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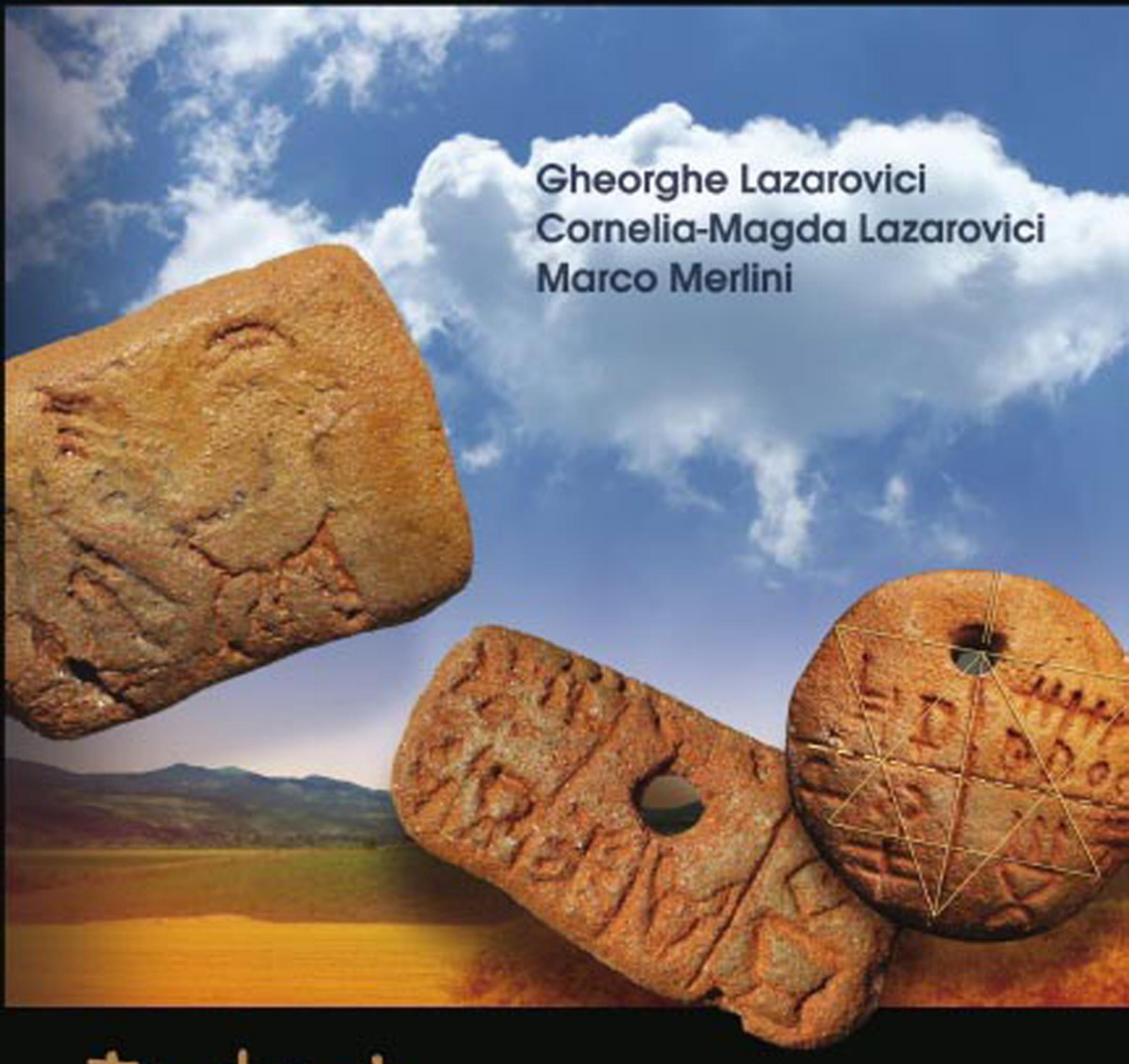

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Tărtăria and the sacred tablets

EDITURA MEGA

TĂRTĂRIA
AND THE SACRED TABLETS

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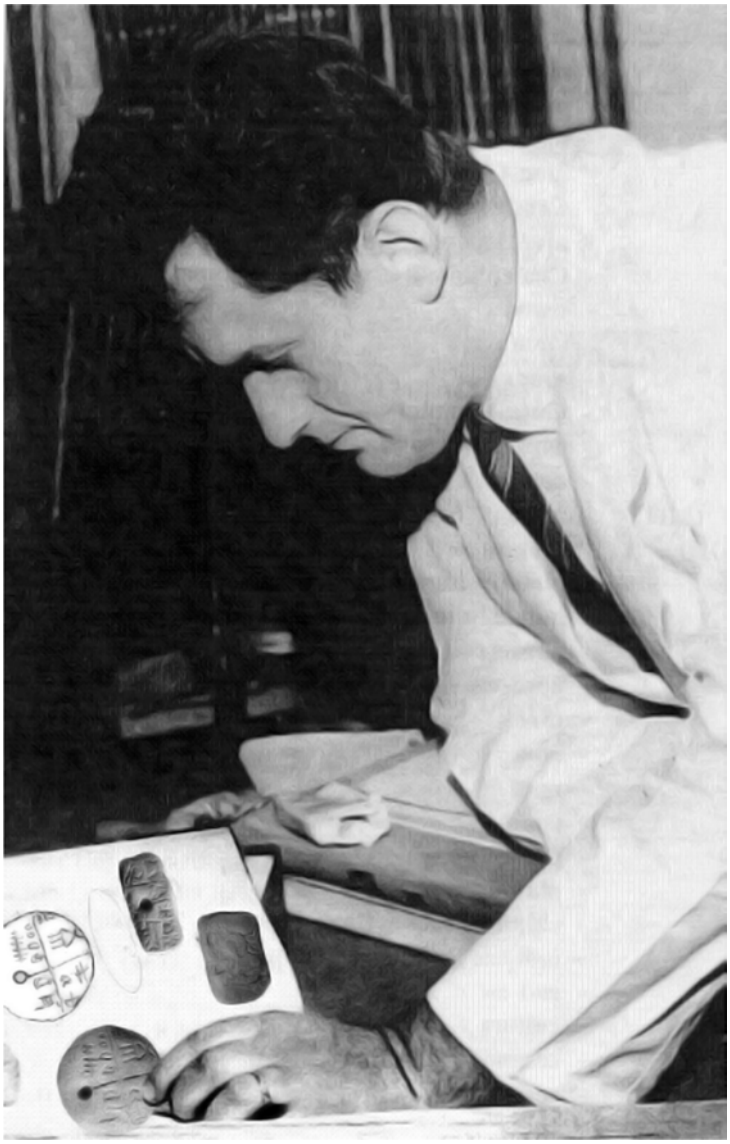

*Dedicated to **Nicolae Vlassa**, 50 years after Tărtăria excavations, and to ... Milady Tărtăria*

Contents

Introduction

It happened exactly half a century ago. On September 1961, the young but experienced archaeologist Nicolae Vlassa of the National History Museum of Transylvania in Cluj-Napoca (Romania) unearthed the three famous inscribed tablets of Tărtăria. The discovery occurred while unearthing a magic-religious complex during a survey excavation at the Neolithic site of Tărtăria – Groapa Luncii. The archaeological site is located on a small promontory high on the Mureș River (near Turdaș, Alba County, Romania). It had been located half a century before, on 15 July 1906, by Endre Orosz who was impressed by the richness of its high-pedestalled bowls and painted pottery.

Since their discovery, the Transylvanian tablets kindled a wave of controversy regarding the chronology and temporal sequence of the prehistoric civilization that developed in Southeastern Europe and its supposed synchronization with Near Eastern early civilizations due to inconsistency between the absolute and relative chronologies. The new chronology made real the possibility that Neolithic cultures in Southeastern Europe might have expressed an early form of writing predating Southwestern Asia and Northeastern Africa by 1000 – 2000 years. In short, there is a high possibility that the Neolithic civilization of the Danube Basin has to be placed in a leading position in European cultural affairs as its cradle of civilization.

