet.

Unfortunately there is no argument so far to support the above, there are no clues regarding the ship's type, size, origin, flag or name under which it sailed. To elucidate the enunciations further diving and investigation are needed. Given its size, where the breadth reported to length is typical to warships (very narrow), we cannot exclude the possibility that the wreck is an old warship.

The wreck is covered with a minimum shell substrate on top of mud and the mast presents massive deposits of large conches. On the outer surface are not present fishing nets or other similar materials.

Diving to the wreck must consider the visibility which is strongly affected by northern currents and the Danube flows - carrying alluvium (spring, early summer); the depth makes it ideal for air immersion and should not be ignored assistance from the surface.

#### **IV. WOODEN MILITARY SHIPWRECK AT SULINA<sup>22</sup>**

I think that the most exciting and fascinating shipwrecks are the wooden fighting vessels. In Romania the most spectacular ship of this class was discovered recently in the port basin of Sulina.

In the spring of 2015 the passion for shipwrecks brings the Constanta Marine Explorer Club team (Roibu Pascale and Iulian Rusu) in the Danube Delta. The study of the expertise works and the close experience in military applications deployed in the Danube waters brought the two divers to Sulina. Here, after completing the knowledge on the spot, with the support of the locals and the fishermen, they focused their search area and marked off an aquatic area near Sulina. The perimeter subject of the examination was the water basin of the port established out of Sulina, on the same side of town, with access from Sulina Arm. (Fig. No. 14).

Ultrasound scan revealed three forms similar with some vessels bodies. From the first verification submerges the divers established, without doubt, the presence of three wooden shipwrecks (the first two identified are merchant ship, the third being a battleship). Because the observations were conducted during a single day (20 May 2015), the inspections were sketchy and the authors could not get more details on the state of preservation, building type, size or chronological fitting of the wrecks.

The third ship found under water is placed in the middle of the southern side of the basin, at about 200 meters from shore, the GPS coordinates 45°9'20.91" North latitude and 29°40'50.11" East longitude.

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<sup>22</sup> I will resume a fragment from the article *Wood wrecks discovered in the period 1989 - 2015*, which I presented in the book - Mustăţea Sergiu, *Current trends in the protection of the archaeological patrimony in Romania and Moldova Republic*, Arc Publishing House, Chisinau - Iaşi, 2016, to which I added additional data.

Underwater observations of the two divers were focused more on this shipwreck, because of the inventory that has been noted since the first immersion (parts of weapons and ammunition).

The determinations taken show that the vessel is a military ship made entirely of wood, situated on an area of sand and mud, devoid of aquatic vegetation at a depth of 7-8 meters, with the longitudinal axis oriented north-south. The wreck has a length of about 45 meters, is buried in the lake bottom, the keel and the merging parts with the shell are hidden under sandy mud, the hull has parts detached and is significantly damaged, bow or stern could not be identified. The damage may have occurred following the actions of desilting of the lake by mechanical dredging. Inside the hull of the wreck, in the south-central side, has been identified a part of a dredging cup stuck in the shell, between two floor frames. The close examination of the upper area showed that the shipwreck has the main deck uncovered, with many of the components of the superstructure missing and elements of the rigging unfound. In the central area of the ship, where seems to be the boat calla, it was located an arsenal consisting of more than 100 cannonballs (Pascale 2016, p. 31) and three canon carriage wheels. (Fig. No. 15, 16). Inside the ship were found several items naval-related: wooden and metal pulleys, component elements for shell reinforcement, kevel fragments, etc. Surely a large part of the wreck's inventory is sunk in the mud covering the ship. On the outside of the wreck are present in several places fishing nets that favoured vegetable deposits and making it impossible to visit the vestiges. At about 4-5 meters from the wreck in the North-West area are visible a few cannonballs and a cannon carriage wheel, all half-sunken in the mud, most likely fallen from the board during the sinking.

To elucidate the cause of the sinking<sup>23</sup>, the vessel type, the era it belonged to, were brought to the surface two pieces (a cannonball and a cannon carriage wheel) and suggestive images. The artefacts recovered were delivered to the Sulina History Museum and the Tulcea County Department for Culture was notified about the discovered shipwrecks.

Thus, after removal of silt and vegetable deposits, without interfering on the goods in any way, visual checks were carried out on the physical characteristics of objects (fig. No. 17)

- The cannonball is made of iron, has a black / red color, with pronounced traces of corrosion and oxidation, has a diameter of 30-35 cm and weighs about 70 kg, the interior has traces of black powder;
- The cannon carriage wheel is an auger model, made of wood with iron block and the rolling way is protected by a strip of iron, has a diameter of about 1-

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<sup>23</sup> Underwater the objects seen through the viewfinder are larger, it creates an optical phenomenon of magnifying glass, also, with the descent into deep, items lose natural color.



1.1 meters and weighting about 60 kg, a thick layer of oxide on the ferrous components can be observed on the exterior.

The ship is partially buried in the sand covered with a consistent layer of mud. On the vestiges is visible a bioderm specific to the stagnant waters with silt and sand deposits.

The shipwreck area, the position of the wreck - relatively close to shore, in shallow waters at 6-8 meters - the construction type, which seems to be specific to the 18th – 19th centuries, related to the shore conformation in recent centuries, make plausible the theory of ship's stranding on the sand banks located south of Sulina port due to navigation errors or storms (the best known the one in 1855 - November 24 / December 6), or a military confrontation.

Theoretically, in this case, given the depth at which the wreck lies, the dive is accessible to all regardless of training level, but because of sandy bottom with silt and stagnant waters specific vegetation, plunging is recommended to experienced divers who are familiar with such an aquatic environment.<sup>24</sup>

Of all underwater archaeological discoveries made in the last two decades, the military ship stranded at Sulina, represents the only discovery that is not in an archaeological site or in an archaeological protection area.

The existence of the military wrecks in Romanian waters of the Black Sea is a certainty expressed in historical documents, in statements of witnesses of the events and in the findings presented.

A lode of underwater archaeological sites (wrecks<sup>25</sup>) is in the contiguous shore area as a result of practising cabotage in navigation until the early nineteenth century. Many civilian / commercial and military ships have failed or have wrecked generally in the avanport areas or on the navigable routes due to armed confrontations, bad weather, navigational errors, mishandling of ships, accidents on board etc.

Protecting underwater archaeological sites and their cultural belongings began with the establishment of some protection measures and ranking in the Historical Monuments List the areas with an obvious archaeological heritage. An

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<sup>24</sup> An inexperienced dive (expressed by sudden, uncontrolled moves, without stable buoyancy or an improper position of the body in relation to artifacts) would cause a disturbance of sand with silt or deposits which will result in a rapid decrease in visibility and consequently a temporary cessation of work or even damage or destruction of the sensitive, fragile, friable vestiges.