For many scholars the discussion concerning the literate content of the tablets serves exclusively to set up a chronological point of reference for European prehistory. The understanding of how the sign system employed at Tărtăria is organized and works is beyond their horizon. On the other side, most attempts to interpret the meaning of the signs engraved on the tablets, or even to "read" them, are conducted by examining only the signs on the circular tablet which appear the most script-like. These are usually disassociated from the signs on the other two tablets which are further separated from the context of the ritual pit-grave and the osseous remains of the magic-religious practitioner buried with the tablets (Milady Tărtăria) together with her tools/adornments/identifiers. However, this composite burial was a sacralized unity intended to consecrate her as a respected ancestor for an early Vinča community.

While waiting for fresh evidence and scientific data from the new extended excavations at Tărtăria (in which we will participate) organized by the "Lucian Blaga" University – IPCTE at Sibiu and led by Sabin Adrian Luca, we have decided to exploit and systematize the results (largely unpublished or in brief preliminary reports exclusively for limited circulation) of the excavations previously carried on by Marton Roska in the thirties, Kurth Horedt in 1942 – 3, N. Vlassa in 1961, and Iuliu Paul in 1989.

The present work is an archaeo-semiotic investigation where archaeological context, observed in conjunction with other related information, provides insights for examining the sign system employed at Tărtăria and, in turn, sign analysis is utilized as a filter for archaeological data.

Chapter I analyzes the location, evolved economy, and environment of the Neolithic communities at Tărtăria, providing information also on the first recordings from pioneering collectors who discovered and loved the archaeological site and finds. They were 'amateurs' and 'dilettantes' in a literal sense.

Chapter II deals with the archaeological research at Tărtăria – Groapa Luncii and debugs its main results concerning stratigraphy, cultural ascribing of the archaeological material, and the dynamism of its ceramics. Our statistics on K. Horedt's finds reflect a selected lot of 1878 ceramic fragments. From N. Vlassa's excavations, we have done statistical analysis on 600 fragments selected in the field.

Chapter III reconstructs the layout, fortification systems, and architecture of the Neolithic and Copper Age settlement that spread up to about 3 ha in an oval shaped plan. The structure and architectural elements of (Vinča) pit houses and (Vinča and Petrești) surface houses are studied in detail. In Section F, a potter's house was discovered.

Chapter IV studies the evolution of Tărtăria pottery via statistical analysis, although ceramic finds were selected during old excavations preserving only entire vessels, groupings of fragments that seemed reassemblable, or sherds with decorations. Categories of ceramics and technologies used for pottery have been analyzed from the Neolithic period (Starčevo – Criș, Vinča A, Vinča B, and Vinča C – Turdaș) up to the Late Copper Age (Coțofeni). We also discuss ceramic imports from several cultures and cultural groups (Zau, Banat or Szakálhát, Linear pottery, Bükk, Precucuteni, and Petrești) and related cultural linkages, economic exchanges and social relations.

Chapter V focuses on objects for daily life. It examines flint, stone and bone tools, obsidian blades, arms, adornments, and clay objects such as weights, spindle-whorls, small thin discs, and 'clay bread'.

Chapter VI contextualizes the inscribed tablets within the rich spiritual life of the Tărtăria communities starting from the assessment of the graves (a Coțofeni or Petrești ritual sepulture of a child, and Milady Tărtăria's secondary burial) and cultic objects. As related to spiritual life, we analyze monumental idols, cultic vessels, plastic representations on pots, small altars, pot lids, spindle-whorls with signs and figures, anthropomorphic pots, scepters, and anthropomorphic figurines.

Chapter VII provides further explanations and details concerning the ritual pit-grave and the presence of the tablets that fuelled animated discussions in archaeology at an international level. It presents our determinations and interpretations after the anthropological analysis and C14 dating of the human bones (5370 – 5140 CAL BC) and the reinterpretation of the evocative funerary objects.

Chapter VIII documents pre-planned and socially significant funerary liturgies reflecting the social standing of the deceased who was deposited with sacred signs incised on tablets, Milady Tărtăria. They were finalized to consecrate an elderly, ill, revered woman as a novel ancestor. When alive, she played a pivotal magic-religious role supporting her Vinča A middle-size community striding across the gap between the world of life and the land of the ancestral dead, as well as exploiting exceptional skills in liturgies concerning the sovereign mysteries vitality connected with sexuality and fecundity. Post-mortem, she continued her duty as a venerated ancestor.

Chapter IX establishes the actual signs engraved on the tablets after direct examination through microscopic magnification. Up to now, any comparison with other magic-religious symbols or signs from early writings resulted in improper recognition of the signs under investigation.

Chapter X investigates the possible graphic convergences in shape and spatial organization of the Tărtăria signs with those of the Danube script that developed throughout the Neolithic and Copper Age time-frame in Southeastern and Central Europe, and the mono-signs from the correlated Danube civilization. The comparison is extended to some of the early systems of writing: Protocuneiform at Uruk, Akkadian cuneiform, the Indus script, Hieroglyphic Luwian, Cretan Linear A, Cretan Hieroglyphic, Linear B, and Cypriot syllabary.

Scholars who are expecting from us the sic et simpliciter assessment of the Tărtăria signs within the Danube script will be disappointed. Convergences are significant but partial. The tablets in possession of Milady Tărtăria were sacral initiatory tools utilized in liturgies. They stored and transmitted packages of information by means of an enigmatic and secret writing composed of crypto-signs understood restrictedly within a small group of initiates. The communicational channel they encode is the mythogram: chains of written signs and magic-religious symbols aimed to record and transmit spiritual knowledge inducing the believer to recall and orally express a myth, a story or an epopee, as well as to perform the related liturgies. We dare to supply some hints to penetrate the secret code of this sacred script.

Archaeozoological data from Chapter XI highlights the pivotal role of cattle breeding within an evolved agricultural economy. Hunting was largely utilized to provide a food supplement. The paleofauna analysis gives us the possibility to assess the wild environment around the settlement.

Finally, Chapter XII sets up the longevous settlement at Tărtăria within the frame of the relative and absolute chronology of the region from the Starčevo-Criș cultural assemblage up to the Vinča culture, to which the tablets belong. Subsequently, it establishes the time frame for the Late Neolithic (Turdaș level) and Copper Age (Petrești culture).

We express gratitude to the National History Museum of Transylvania in Cluj-Napoca for giving us the possibility, during the years 2002 – 2011, to directly examine the tablets, the human bones found with them, and related artifacts, and for also giving us permission to photograph them.

To conclude, we dedicate this book to Nicolae Vlassa, discoverer of the Tărtăria tablets, and to Milady Tărtăria, ancient owner of the inscribed wonders.

The Authors

CHAPTER I
LOCATION AND ENVIRONMENT. FIRST RECORDINGS[1]

GHEORGHE LAZAROVICI

LOCATION AND ENVIRONMENT

Tărtăria site is in Alba County, close to the small railway station of the village. The site is located on the upper terrace of the Mureș River, which in older times was a middle terrace, bordered by two valleys; Tărtăria valley and a smaller valley between Tărtăria and Pianul de Sus. During an older geological period, the Mureș River withdrew from the middle terrace. The stream was flowing East-West on the border of topographic curve of 221 m. Because of this course (that lasted a long period) a small valley appeared in the Southern part of the site. As a result, an oval terrace of about 223 – 225 m heights formed to the north. This oval terrace was oriented East-West and a little bit isolated from the river (Mureș was flowing then under the area of the site). Its local name, Groapa Luncii, suggest that it collected the water from the overflows.