<sup>25</sup> In terms of topology, underwater sites are classified into four categories: wrecks, submerged terrestrial sites, underwater sanctuaries and underwater deposits without ritual character.



attitude that resulted from a synergistic trend of European policies to protect underwater cultural patrimony and of underwater activities of the reputed diver - Constantin Scarlat.

*Ad litteram* implementation of the legal frame calls for an active involvement of the authorities with responsibilities in the field, special technical equipment, specialized personnel and a financial effort proportional with the needs imposed by the on-site reality. In support of resolving the situation, the leaders in the field must take action and encourage underwater archaeology cleavage of the terrestrial archaeology by forming an archaeological trained personnel able to carry out archaeological evaluation, supervision and research activities in the aquatic environment. This is the condition that assures that underwater conducted activities on the vestiges will treat the sites covered by water in a professional, qualified and comprehensively manner.

It is true that underwater archaeology is a new discipline, at the beginning both on global and national levels. But, if countries with tradition in archaeology and with submerged archaeological potential understood to open another path in archaeology and invest humanly and materially / financially in the new way of scientific research, to create institutions of training and study in the underwater segment, why not Romania, where exists a rich archaeological resource and where in these days this discipline is anomic, amorphous, still empirical and only in the sight of pseudoarchaeologists.

Underwater archaeology in our country, now, more than ever, needs air both underwater and on the surface.

#### PHOTO SOURCES

Fig. 1 Personal Archive

Fig. 2 Aquarius Diving Centre Archive Constanța

Fig. 3 <https://earth.google.com/>

Fig. 4 Aquarius Diving Centre Archive Constanța

Fig. 5 Personal Archive

Fig. 6 Aquarius Diving Centre Archive Constanța

Fig. 7 <http://www.romania-actualitati.ro/vas-sovietic-scufundat-de-romani-descoperit-dupa-70-de-ani-28993>

Fig. 8 Aquarius Diving Centre Archive Constanța

Fig. 9 Aquarius Diving Centre Archive Constanța

Fig. 10 Aquarius Diving Centre Archive Constanța

Fig. 11 <https://earth.google.com/>

Fig. 12 <https://earth.google.com/>

Fig. 13 Marine Explorer Club Archive Constanța

Fig. 14 Marine Explorer Club Archive Constanța

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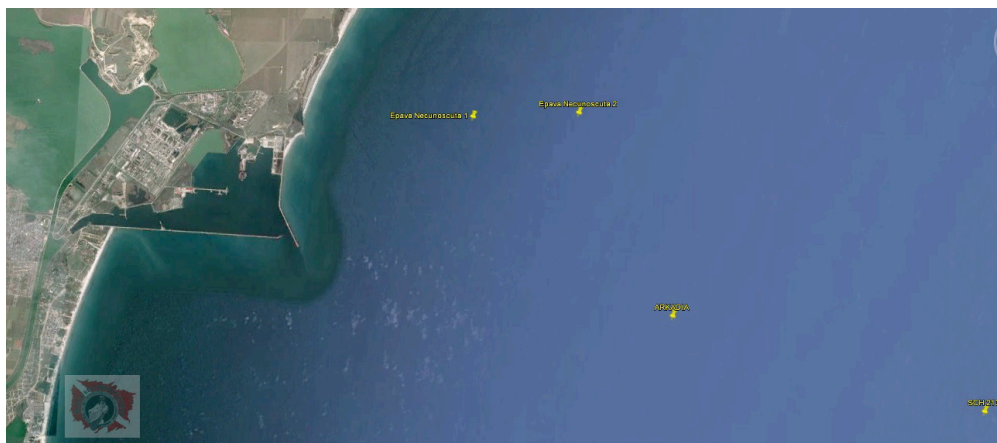
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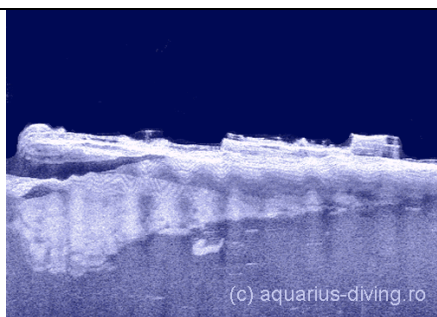
**Fig. 1**