The area of the Tărtăria site is situated between mountain ranges to the north and the valley of the Mureș River, dominated by agricultural areas. Our information regarding the economy of the Neolithic communities at Tărtăria is quite poor[2], being based mainly on paleofauna data (see Chapter XII). Cattle are predominant in the Tărtăria lot; in the Vinča A level[3] they represent 85% of all data (respectively 53%, MNI = minimum number of individuals). Effectively this means eight individuals, not a very high number, indicated by the process of bone selection. There are eight times less wild animals. Deer and doe are underrepresented, with one MNI for each species, although the wood is close by, at about 2 km away across the Mureș River. In the Vinča B levels, the proportions of animal types are more balanced[4]: Boss taurus (9 MNI), sheep-goats (2 MNI), swine (1 MNI), while wild animals are represented by 1 MNI. For the level of the Petrești culture, we have the following data: cattle (7 MNI), sheep-goats (4 MNI), swine (4 MNI), a bigger percentage for the deer class (2 MNI), and boar (2 MNI). In the higher levels of the site, where there is a mixture of archaeological material, the proportions of animal types are similar to the ones encountered at the Petrești level. Based on the above data, we conclude that this particular agricultural community had an evolved economy in which the role of cattle breeding was very important and which used hunting to supplement their food needs. During the Vinča A level, the proportion between the sexes was equal.

Mureș River Valley

In the area of Tărtăria, the valley of the River Mureș is large and incorporates several old riverbeds. During periods with a lot of rain, some of these areas become marshes. After the modern regularization of the river, these areas are used for agricultural purposes. Although agriculture was more primitive during the Neolithic, the presence of intensely used axes, starting with the Vinča A level, suggests the presence of a practical community. This conclusion is also supported by the analysis of ceramic categories found in this area.

The area offered excellent conditions for fishing, as the overflowing of the Mureș River brought fish into the swampy areas. The nearby areas of these swamps were inhabited from prehistory until the Roman period.

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1 Photos of this chapter have been made by Gh. Lazarovici.

2 We can just suppose agriculture activity, while during all excavations have not been collected any sample for analyzing adobes or earth for grains or pollen; stone artifacts suggest indirectly such activities (see Chapter V).

3 Bindea Diana 1995, Table 8, p. 55. Although Vinča A is contemporary with Starčevo-Criș, the ascribed SC here are in fact Vinča. The entire lot is Vinča A; there are no Starčevo-Criș bones.

4 Bindea Diana 1995, p. 69, fig. 1/5–16.

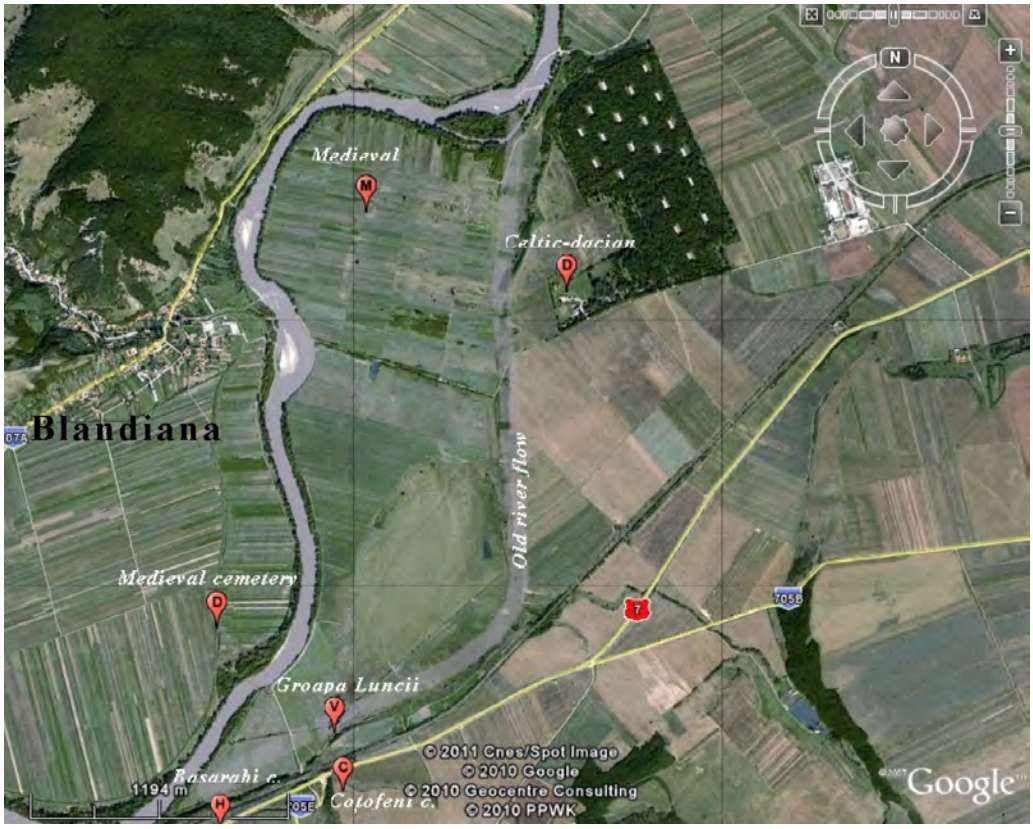

Fig. I.1. General view of Tărtăria area (Groapa Luncii) and other sites from different historical times (Courtesy of Google Earth).

The memories of a local schoolteacher, Petru Balosin (see below) offer a glimpse of the situation in the 1920s: "*At about 2 km afar from the limit of the Swamp (towards Blandiana) in the years 1920–1925 when I was a child of 10 years old and I was with the cows and horses on the pasture from the Swamp (Tărtăria), several times I found Roman tiles. We used these thick, fired tiles, entire or fragmentary, to stop the water of a spring, one of the many in the area, [where] we collected the water and swam... People from the village, from Tărtăria found some foundations, took the stones and brought them home. Here they built foundations for houses and stables. The foundations they had found were located at the limit of the Swamp, under the flank, where the soil is going down towards the Mureș meadow and has about 10 m and a rectangular or square shape. The Mureș River is to the west at about 1 km afar*". This passage shows once more the archaeological richness of the area.

Hills towards the South

These hills have been less investigated and only isolated discoveries are known. Dacian and Roman materials have been discovered at Sălișteа[5]. This is the starting point of the hilly area; the ridge of the Southern Carpathian Mountains is located to the south, about 67 km away in an aerial line.

Hills towards the North

In the northern hills, across the Mureș River, at Blandiana, Petru Balosin mentions a forest road leading to the gold source from Zlatna: "*From Zlatna, over the Mountains a road goes down to Blandiana. The traces of this road are visible in the forest even today, on the ridge of the heights*". These areas might have been of interest for the Tărtăria community which was looking for copper sources. In N. Vlassa's opinion, the Tărtăria communities looked for gold sources and imitated in clay the gold pots from Alaça Höyök[6]. At the time N. Vlassa was making these observations, based on the short chronology perspective, this correlation was possible. Although we are not sure about the interest of these communities in gold sources, copper sources did play an important part in their lives as shown by the needle made of native copper discovered at Balomir.

[5] *RepAlba* 1995, p. 63–64.
[6] Vlassa N. 1967; 1969; 1977, fig. 20–21; 1996, fig. 26–27.

Fig. I.2. Schoolteacher Petru Balosin with his parents.

FIRST RECORDINGS ABOUT TĂRTĂRIA

The older archaeological literature mentions Neolithic fragments found during the building of the railway station at Tărtăria (Alsótatárlaka). The Orosz collection contains fragments of painted pottery[7]. Petru Balosin also mentions the discovery of some painted ceramic fragments: "*I have observed that some pottery fragments are decorated with lines of different shapes, some even colored with different lines*". However, these painted fragments are absent from the Cluj-Napoca collection and from that of his family in Alba Iulia, which makes us believe that he may have given these fragments earlier to the Alba Iulia Museum. In one version of his notes (the one written with capital letters, processed) he wrote "*An old man from the village told me that he had worked for the building of the railway and remembers that some gentlemen from Budapest took off with such sherds*".