**Fig. 2**



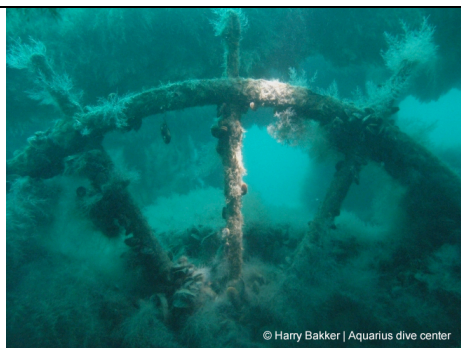
**Fig. 3**



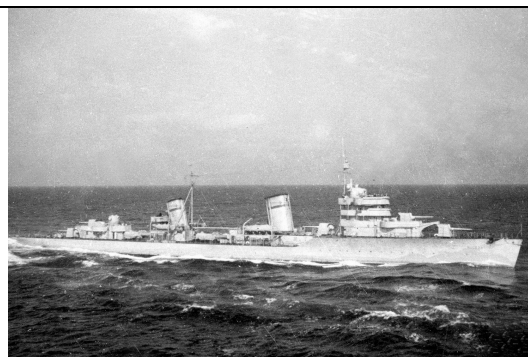
**Fig. 4**



**Fig. 5**



**Fig. 6**



**Fig. 7**



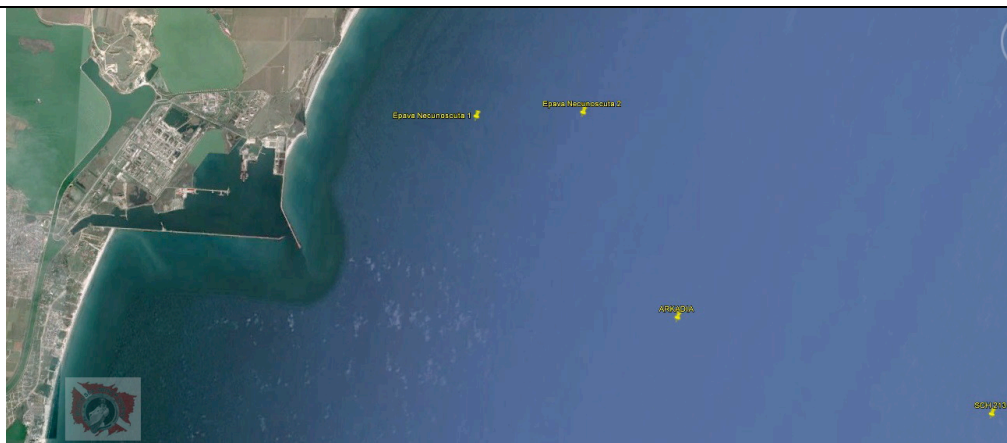
**Fig. 8**



**Fig. 9**

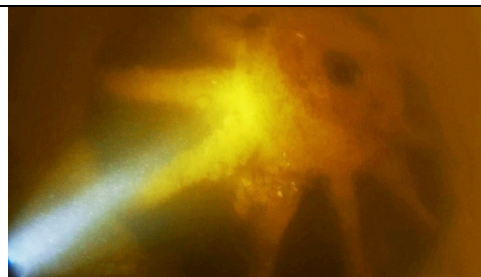
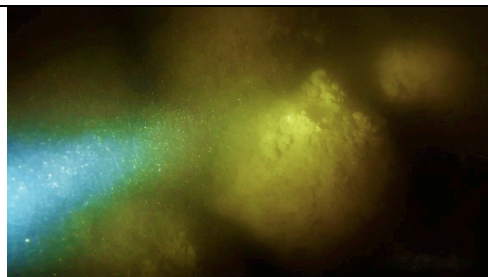


**Fig. 10**



**Fig. 11**







**Fig. 15**

## AN ISSUE OF THE MIDDLE AGES: THE MOAT AND BULWARK OF THE CITY OF TÂRGOVIȘTE BETWEEN HISTORY AND PATRIMONY

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**Abstract:** *The fortifications dating from the first centuries of existence of this princely court are regarded with a natural reservation entailed by the frailty of documentary mentions and of incomplete archaeological results. Notwithstanding, Târgoviște is a unique model in the urban history of the Romanian Outer-Carpathian area, as it is the only city surrounded by a fortification adapted for firearms. We owe this complex fortification system to Prince Matei Basarab who had Târgoviște surrounded by a moat on the outside, an earthen bulwark with palisades on the inside and four masonry gates. The 12 bastions, used for the deployment of the artillery, were integrated into the bulwark. We have been particularly preoccupied with the history of this monument from its very beginning until today, especially since the administrative measures from the modern and contemporary age, fragmentarily recorded in archive documents, have caused irreparable damage to it.*

**Key-words:** *fortification, foreign travellers, archive document, urban planning, historical monument.*

The importance of Târgoviște in the Romanian Middle Ages remains undisputed. The capital of Wallachia in one of the strained periods, that of fighting against the Ottoman Empire, reveals itself to us as one of the significant fortified urban centres of the Romanian space.

The issue of fortifications of Târgoviște continues to be discussed in historiography, requiring a multi-level research, taking into account all existing sources, especially since the process of degradation and even disappearance of these structures, on certain sections, is related to the administrative measures taken in modern and contemporary times. Thus, we have been searching for evidence capable of providing an overview of what has been done and what has been destroyed in

order to be able compose the real image of one of the most representative monuments of military architecture from outside of the Carpathian arch.

The foreign travellers' notes bring valuable information in the absence of documents that might be able to confirm or deny the existence of an outer fortification of the city throughout the 15<sup>th</sup>, 16<sup>th</sup> and 17<sup>th</sup> centuries.

We shall start our exposition with the account of Felix Pentacić who, in early 16<sup>th</sup> century, would make an eloquent description of the fortifications surrounding Târgoviște: *"...făcută inaccesibilă nu prin ziduri sau încinsă de întărituri, ci prin șanțuri, val și metereze întărite pe dinafară doar cu pari ascuțiți și este așezată între mlaștini care o închid, cu păduri mocirloase și bălți, așa că aproape toată regiunea de jur împrejur este de netrecut."* ("... made inaccessible not by walls, nor strengthened by dikes, but by moats, bulwark and ramparts reinforced on the outside only by sharp poles and lying among marshes that enclose it, with muddy forests and swamps, so that almost the entire area is impregnable...") (Călători străini despre țările române 1968, 444). The information, of utmost importance, comes from a broad-minded diplomat, noted for his useful services at the court of King Louis XII of France or that of Sultan Selim I. It is the pillar of the theory according to which the capital of Wallachia, at the dawn of the 16<sup>th</sup> century, was provided with a fortification made up of a defence moat and palisade.

The next sources regarding the fortifications of Târgoviște raise certain issues of interpretations. Francesco della Valle, who was in the service of the adventurer Aloisio Gritti, travelled through Wallachia twice, in 1532 and 1534, on his way to Transylvania. The description he left is at least surprising, for he claimed that the city was surrounded by stone walls and the courtyard only by thick wooden poles (Călători străini despre țările române 1968, 322). Considering Pentancić's mentions, which are closer in time to the Italian's, we may think of a possible error, an inversion arising from negligence between the description of the court fortifications and those of the city.

Anton Verancsics, as secretary of King John Zápolya, arrived in Wallachia in mid-16<sup>th</sup> century, mentioning Târgoviște as the country's most important city without fortifications. By drawing a comparison with Moldavia, where, according to Verancsics, fortifications were present only at Suceava, Hotin and Neamț (Călători străini despre țările române 1968, 403-404), we may have an idea about his lack of information on this matter. The entire string of citadels that formed the defence system during the reign of Stephen the Great, which was in the care of his son Petru Rareș, was not therefore sufficiently known to Verancsics.

From the second part of the 16<sup>th</sup> century, the information regarding the fortifications of Târgoviște is substantially changed. Pierre Lescalopier, a lawyer educated in Paris, chose to travel to the Levant and, on reaching the capital of



Wallachia, he would mention only the large fences surrounding the prince's palace (Călători străini despre țările române 1970, 428).

Franco Sivori, the secretary of Prince Petru Cercel, who can hardly be accused of lack of information, does not mention, in his memorial, the fortifications of the city or at least of the princely court. Furthermore, he provides an explanation from which we can identify the reasons of this situation: "*orașele sunt fără ziduri și nu există nici o cetate, toate fiind dărâmate de turci.*" ("the cities have no walls and there is no citadel, for all have been torn down by the Turks.") (Călători străini despre țările române 1971, 18).

The absence of fortifications is confirmed, in the last quarter of the 16<sup>th</sup> century, first by Filipo Pigafeta, a military architect known in the epoch through his father, Antonio Pigafeta, Magellan's companion in his journeys. Pigafeta provides an eloquent description of the city: "*Acest oraș foarte mare deschis mai degrabă în chip de sat...*" ("This very large city which is open much like a village...") (Călători străini despre țările române 1971, 550). Corroborating this piece of information by another of his mentions according to which, in the area of Târgoviște, only an army would be enough to block the Turks' access to Transylvania, we can infer that he did not see a city fortification.

Balthasar Walther, who was next to Michael the Brave during his retreat to Transylvania after Călugăreni, basically confirms the previous description: "*Târgoviștea este un oraș mare, dar lipsit de ziduri*" ("Târgoviște is a big city, but without walls") (Papiu Ilarian 1862, 31).

A fortification built in the whirl of events is also mentioned in the writing of the Franciscan missionary Giuseppe Piscullo, who states that, after occupying Târgoviște, Sinan Pasha, the grand vizier of the Empire, raised a palisade, alongside the old one at the prince's palace (Călători străini despre țările române 1971, 630).

Consequently, we may conclude from these journey accounts that the fortification structures surrounding Târgoviște had existed before the middle of the 16<sup>th</sup> century, as emphasised by Pentaciș's writings included in Thomas Münster's Chronography and by those of Francesco della Vale. For this reason, a tempting hypothesis remains: their demolition at the order of the High Porte, within the context of the establishment of an Ottoman domination regime following the year 1545. Further on, the absence of fortifications in the second part of the 16<sup>th</sup> century was mentioned by almost all the major works of that time, from Franco Sivori to Balthasar Walther.

The first decades of the 17<sup>th</sup> century confirm the absence of city fortifications. The writing of the Transylvanian Toma Borsos, who was leading the Principality delegation to Wallachia, reminds us of the Italian Pigafeta's notes: "*Târgoviștea este un oraș deschis, foarte mare*" ("Târgoviște is a very large open city.") (Călători străini despre țările române 1972, 375).

The long reign of Matei Basarab coincides with the construction of the first complete fortifications of Târgoviște City. A testimony from his decade of rule comes to complement the examples related to the inexistence of a chain of city fortifications. Thus, in 1640, the bishop of Gallipoli, Peter Bogdani- Baksiç, arrived in Wallachia at the request of the local Catholic community in order to consecrate the monastery of Târgoviște. He mentioned in his report: “*la citta di Targoviscte, senza mura...*” (Călători străini despre țările române 1973, 213).

The exact date of the erection of the city’s defence system is recorded by Letopisețul Cantacuzinesc: “*Și s-au îndemnat Matei-vodă de au făcut cetatea din Tâgoviște de iznoavă, leatul 7153*” (“And Prince Matei had the city of Târgoviște built once again, in the year 7153.”).” (Cronicari munteni 1961, 155). The meaning of the term *iznoavă* (meaning ‘once again, from the start’) reinforces the theory that the fortifications were raised from scratch – another indication that they no longer existed.

Data on the fortification system of the city are also to be found in two sources dating from Matei Basarab’s last year of reign. Immediately after his wife’s death, in August 1653, upon return to Argeș, the prince was prevented from entering the city by the revolt of the *seimeni* (‘mercenaries’): “*...seimenii i-au închis porțile și i-au ieșit înaintea, la șanțul cel mare, cu toate tunurile, oprind pre domnul lor ca să nu mai între în cetate...*” (“the seimeni closed the gates and came out to meet him at the great ditch, with all the cannons, preventing their prince to enter the city”) (Cronicari munteni, 1961, p. 161). The second source is related to Paul of Aleppo who, along with the Patriarch of Antioch, Macarie, would see a city: “*...înconjurat de o palancă de lemn...*” (“...surrounded by a wooden palisade”) (Călători străini despre țările române 1976, 106).

A confusing stage occurred after Matei Basarab’s death, when the political situation required the partial demolition of the city fortifications. A moment to which we may relate this action regards the anti-Ottoman policy undertaken by Mihnea III in collaboration with the Prince of Transylvania, George II Rákóczi. When Mihnea came into power, he was ordered to burn the walls of Târgoviște (Hurmuzaki 1885, p. 51). Overwhelmed by Turkish forces, he was forced to retreat to Transylvania and the favourite of the Porte, Gheorghe Ghica, took his place. In his turn, the new prince was ordered to destroy the houses of Târgoviște so that there should be no princely seat there, under the mountain. It is hard to believe that this destruction referred to civilian buildings; it rather concerned the demolishment of the city fortifications (Gioglovan 1973, 99-100).

Constantin Brâncoveanu’s age represented a moment that may have proved beneficial to the rebirth of this defence system. However, there is no documentary evidence and only some logic of facts and certain archaeological analogies prompt us to believe that a restoration of the fortifications of Târgoviște occurred during this

period. The accounts of the English clergyman Edmund Chishull, who, in 1702, travelled through Wallachia, confirm what we have said, for he knew about an interdiction the Turks had imposed on Brâncoveanu: "...domnul a primit voie să refacă oraşul cu condiţia să nu ridice întărituri în locul acela..." ("the prince has been allowed to rebuilt the city provided he does not raise ramparts on the spot") (Călători străini despre ţările române 1983, 200).

The definitive abandonment of the city by the lordship, in the first part of the 18<sup>th</sup> century led, naturally, to the ruination of constructions here. During the last reign of Constantin Mavrocordat, the Turks destroyed everything: "...dărâmând toate întăriturile cetăţii..." ("pulling down all the city's ramparts") (Condurăţeanu 1886, p. 116). Nonetheless, only a few decades later, Franz Josef Sulzer (Sulzer 1781, p. 321), who had come to Wallachia at Prince Alexandru Ipsilanti's order, would notice them in 1781 and deem they must have been built recently, during one of the Russo-Austro-Turkish wars. The good condition in which they were prompts us to think of an intervention on them in that century, perhaps during the flourishing reign of Brâncoveanu.

Several other decades later, against the background of Tudor Vladimirescu's movement, new data on the fortification of Târgovişte emerged. They are provided by a Russian general, Ivan Petrovič Liprandi, who would write from Bucharest in the year 1830: "*Sosind la începutul lui aprilie, la Târgovişte, eterişti au încartiruit o mare parte din oamenii lor în acest oraş...De asemenea ei au început să întărească Târgoviştea şi au înălţat trei bastioane spre sud, aşezate însă fără a se observa vreo regulă de apărare. Şanţul şi valul nu aveau nicaieri adâncimea şi înălţimea cuvenită, aşa încât omul putea sări foarte uşor peste ele*" ("When the Eteria partisans arrived at Târgovişte in early April, they billeted a large part of their men in this city... Furthermore, they started to reinforce Târgovişte and built three bastions to the south, set, though, without any apparent rule of defence. The moat and the bulwark were not deep or high enough, so anyone could easily jump over.") (Documente privind istoria României 1959-1962, 422). One may assume that these data concern the old defence ditch, especially since its existence makes the idea of the Eteria people not trying to use it absurd. The situation related to bastions which seem to have been built on that occasion is less clear, for they apparently did not follow any defence rule and therefore the moat line.