The Balosin Collection

According to the collector's last wishes, a large part of the Petru Balosin collection is housed by the National Historical Museum of Transylvania. This collection is very interesting and contains a large number of stone and clay artefacts discovered at Tărtăria prior to the more recent excavations, started in 2010. Of interest are also the collector's notes that record his passion and interest in archaeology, his respect for archaeological artifacts, the manner in which he collected the pieces influenced by his 1934 experience at Sarmizegetusa (Ulpia Traiana), and the lasting impact of Professor Constantin Daicoviciu's excavation of this important Roman site.

Biographical data

Petru Balosin was born at Tărtăria on 19 February 1915 in a farmers' family (fig. I.2). He went to school at Glod and Izvoarele, in the area of Aiud. He worked as a schoolteacher in several villages, including Tărtăria between 1947 and August 1948. In 1948, he was arrested and jailed for trying to pass the frontier with Serbia.

After this, he stopped working in education. His passion for archaeology dates back to 1934 when he participated in a student camp at Sarmizegetusa. In his memoirs he writes: "*In 1934 at Sarmizegetusa I, too, was initiated in archaeology under the guidance of Professor Daicoviciu. For me this was something new and very interesting, attractive and pleasant. This is where they [the Dacians] had lived; to walk the places they had walked too ... is ... as if you had lived with them. To live again what they have lived. Then and there...This hindsight is something very special*"[8]. He also mentions that important personalities of the time visited the excavations, such as Prime Minister Gheorghe Tătărăscu and King Carol II.

The Collection

In his notes, Petru Balosin describes how he found the first materials: "'W*hen I returned to Tărtăria, to my great surprise and enjoy, [I had] a happy occurrence*: *in front of the Tărtăria halt, along the railway, to the west, there is a piece of land long of ... meters and wide of ... meters, there, where the field is going down suddenly to the Mureș River Meadow in the so-called Tărtăria Swamp (Balta Tărtăriei); this is the pasture and the place where cattle are grazing, that extends to the Mureș River"...*

"*... By chance, on a warm day at the end of summer, in 1934, I passed over this piece of land [in front of the halt] and suddenly I found a batch of clay pots [potsherds]. These pots were thick and judging by their shape, obviously they belonged to large pots. Looking closer, at some distance there was another batch. Walking lengthwise, I found several other batches until the end of the piece. ... What had happened ... the*

[7] *EM*, XXV, p. 259.

[8] Journals and memories about his archaeological and education activity.

ROMÂNIA
MINISTERUL INSTRUCȚIUNII

DIPLOMA DE CAPACITATE
PENTRU INVĂȚĂTOR

Fig. I.3. Petru Balosin's capacity diploma, 1934.

Fig. I. 4. Petru Balosin's collection at Alba Iulia. Roman pieces with stamps (Alba Iulia?).

farmer [the owner] gathered the sherds and grouped them between his own boundary and of his neighbour ... Some sherds have upright lines scratched in different geometric shapes .... I took some of the more special sherds and brought them home ... I specially investigated the area between the railway and the fallow end ... during autumn I was looking in the plowed traces to see what the plough took out from the clod .... It was an important moment when I found the first polished stone object .... Now it was evident, Tărtăria was a prehistoric locality...".

We do not know how long Petru Balosin collected archaeological materials from Tărtăria. He was an elite schoolteacher, obliged by authorities to end his career: "*With much ardor I was looking to collect pottery sherds with scratches, stone tools, polished stone tools, bone tools objects .... By 1938, I already had a nice collection. I took some exemplars from each category and brought them to the Alba Iulia Museum [in 1938]. The director looked with suspicion telling me to leave the objects there; they were not for me and better to take care of my own affairs. And if I would really like to collect something, to collect folklore not stones ... I explained to him that I have collected the pieces following the plough traces and that they are on the surface of the soil, nobody sees them, nobody knows what they are, nobody collects them because they believe they are not important*". This episode ended his cooperation with the Alba Iulia Museum. He also collected archaeological materials that appeared during the digging of ditches for drainage: tiles, bricks, large vessels (pithoi) with the stamp of XIII Gemina Legion, which are now part of his family's collection (unpublished).

Some stamps impressions from his collection (fig. I.4) might come from Alba Iulia[9]. Information regarding the workers used by N. Vlassa in his excavations at Tărtăria comes from a native, Julescu Ioan, who lived in the house named by K. Horedt "*Diribau*". He recalls that during N. Vlassa's excavations (which resulted in the discovery of the ritual pit and the famous Tărtăria Tablets) a student was present, too. He recalls that only mature people from the village worked on the excavations: he mentions himself (at that time he had a military permission) and two young, unmarried girls. However, he had not attended the last days of the excavation because his permission had ended.

Because he is the last survivor of the entire team that excavated with Vlassa, we have no further information about the excavation of the ritual pit. Julescu also mentions Dr. Inocu (also a Tărtăria native), who is now a professor at Cluj-Napoca University, Department of Physics, who mentioned that he had been present during the discovery of the tablets. According to Ioan Julescu, Dr. Inocu did not participate in the excavations since he was just a small boy at the time; he may have visited the area

[9] This happens frequently in the case of private collections that lack an inventory.

before or after the excavations while going to the Mureș River for a swim. We have been astonished to find out that this collection had been donated to the Cluj-Napoca Museum. We would like to thank again to our colleagues from the museum, Luminița Săsăran – Hrineac and Diana Bindea, for informing us about the collection and bringing materials for study and valorization. The collection was brought to the museum by Sever Rus according to the will of the mentioned collector. The document made with this occasion mentions 47 entire and fragmentary axes, 9 fragments from different carved tools, 3 fragments of clay legs, 1 fragment of a clay weight for fishing net, 2 fragments of siftings, 10 ornamented ceramic fragments, 13 ceramic fragments.

Fig. I. 5. Tărtăria – Groapa Luncii.

CHAPTER II
ARCHAEOLOGICAL RESEARCH AT TĂRTĂRIA[10]

GHEORGHE LAZAROVICI

A. THE EXCAVATIONS AND RESEARCH OF KURT HOREDT

The results of Kurt Horedt's 1942 and 1943 excavations at Tărtăria have been published in one report in the *Apulum* journal[11]. The archaeological material was identified and inventoried by Nicolae Vlassa in December 1959 in the Cluj museum, IN. Later on, the register was updated and now an electronic inventory is in use.

	1942 cassette A	1943 Derubau East	1943 cassette B	1943 cassette B Pithouse	1943 cassette C	1943 cassette E	1943 Derubau W CFR	1943 Derubau East	1943 cassette D	1943 Seection F	1943 West of the Bridge	Sum	Percent
Sum	1046	5	196	10	257	220	21	17	12	24	65	1878	%
Percent	55.7	0.3	10.4	0.5	13.7	11.7	1.1	0.9	0.6	1.2	3.5		100
0.25–0.45	347											347	18.5

Table II.1. Distribution of archaeological material on different archaeological units (K. Horedt 1942, 1943), see annex 1 below.

Our statistics reflect a selected lot of 1878 ceramic fragments (Table II.1). Most of the fragments (Annex 1, Table 1A) belong to Cassette A, investigated in 1941, number 1046 fragments (55.7%), and come from the 0.25–0.45 m layer (18,.5%), followed by those discovered between 0.45–0.65 m (12.7%). From Cassette C there are 257 fragments (13.7%), from Cassette E 220 fragments (11.7%), from Cassette B 196 fragments (10.43%), followed by others (see Table II.1). As mentioned, the materials have been sorted, and only the most significant ones have been kept (lips, bases, bigger fragments, or fragments with decorations).

The archaeological determinations made by N. Vlassa while working on the inventory are still relevant today. Nevertheless, over time, new developments have taken place: for example, what was then called *Baden culture* today is equivalent to *Coțofeni I*, and what was considered *Baden–Kostolac* is now *Coțofeni II*. We have noticed the same archaeological (cultural) mixture when studying the materials. This fact is explained by the excavation system in use at that time, on layers of 20 cm or even more. Only one complex was identified by K. Horedt, named *Cabana*. The inscription on the tickets reads *"fond de cabane"* without specifying if it was a hut, pit house, semi-subterranean house or houses.