From 1830 to 1845, against the background of a demographic growth, 182 houses were built outside of the moat at the border ("*din şanţu de la margine*"). The magistrate's answer of 1845, preserved until today in an archive stock, reports that those who remained outside the city borders were foreigners who had come here to avoid taxes (Arhivele St. Dâmboviţa 1844). The event points to the fact that towards mid-19<sup>th</sup> century, the city moat was an efficient demarcation line which had not been trespassed or destroyed. Cezar Bolliac noted the same thing in 1845. While visiting,

he would notice that there had been a fortification with ditches in this place, sheltering a large city, and a fortress inside the city that had defended the princely palace (Moisescu 1979, 33).

Archaeological excavations, which an exhaustive research cannot do without, failed to find the supporting levers to prove the existence of an early city fortification (16<sup>th</sup> century). Traditionally, it is considered, in both specialised and popularising writings, that in Târgoviște there was, at least in the 15<sup>th</sup> century, a fortification with a moat and a bulwark, even though the bulwark has not been identified so far (Diaconescu 2010, p. 80). It is, therefore, an assumption which has to do rather with the chain of historical events and it is but natural to think that the prince and the citizens maintained a fortification for such moments of distress, whether it was the Hungarian danger or, later, the Ottoman (Diaconescu, Olteanu, Muscă 2008, 92). For example, “*Cetatea de Lemn*” (‘the wooden citadel’) that Sultan Mehmed II passed by during his campaign in Wallachia, recorded in Tursun-Beg’s chronicle, may have been precisely the fortification of Târgoviște (Guboglu, Mehmet 1966, 67).

Archaeological arguments to prove that the new 17<sup>th</sup>-century moat was built upon an older one are not supported. A rescue excavation carried out nearly two decades ago, along the Poet Grigore Alexandrescu Street, identified the traces of a ditch dating sometime in the mid-14<sup>th</sup> century. The same team of archaeologists pleads for its having been put out of use after the construction of the Sf. Nicolae-Andronești Church, hence around 1527 (Diaconescu 2010, 79). According to a general pattern, basic fortifications, such as moat, bulwark or palisade, should be looked for inside the perimeter in which they could effectively protect the settlement (Gheorghiu 2000, 99). The obvious proximity to the Princely Court, roughly 200 metres, entails the question whether or not we are dealing with a court rather than a city fortification. Its westward orientation and the absence of a habitation level until the end of the 14<sup>th</sup> century highlights the military purpose of this moat, namely to prevent a possible Hungarian attack. Consequently, only excavations carried out on a large surface, which is desirable to happen as soon as possible, may help finally solve this issue.

The fortification built by Matei Basarab in 1645, a year recorded in the country’s chronicle, with the *ispravnic* Diicu Buicescu as the coordinator of works (Ionașcu 1934, 41), defended the city, being buttressed by the high terrace of the Ialomița river with its entire marshland. It has a moat on the outside, an earthen bulwark with palisades on the inside and four masonry gates which are part of the fortification system (Diaconescu 2010, 81). In addition to its defence role, it also functioned as customs and had a sanitary purpose. The present-day location is between Teiș Flag Station, Calea Câmpulung, Colonel Dumitru Băltărețu Street to the north and west, the former Oil Equipment Plant, Radu de la Afumați Street and the former Chindia department store to the south and the high terrace of the Ialomița

to the south-east. Archaeological researches, though incomplete, discard the assumption, which has had important supporters, that the new structure was built on an older one from the 15<sup>th</sup>-16<sup>th</sup> centuries (Drăghiceanu 1907, 10).

The semicircular bastions, located outside the fortification, had a similar structure to the bulwark they were part of. They were designed for the emplacement of the artillery. According to measurements, the distance between them was approx. 400 m, and initially there 12 of them (Arhivă Complexul național muzeal Curtea Domneasca 2008). Unfortunately, in the mid-20<sup>th</sup> century, only 7 could be identified and nowadays we may say that only four can be seen in the field, three of which almost entirely destroyed by the negligence of authorities.

The moat has been entirely archaeologically researched only in the eastern sector; therefore conclusions drawn here are applied to the whole fortification. In this area, the moat had a trapezoidal section 2.5 m deep, a 2-m foundation and the upper part no more than 6 m above the ground level. To make access difficult, the moat had a wooden bed in the lower part. Measured from the moat base to the bulwark coping, the fortification was approx. 8 m high, to which we add the wooden palisade (Diaconescu *et al.* 2008, 98).

The name and location of the Gates continue to give rise to historiographical controversies. The lack of extensive archaeological investigations has channelled the assumptions towards documentary mentions and a few references in modern-day cartography. Therefore, conclusions are incomplete, with unsubstantial interpretations, especially since, of all of the four gates, only two have been systematically investigated, while the other two have been identified during some urbanistic works.

Poarta Bucureștilor ('The Gate of Bucharest') or Poarta Argeșului ('The Gate of Argeș') was unveiled, at level foundation, in 1897, when Bulevardul Gării ('the railway station boulevard') was inaugurated. Relying on information from his own family members, Virgil Drăghiceanu would consider it to be Poarta Argeșului without providing additional data. In a relatively recent synthesis work on mediaeval Târgoviște (Erich, Oproiu 2012, p. 151), this assumption is accepted although there are no new arguments, for the entire argument is based on information provided at the end of the 19<sup>th</sup> century by the schoolmaster D.P. Condurățeanu, who only mentions, in this area of the Ciocârlan barrier, the gates of an old fortress, without naming it (Condurățeanu 1886, 29). On the other hand, the contestants of this hypothesis state that the entire error was perpetuated from Virgil Drăghiceanu's attempt, in 1897, to topographically identify them, not accurately specifying the cardinal points. Thus, he imagined a Gate of Argeș and moved the Gate of Bucharest towards the south-east, in place of the Poarta Buzăului ('The Gate of Buzău') (Mihăescu, Fruchter 1983, 37).

Sewage works conducted on the present-day Carol I Boulevard, in the vicinity of this Gate, revealed a defence moat, approximately 3 m high and 3 m wide, doubled on the inside by a bulwark of gravel and earth taken from the ditch (Gioglovan 1973 99). It is about here that the information about the Gate, which regardless of its name connected two princely capitals, ends. Archaeological excavations that we would like to be carried out in the neat future could provide minimal and necessary clarifications.

Poarta Dolgopolului și a Argeșului ('The Gate of Dolgopol and Argeș') or simply Poarta Dolgopolului brings two indications regarding historiographical positioning. According to one of the theories, there is only one Gate. In support of it comes an Austrian military map from 1789-1791 in which Drumul Argeșului ('The Road of Argeș') separates from that of Câmpulung beyond the Gate (Mihăescu, Fruchter 1983, 38). On the other hand, arguments can be found in Epistola Tipică or Tipică ('the Typical Epistle') of the Metropolitan Ștefan ot Târgoviște, dated roughly towards the middle of the 17<sup>th</sup> century, which described a procession of the rain that passed through all the gates of the city. Poarta Argeșului was here seen as separated from that of Dolgopol: "...poarta Argeșului pren a Dolgopolului..." ('...the gate of Argeș through that of Dolgopol...') (Petrescu 1888, 26-27). The Gate was identified and slightly investigated during some sewage works conducted on Calea Câmpulung in 1966. The intervention led by the archaeologist Radu Gioglovan established that it did not have the characteristics of a 15<sup>th</sup>-16<sup>th</sup>-century structure, while its technique points to its having been built during Matei Basarab's rule and restored significantly in Constantin Brâncoveanu's times. In the absence of any published material, we are bound to believe these observations, inserted by the above-mentioned archaeologist in a more extensive study on the fortifications of mediaeval Târgoviște (Gioglovan 1973, 101).

The Gate of Buzău or the Gate of Bucharest has been the most studied. Discovered in 1915, it was noted by Virgil Drăghiceanu. He would call it 'of Bucharest' and emphasise that it had the same plan as the Gate near Sf. Vineri Church (Drăghiceanu 1915, 94). The supporters of this theory placed the Gate of Buzău in the area of the current Gimnaziului Street, in a geographically acceptable point, however lacking any documentary archaeological support (Erich, Oproiu 2012, 152).

Systematic archaeological investigations were conducted in the 1988-1989 campaigns and the results were published disparately in several publications in the field. The data obtained contain elements which must be at least mentioned. Some of the most important aspects are the shape of the Gate tower, which is almost square, the finding of the abutment of the drawbridge on the south side and the height of walls, somewhere between 2 and 3 metres. According to this set of data, the



abandonment of the construction occurred late, probably after mid-19<sup>th</sup> century, which is confirmed by the filling levels (Diaconescu *et al.* 2008, 99-104).

Poarta Vânătorilor ('The Gate of Huntsmen'), the only one which has been fully researched, has no relevance to our study because it is not part of the fortification system of the city of Târgoviște due to its being located on the edge of the high terrace of the Ialomița river. It is worth mentioning that, in the present stage, the lower part of one of the walls of a tower, which has a passage arch, and very small barely defined parts of the lateral wall have been preserved. It is directly connected to the Princely Court, providing the voivode with access, across the Ialomița river, to Dealu Monastery, the princely gardens or the princely "ciutăria" (i.e. a hunting park with deer and stags).

In time, towards the end of the modern age, the moat and bulwark of the city started to raise interest, especially in terms of changing it into a sewerage system. The city administration found that the maintenance of the moat under minimal sanitation conditions was a difficult task, hindered by the abusive enclosing in people's households. The complex issues raised by the urban constructions initiated in late 19<sup>th</sup> century and early 20<sup>th</sup> century within the perimeter of the former mediaeval city were not always settled in favour of monuments and according to legal provisions. Furthermore, the building and commissioning, at the end of 1883, of the Titu-Târgoviște railway and of the station outside the city, beyond the mediaeval perimeter, the placement near the station of the industrial buildings related to oil exploitation favoured the expansion of the city in this direction. This led to the destruction, along considerable distances, of the former defence ditch of the city, erected in the 17<sup>th</sup> century, in order to build the new access roads.

To all this we may add the frequent change of systematisation plans, the absence of a long-range unitary conception, with solid concerns for salvaging and preserving a monument which could have become an emblem of the city of Târgoviște.

Today, the special importance of monuments, as evidence of national identity, for a people's history is more and more emphasised. It is acknowledged that, in certain situations, it is not enough only to protect in order to salvage, if monuments are not yet subject to the actual action of interventions, requiring not only the temporary rescue but also preservation and restoration in order to prolong their life; however, there were circumstances in which many archaeological vestiges (and not only them) had a complicated life or were in danger of falling apart when they could not be protected from the land that had been sheltering them for centuries.

It is true that, throughout the course of their long life, monuments undergo the permanent, slow but destructive action of the elements, violent phenomena that undermine their integrity or endanger their very existence. But, unfortunately, nature's actions are doubled by people's "interventions".

Starting from these considerations and in close connection with the previously provided documentary and archaeological data, we have been particularly interested, as a result of the pioneering archival study, in the authorities' attitude, not only that before the establishment of the communist regime, towards a monument "*care nu s-a păstrat la niciun alt oraș din Muntenia*" ("which has not been preserved in any other city in Muntenia") (Arhiva Institutului Național al Patrimoniului 1925-1945). Known in archive documents as "*Șanțul Cetății Târgoviște*" ("The Moat of Târgoviște Citadel"), it has also preserved this name in the urban collective memory of people here.

The message of a telegram sent by the Secretary General Minister, Prof. Aurel Popa, to the Arsenal Directorate of Târgoviște on October 2<sup>nd</sup>, 1943, represents a starting point from which we can interpret all measures taken in relation to this monument: "*În conformitate cu legea monumentelor istorice, nimeni nu are voie a se atinge de șanțurile și zidurile cetăților istorice. Vinovații vor fi pedepsiți conform legii amintite.*" ("According to the law of historical monuments, no one is allowed to temper with the ditches and walls of historical cities. The culprits will be punished according to the law mentioned.") (Arhiva Institutului Național al Patrimoniului 1925-1945).

In order to identify the causes that led to the seizure of certain areas of the former defence moat of the City and even to the disappearance of some of its parts, we shall exemplify by providing notes from archives, which show the attitude and position of certain people, institutions that, regrettably, acted even much more efficiently than nature.

The first serious violation recorded by documents leads us to 1934, when the city preceptor, Gheorghe Nițescu, presumed upon his influence and, according to a denunciation made by the mayor, annexed a part of the moat to his household. The City Hall took no action and the Society of Monuments from Bucharest was requested to intervene. Gheorghe Nițescu managed to prove the authorities, based on the sale-purchase act, that this invasion had been undertaken by the former owners; the litigation was settled, which prompts us to believe that that part of the moat remained in his property (Arhiva Institutului Național al Patrimoniului 1925-1945).