The described pottery contains chaff and has thick walls, similar to the ceramics found in the western part of the bridge.

The inventory mentions that this material is not from Balomir. We believe that N. Vlassa made this note in 1959 or later (when he was excavating at Tărtăria). On the topographic plan of Professor Kurt Horedt (there are five sites, I–V), the site is located in the western part (1942–1943).

The place called *"Groapa Luncii"* or *"Balta Tărtăriei"* is a marshy area that extends up to the Mureș River[12], used by Tărtăria locals as pasture. The area incorporates older Mureș riverbeds. Earlier, the Mureș flowed under the archaeological site, and during periods of overflow, it was bringing lots of water and fishes into the older riverbeds.

[10] Gheorghe Lazarovici made the photos included in this chapter.

[11] Horedt K. 1949.

[12] Petru Balosin's journal, 1980.

	1942 Cass A	1943 Cass C	1943 Cass E	1943 Cass B	1943 Cass B Cabana	1943 Derubau CFR	1943 Derubau East	1943 Section D	1943 Section F	1943 Bridge West	Sum	Percent
0.20–0.50 m; Baden, Kostolac, Vinča, Petrești			74								74	3.94
0.50–0.70 m; Vinča, Petrești			70								70	3.72
0.20–0.40 m; Baden, Kostolac, Petrești, Vinča		66									66	3.51
1.40–1.65 m	66										66	3.51
Basarabi										63	63	3.35
0–0.20 m; Baden, Kostolac, Petrești, Vinča		45									45	2.39
0.40–0.60 m; Kostolac, Petrești, Vinča		30									30	1.56
0.60–0.80 m; Petrești, Vinča		26									26	1.38
0.80–1 m; Petrești, Vinča		26									26	1.38
0.70–0.90 m; Vinča, Petrești			25								25	1.33
2.20–2.40 m				23							23	1.22
Coțofeni							17				20	1.06
1.25–1.45 m; Petrești, Vinča		19									19	1.01
0.75–0.85 m				18							18	0.95
0.90–1.15 m; Vinča, Petrești			17								17	0.9
1–1.25 m; Petrești, Vinča		14									14	0.74
1.15–1.40 m; Vinča, Baden			12								12	0.64
1.45–1.60 m; Vinča		11									11	0.58
0.20–0.50; Baden, Kostolac, Vinča			10								10	0.532
0.65–0.85 m; Petrești									10		10	0.53
1.60–1.80 m; Vinča, Petrești			8								8	0.42
1.60–1.95 m; Vinča		6									6	0.32
Hallstatt, Basarabi, Neolithic						4					5	0.26
0–0.20; Baden, Kostolac, Vinča			4								4	0.21
Early Medieval											3	0.16
0–0.20 m; Baden, Kostolac		3									3	0.16
0–0.20 m; Baden, Kostolac		3									3	0.16
0–0.20 m; Petrești, Buenos Aires[13]		2									2	0.10
0.40–0.60 m; Petrești, Vinča		2									2	0.10
Criș, chaff with thick walls										1	1	0.05
Criș, chaff with thick walls										1	1	0.05
0.35–0.45 m; fireplace support 0.60				1							1	0.05
1.10–1.30 m; Petrești									1		1	0.05
1.25–1.45 m; Vinča		1									1	0.05
Percent	**55.7**	**13.7**	**11.7**	**10.5**	**0.5**	**1.1**	**0.9**	**0.6**	**1.2**	**3.5**		**100**

Table II.2. Stratigraphy and cultural ascribing, K. Horedt excavations 1942–1943, see annex 2

West of the (train) Halt, the national road turns under the hill located on top of Tărtăria's Halt (today, a parking place and the Monument with the Tablets are in this spot). The road had to be enlarged and straightened; the work was done by military soldiers (from here the term *Derubau* and not *Deriban* as it is written in the new inventories; locals also pronounce *Diribau*). Today, in one of the houses used earlier by soldiers lives one of N. Vlassa's ex-workers (Ioan Julescu).

K. Horedt made rescue excavations in several areas of the site, making soundings and collecting archaeological materials. In the plans of the sites (fig. II.3/I; II.5/1, 4), the first settlement is mentioned on the hill, on top of CFR (Căile Ferate Române – Romanian Railways) Halt. From here twenty ceramic fragments belonging to Coțofeni II–III have been inventoried.

[13] We suppose that the "Buenos Aires" name from the inventory is referring to the pottery discovered in the profile.

They were decorated with *Fürchenstich*[14] (maybe related with the Bronze Age through associations with Ighiu discoveries[15]). This site was identified by our colleagues from Alba Iulia[16] as well as by ourselves together with a student team and attributed to the Coțofeni culture.

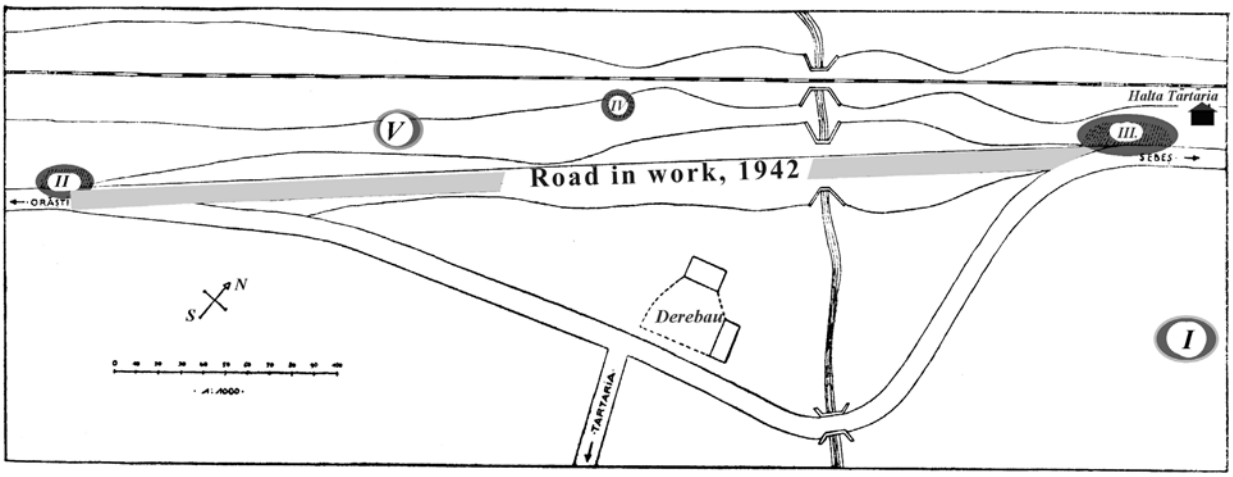

Fig. II.3. Plan of the sites located westward from Tărtăria train Halt; Fig. II.4. ▼ behind Valea Rea, Diribau.

The Cluj-Napoca inventory (National Historical Museum of Transylvania = MNIT) from the same place contains a Coțofeni ceramic fragment and a later one, attributed to the Roman Period[17].

The second site is at the intersection of the old and new route (fig. II.3/II; II.5/2). Two houses with pottery related to Hallstatt (Basarabi culture after descriptions and N. Vlassa's determinations from the inventories)[18] are noted in this spot. The Cluj-Napoca inventory includes two other fragments with chaff attributed by N. Vlassa to the Criș culture[19]. On the Tărtăria's panel in the Cluj-Napoca Museum, some agglutinated Starčevo-Criș fragments might belong to this site. A Starčevo-Criș site is known at Balomir (lower, point 6).

Other archaeological sites:

- Near the train halt (fig. II.3/ n. III, II.5/ n. 3), under the older road, four graves have been discovered with the subjects arranged in a crushed position; as inventory, they had three cups with two handles and one handle with a button. They belong to the Noua culture and K. Horedt attributed them to the Hallstatt habitation[20].
- Near the railway (fig. II.3/ n. IV, II.5/ n. 4), from the pits dug to take soil to build the railway, fired clay bands and ceramic fragments were discovered. They are similar to those discovered in point n. 2, fig. II.5, which belongs to Basarabi culture.