A 1943 note from the National Defence Ministry to the Committee of Historical Monuments requests that a part of the City Moat be included in the Army Arsenal, especially since: "*în prezent, acest șanț constituie un deposit de murdărie și focar de moliște...o parte din acest șanț este astupat și s-au construit străzi pe el*" ("at the moment, this moat is a garbage deposit and a pesthole ... a part of this moat is sealed and roads have been built on it") (Arhiva Institutului Național al Patrimoniului 1925-1945). The solutions provided by the army are interesting, for they bound themselves, if they got approval: "*să marcheze locul acestui șanț cu un pavaj de piatră sau beton, pentru a rămâne posterității așa cum s-a procedat în*



*străinătate, în incinta cetății din curtea muzeului Luvru, de la Paris sau Curtea Domnească de la Curtea de Argeș.*” (“to mark the spot of this moat with a stone or concrete pavement, in order to remain for posterity, as has been done abroad, within the premises of the fortress at Louvre Museum, in Paris, or at Curtea de Argeș Princely Court.” (Arhiva Institutului Național al Patrimoniului 1925-1945).

The Ministry of Culture and National Education directed that a protocol should be signed, on October 5<sup>th</sup> 1943, by the mayor of the city, the Târgoviște Arsenal director and the delegate of the Târgoviște garrison. They established the inclusion of the City Moat: “*printr-o ulucă înaltă de 2,5 m*” (“by a 2.5-metre high board”) in the Arsenal property. Without accepting this abusive violation of law, the committee required that it should be removed from the property and the monument should be protected by building, on Tudor Vladimirescu Street, a gate with a footbridge over the ditch.

In a 1944 note, the director of the Committee of Historical Monuments would address the Minister of War, after a commission had previously analysed the situation of the City Moat, identifying the fact that the Army Arsenal sought to trespass the old historical defence ditch of the city of Târgoviște. The systematisation plan, approved by the Committee as well, stipulated that the moat be preserved in its present state, between two roadways, forming a belt boulevard of the entire city. Under these circumstances, the Army Arsenal sought to buy a neighbouring property sold by a family that had abusively appropriated, ever since 1922, a part of the city moat. Consequently, the Arsenal was advised not to purchase this land to which they had no right and on which they would uselessly spend a significant amount of money (Arhiva Institutului Național al Patrimoniului 1925-1945).

The few examples provided seem to us to be relevant to illustrating the concern of the institutions in charge for Târgoviște city patrimony along with the attempts of certain private individuals or those of the Târgoviște Army Arsenal to break the law.

The instauration of the communist power was to produce extensive damage to the historical patrimony of the city of Târgoviște and the moat did not remain untouched. Rescue interventions were scarce and it was only in 1972 that declogging and paving works were conducted on certain portions of the moat; these works were extended in order to consolidate Poarta Vânătorilor as well. Later on, Poarta Buzăului/Bucureștilor came to the attention of authorities and in 1988-1989 the foundations of the Gate were moved to another location currently known as “Poarta Bucureștilor” (Arhiva Complexul Național Muzeal Curtea Domnească 2008).

Unfortunately, the inertia regarding the rescue of historical monuments is noticeable even today and the explanations are many and various. The destruction of the moat is complemented by the almost complete abandonment of three of the seven bastions. Bastion 2, located on Valul Cetății (‘City Bulwark’) at the intersection of

Constantin Brâncoveanu Street, was decommissioned in two stages: in 1983, by the placement of the Doicești-Târgoviște district heating pipeline, and in 2001, by the construction of private buildings on the lands allotted by Târgoviște City Hall (Arhiva Complexul Național Muzeal Curtea Domnească 2008).

Bastion 4, located at the intersection of Lt. Pârvan Popescu Street and Calea Câmpulung, was destroyed by the construction of a house, in 2002, built without the approval of the Ministry of Culture and Cults at that time (Arhiva Complexul Național Muzeal Curtea Domnească 2008).

Finally, Bastion 7 located in the immediate vicinity of the Gate of Buzău/Bucharest was removed in the 1990's by the construction of Dâmbovița County Tribunal, and again the destruction of the monument did not get approval from the Ministry of Culture (Arhiva Complexul Național Muzeal Curtea Domnească 2008).

In Lista Monumentelor Istorice ('the List of Historical Monuments'), an authority which provides legal protection to the patrimony, the well-known Șanțul Cetății (City Moat) is listed under the name *Fortificațiile medievale ale orașului Târgoviște* ('Mediaeval fortifications of Târgoviște City') (DB-I-s-A-16953) with the subcomponents Poarta Dealu-Vânătorilor ('Dealu-Vânătorilor Gate') (DB-I-m-A-16953.01), Poarta Câmpulungului ('Gate of Câmpulung') (DB-I-m-A-16953.02), Poarta Buzăului și Brăilei ('Gate of Buzău and Brăila') (DB-I-m-A-16953.03), 7 bastions (DB-I-m-A-16953.04), Șanțul de apărare ('Defence Moat') (DB-I-m-A-16953.05) and Valul Cetății ('City Bulwark') (DB-I-m-A-16953.06). As previously shown, the situation in the field is completely different as regards the Gates and particularly the bastions.

Structurally, the Fortifications fall, according to their nature, under the category of Archaeology Monuments (I), and, in terms of value, are included in Group A, historical monument of national value. However, if their importance is recognised at national level, we wonder why the Fortifications of Târgoviște are not signalled as such with a view to acknowledging and promoting the patrimony. The listing of buildings and designation of historical areas are important as a format step that draws attention to their importance, offering them protection. It is true that, in the course of their long life, monuments undergo the permanent, slow but destructive action of nature's forces, violent phenomena that undermine their integrity or endanger their very existence. But, unfortunately, nature's actions are doubled by human "interventions".

Regardless of their purpose, whether it is utilitarian, aesthetical or purely personal, people's actions are a detriment to the preservation of monuments in terms of their historical value. A concentrated effort is required of each of us to prevent such manifestations. We truly hope that, by learning from the past, we shall be able to correct the present.