[14] Horedt K. 1949, p. 57; *RepAlba* 1995, s.v. Tărtăria and the old bibliography: MNIT, inventory IN 15.603–15.621; 15.720 from embankment (high = H, in the inventory).
[15] Horedt K. 1949, p. 95, n. 16.
[16] *RepAlba* 1995, p. 186, map point 2.
[17] MNIT: inventory IN. 15.720–15721.
[18] Horedt K. 1949, p. 57–58; M; 63 ceramic fragments inventoried, MNIT IN. 15.639–15.701.
[19] MNIT IN.15702–15703.
[20] Horedt K. 1949, p. 57, n. 17–18; *RepAlba* 1995, p. 186, point 3b is noticed as belonging to the Noua culture.

Fig. II.5. The Tărtăria archaeological area.

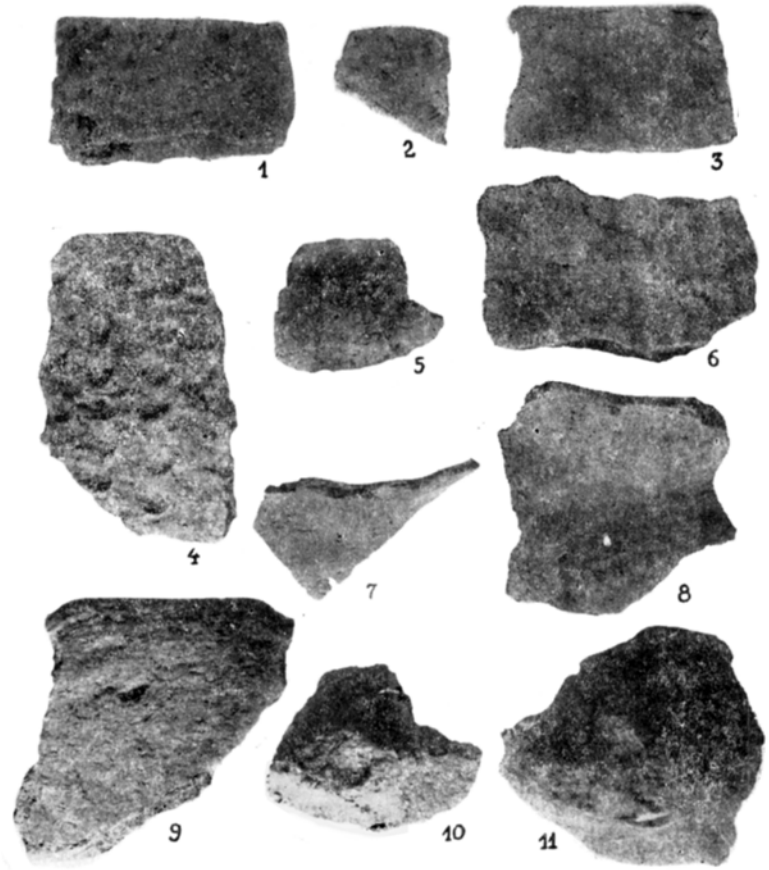

Fig. II.6. Balomir, Starčevo-Criș IV – Vinča A; 9, Starčevo-Criș II.

- Between the points II and IV (fig. II.3), between the railway and the new road (fig. II.3/ n. V, II.5/ n. 5), discoveries include a pair of iron spurs with rivets from the X century.
- It has been associated with Țeligrad, which is located across the river of the Neolithic site.
- A pit-house was discovered at the edge of the Balomir village, between Tărtăria and Balomir (at about 1.6 km west of the *Groapa Luncii* site). Its location is on the second narrow terrace of the river between the railway and the Mureș riverbad. From here, Gh. Lazarovici and N. Gudea took out Vinča A and Starčevo-Criș IV materials (fig. II.6) and a copper needle. Based on painted ceramic fragments with black transparent bands, and empty cup legs, N. Vlassa attributed the materials to Vinča A – Starčevo-Criș[21].
- Neolithic ceramic fragments appear sporadically on the terrace. Further on there are other ceramic fragments belonging to Coțofeni culture. Ch. Popa associates these materials with those discovered at *Valea Rea* (as mentioned in the older literature)[22].
- Blandiana – *La Brod* (fig. II.5/ n. 8) represents the site with pottery and a fireplace "final Tisza" (Bodrogkeresztúr) that was discovered on the left side of the Mureș River, on the same side as *Groapa Luncii,* about 2 km from it. Fig. II.5/ n. 9 depicts the point where a cremated Dacian grave from II century BC was discovered, including a rich inventory (lance, curb, a bended dagger, iron buckle and a clay pot with two handles)[23].

In the same area, later on called Blandiana A (fig. II.5/ n. 10), there is a site related to the IX–X centuries; associated to a necropolis; Roman materials (inscriptions and pottery) and an Early Medieval cemetery[24] have been discovered in the point called *Țeligrad* (fig. II.5/ n. 11) located across the river from the *Groapa Luncii* site; Celtic graves with pots from III–II century BC have been found towards the terrace, on a clay quarry;

21 Vlassa N. 1967, fig. 2–3, 6.
22 Popa Ch. 2009, *Repertoire* I, p. 38.
23 *RepAlba* 1995, p. 60 point 1c from the excavations made by Gh. Angel and H. Ciugudean.
24 *RepAlba* 1995, p. 44, n. 2–4.

in the point called *Lunca Fermei* or *Șipot* there is a Dacian site, century I BC – I A.C.[25]. There are many sites in the area. Based only on recent discoveries (points 10–12 in fig. III.5 belong to Blandiana village), it is possible to ascertain that the main course of the Mureș River was flowing through the place called *Groapa Luncii*. If different, the Balomir farmers would have had difficulties in crossing the Mureș River to reach their farming fields. These fields escaped the floodings in 2005 (fig. II.7a).

Fig. II.7: a–b, Mureș River and the overflowed area.

The photos above were made during recent floodings in the area, when Mureș overpassed its bed (fig. II.7a–b). They show how water returns to *Groapa Luncii* (fig. II.7a), and when retracting, the former riverbed remains full of water (fig. II.7b).

Surface or Cassette A

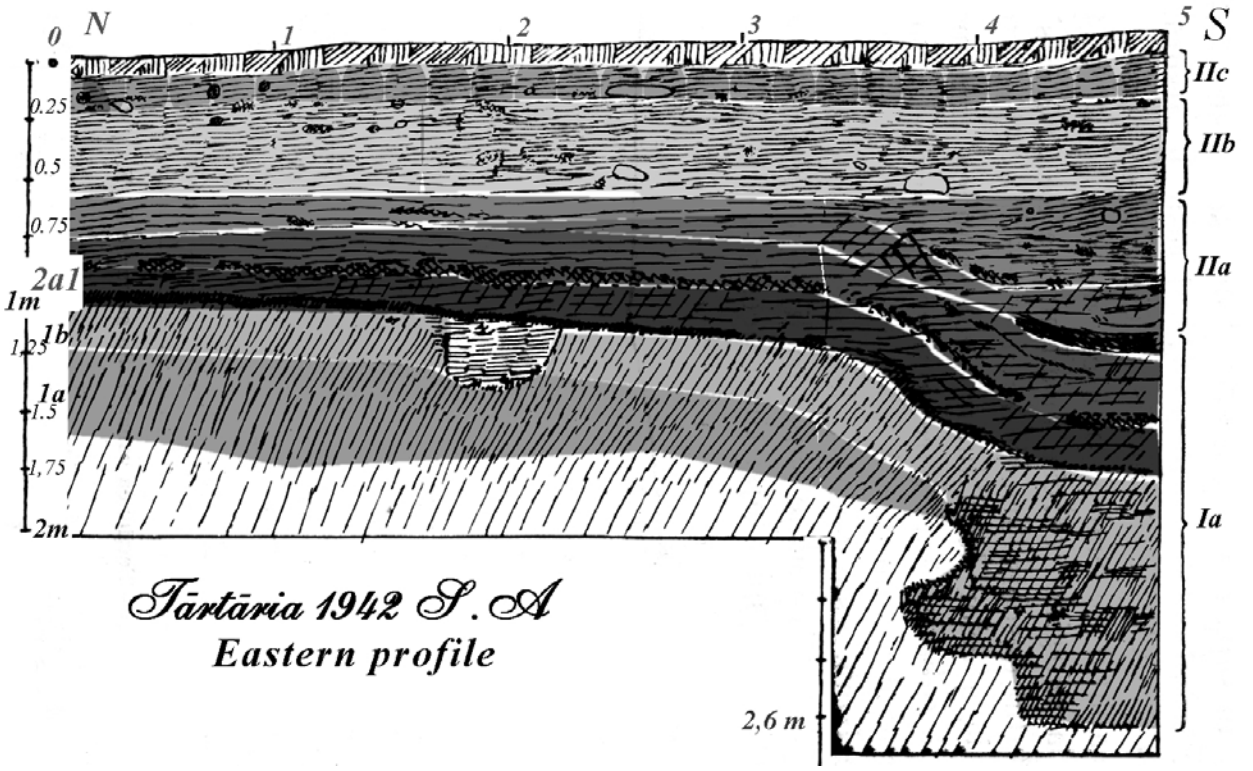

Fig. II.8. Profile of Surface A, Profile Est, Pit-house 3, after K. Horedt 1949.

From Surface A[26] we have the closed stratigraphic profile (fig. II.7) that allows us to make correspondences between the profiles drawn by K. Horedt, N. Vlassa and I. Paul. Prof. K. Horedt pointed out eight cultural levels, virgin soil and humus.

[25] *RepAlba* 1995, p. 44, n. 2–4.
[26] Horedt K. 1949, p. 47–50.

Fig. II.9. Foeni – Petrești pottery, level 2a1.

Fig. II.10. Vinča pottery.

Fig. II.11a–b. Pottery from level 1b, Vinča B1.

Unfortunately, the material has been collected from depths, based on the assumed cultural layers. When drawing the profile, K. Horedt took into consideration the levels observed at the end of the excavations.

Therefore, there is a great mixture of materials. From level IIc, 129 ceramic fragments have been inventoried (IN 13.838–13.966).

In squares 3 and 4 there have been strong settles because of the pit houses and semi-subterranean houses located here (this assumption is based on the profile). The inventories do not name the cultures. Among the materials we have studied, there are some fragments belonging to Coțofeni culture.

The upper layers have few potteries, as K. Horedt noted in his report. K. Horedt's notes are more clear, and they include a first level with fireplaces and stone lines, marked as **level IIc**.

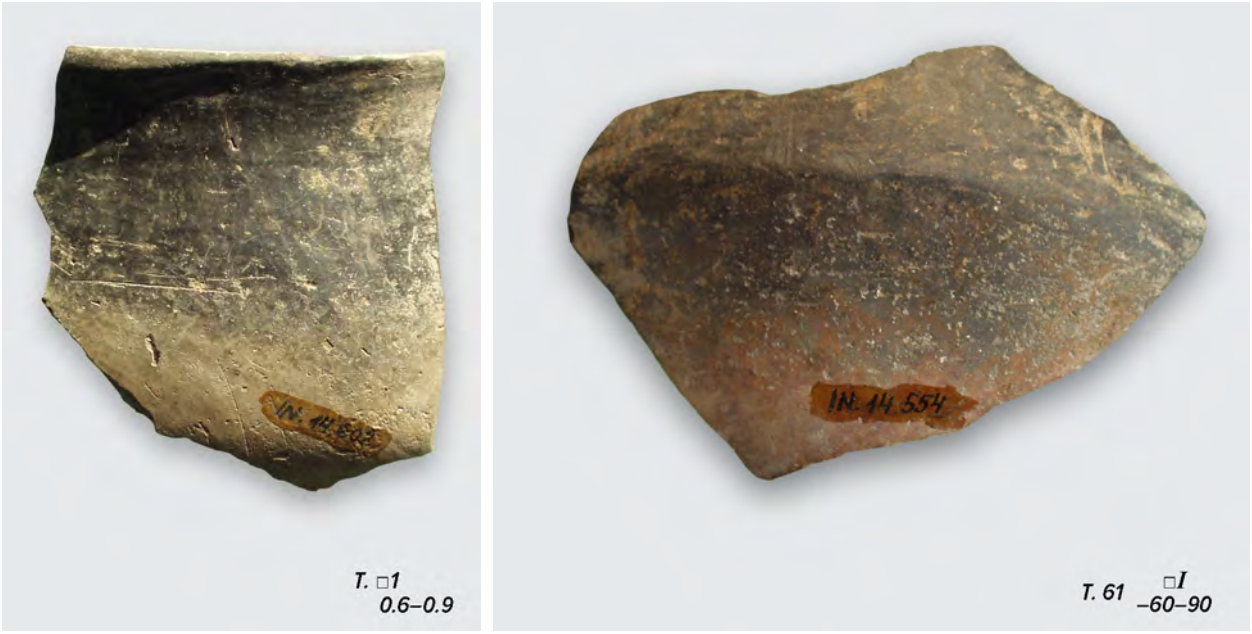

Fig. II.12a–b. Pottery from Vinča A3-B1 level.

In **level IIb** (0.25 – 0.65 m) there are several big grinding stones discovered *in situ*. Characteristic materials include a black polished ceramic fragment with a strong shoulder that belongs to Petrești A (IN 14439). In squares or at meter 5 there is a semi-subterranean house (charcoal fragments descend in the margin of the complex). A settlement from Vinča A at Petrești is not possible; the settlement lasted one or two centuries. It is quite interesting that the author does not point out the existence of traces from houses, which suggests that these complexes were made of wood and were not fired. This also explains the lack of adobe traces.

Level IIa (0.65 – 0.90/0.95 m), is marked in the northern part by a layer covering another one (K. Horedt described it as a red blanket). We conclude that this was a burned area, possibly connected with some wooden complexes, where only the spaces in between the girders were covered with clay. In other cases, Horedt does not mention adobes. All the material from this level belongs to the Petrești culture. Based on the curvature of the pots we believe it is an early Petrești phase. The term in use during Horedt's era was *Mittelsibenbürgische bemalte Keramik* = ***Painted pottery of Central Transylvania,*** in order to distinguish it from the Ariușd painted pottery from Southeastern Transylvania. This layer was an intermediary one, with scarce pottery fragments.

In order to distinguish the next level, which is marked on Horedt's profile as **IIa**, we have labeled it as **2a1.**

This level contains Foeni materials, suggesting an early stage that leads to Petrești A. Kurt Horedt marked two levels in his profile, but he described only level **Ia (0.95 – 1.05 m)**, so we can deduce that is also a **1b** level. The upper level belongs to the horizon with the pit-house (pit-house = B3 according to our numbering B1 belongs to N. Vlassa's plan; B2 is in the same cassette), partially excavated by K. Horedt and marked by us as level **1b**. A stemmed cup fragment characteristic for Vinča A3–B1 stage, and a pot with notches on the rim, less frequent but not unusual, belong to this level (level 1b).

Sections B–F

These sections have been opened one after another in order to investigate a large pit-house (B4) belonging to the first habitation level. In section B, several digging levels are a maximum of 10 cm deep. A pit-house (named *cabană* by Horedt, from the French *fond de cabane*) has been found here. The base of the pit-house was at –3.80 m from the surface of the soil[27]. In the same section, an oven for firing pots has been discovered at –1.90 m depth, in square 7 – 8. Based on its depth, the oven belongs to the level named in the profile's legend "***Turdaș*** floor". Today what was then named *Turdaș* corresponds to *Vinča A–B horizons* (the discoveries from the Turdaș site and Turdaș culture belong to the period Vinča B2/C – C1, and represent a Late Neolithic culture)[28].