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## LIST OF ILLUSTRATIONS

**Fig. 1.** Plan of the city of Târgoviște in the map drawn by D.P. Condurățeanu la 1886.

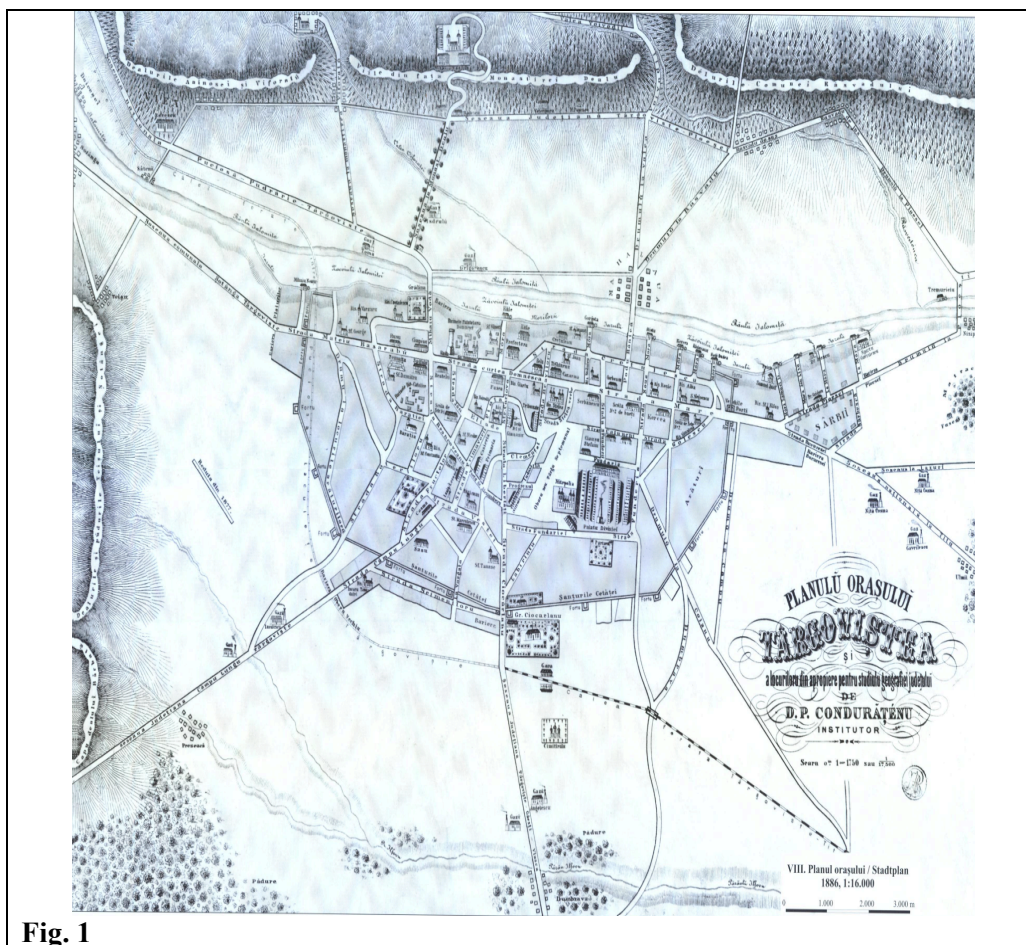
**Fig. 2.** Part of the moat of Târgoviște citadel.

**Fig. 3.** Bastion integrated into the citadel bulwark.

**Fig. 4.** The 1988-1989 archaeological campaign conducted in the Gate of Bucharest area.

**Fig. 5.** Sketch from the document regarding the Defence Moat file (INP archive).

**Fig. 6.** Plan of the city of Târgoviște in 1929.



**Fig. 1**





**Fig. 2**



Fig. 3

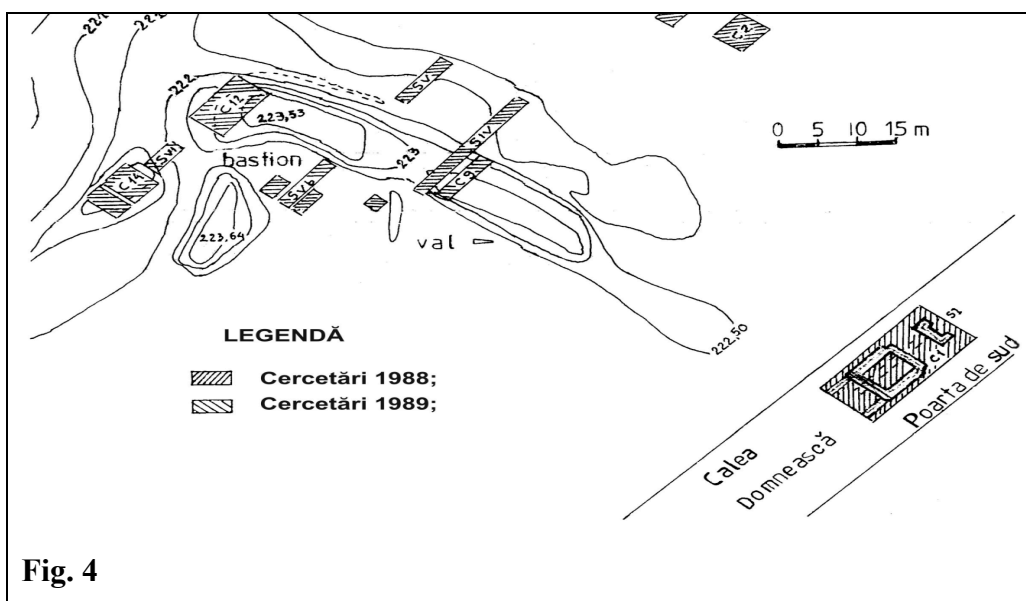


Fig. 4

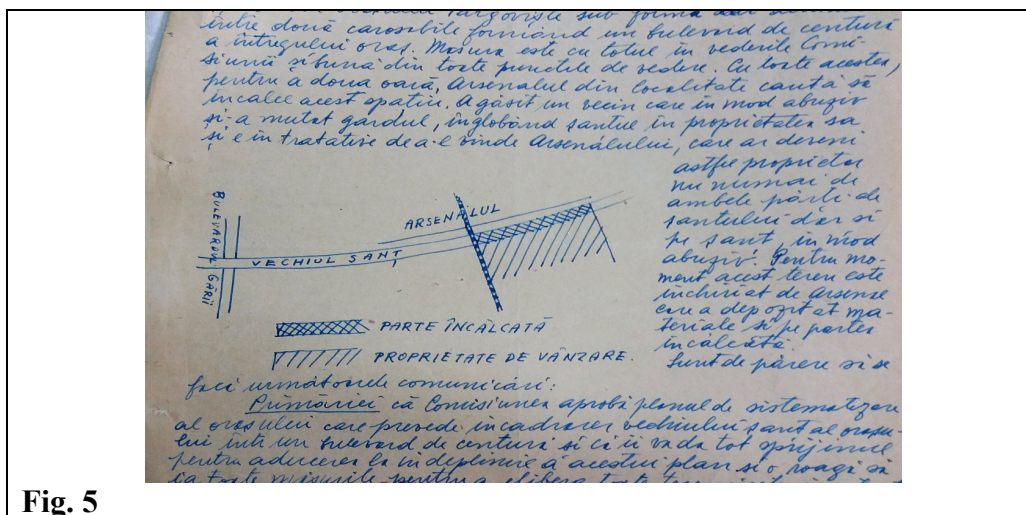


Fig. 5



Fig. 6