[27] Horedt K. 1949, p. 50–51, fig. 5–6.

[28] Our opinions in Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 568, 594 and bibliography of the problem.

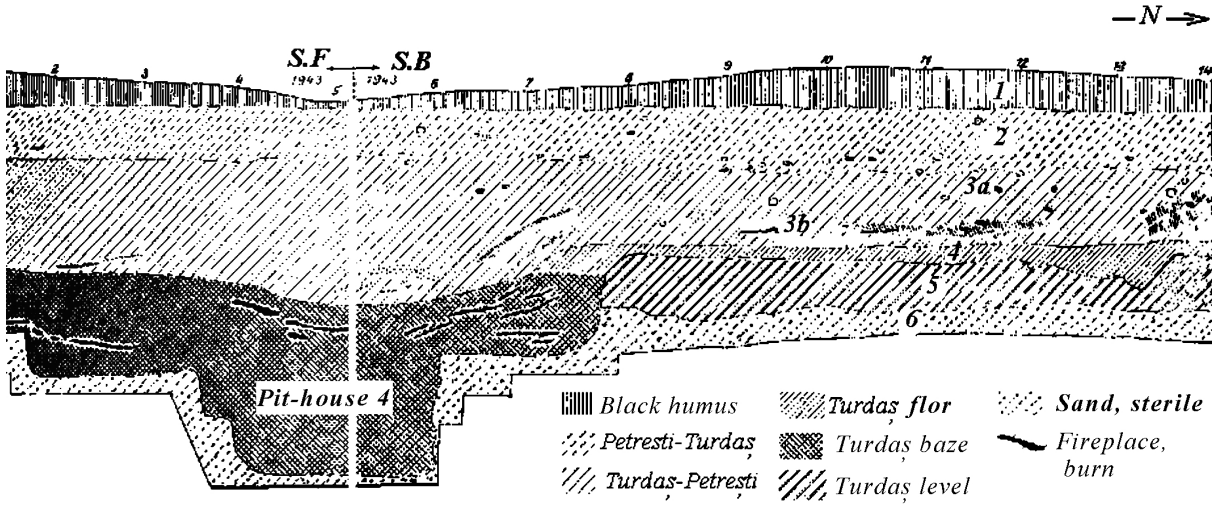

Fig. II.13. Sections B, F, Pit-house (Bordeiul) B4, after K. Horedt 1949.

One side of the pit-house was 2.2 m long while the household area and sleeping spaces were 6 m long. This means that the sides had over 1.5 m in length. On the southern side, there were traces from an oblique girder that sustained the roof, a rather unique situation. This allowed us to reconstruct the pit house. The pit in the profile of B3 might have had a similar role. Alternatively, it may have had a different purpose, since it was situated in the lower part of the pit-house and could not offer enough height for the dwelling. **196 pieces** have been inventoried from this section. However, many more pieces have been thrown away because they were considered "atypical" by the archaeologist in charge.

The horizons with Coțofeni materials are missing from the profile's legend. Nevertheless, there are four typical Coțofeni Ia ceramic fragments (lower, fig. II.16). **Humus** strata are 20–35 cm thick and 12 ceramic fragments have been discovered in them. Among them, one is typical for the Turdaș culture (in the new meaning, not that used by Horedt, Vlassa or Paul: fig. II.14), which may be important because there are only a few Turdaș complexes. Most of them were destroyed, or they may have been only seasonal sites; no Coțofeni I complex is mentioned.

Fig. II.14. A Turdaș fragment – 0.30 cm.

From the depth **–0.35–0.45 m**, are 57 ceramic fragments have been inventoried. It is possible that the Coțofeni materials come from this level.

A fireplace support (MNIT IN 14948) was discovered at **–0.60 m** depth.

From **–0.75–0.85 cm** there are 18 Petrești ceramic fragments, which shows that the habitation level has been excavated separately (marked on the profile by us such as **2)**, because treading levels and stones have been found. In other sections, these were used as bases for the surface houses. In the legend, this layer is defined as ***Petrești – Turdaș (2 at us)***, Petrești level. From **–0.85–1 m** there are 15 ceramic fragments. This is the level that marks the passage from ***Petrești – Turdaș*** to Turdaș – ***Petrești*** (terminology also used by N. Vlassa in 1961). We insist on these correlation issues because in this level the first real Turdaș ceramic fragments appear (fig. II.14). In his study published in *Prehistorische Zeitschrift*, Iuliu Paul mentions materials of ***Turdaș style*** in the Petrești A and even AB levels[29].

[29] Paul I. 1981, p. 224–225, Pl. 18, marked with thin, vertical parallel lines.

From **–1 m–1.20 m** there are 16 ceramic fragments inventoried that might correspond to a treading level that separates the Petrești layer from the Vinča ones. From –1.2–1.4 m there are 15 ceramic fragments.

The cultural layer ***Turdaș – Petrești*** is found between **–1.40–1.70 m** (layer **3a to us**). It is divided in two, because it has traces of a treading level (**3b to us**). From **–1.7–2 m** there are 10 ceramic fragments. In this layer we have observed only one burned level or a level with seasonal fireplaces at **–1.9 m**. In this level in Section F there was a habitation complex (a floor). In its margin there was the mouth (oriented towards the inner part) of an oven for firing pottery. The structure of the fireplace consists of stones and ceramic fragments.

Ceramic from ***Pit-house 4 (Bordeiul 4, B4)*** is not inventoried based on the depth at which it was discovered. When studying the profile, it is possible to identify several depths (fig. II.13). The pottery discovered in B4 is of a very good quality, Vinča A2, with a specific luster, fine pleating and bitronconic shapes.

Materials from **Section F** have been inventoried based on three depths (maybe excavated such as): **0–0.65 m**; **–0.65–0.85 m, containing** only Petrești materials (MNIT IN 15.586–15.595); **–1.10–1.30 m** the ***Turdaș – Petrești layer*** (level **3a to us**). Although the stratigraphy of the two sections is a little bit different, the situation is rather obvious[30]. A fragment considered to be Petrești by N. Vlassa was discovered at –1.3 m (MNIT IN 15.602).

Surface or Cassette C (fig. II.15a–b, fig. II.24)

The Eastern end of this section is at about 30 m from the western side of Cassette A, in the same area. Professor K. Horedt confessed that he was unable to excavate a larger area because of the agricultural fields ("not *to destroy the cultivated fields*").

Therefore, he excavated in the margin of the site towards its northern limit. From the surface investigated by Kurt Horedt, 257 ceramic fragments have been inventoried. The author did not publish any stratigraphic profile of the surface, but he did underline the presence of two habitation levels[31]. N. Vlassa's archive contained an unpublished plan of this cassette (fig. II.15b), which was included in the surface he had cleaned. The squares system belongs to N. Vlassa. Kurt Horedt mentions that the upper level 0.20–0.40 m belongs to the same civilization, ***Petrești – Turdaș*** or ***Turdaș – Petrești***, which he considered to be phases of the same culture and not two different cultures.

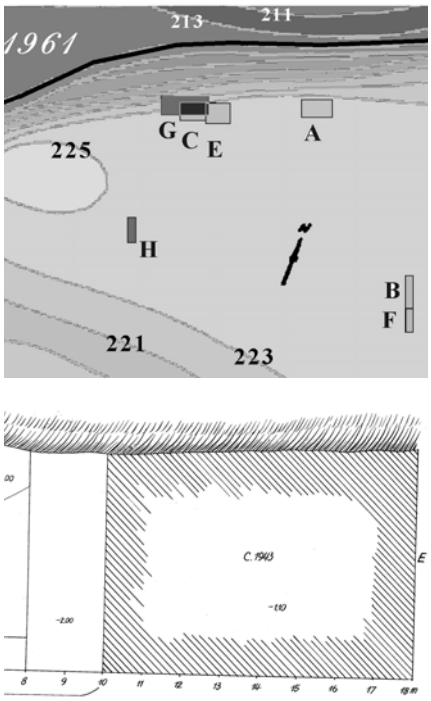

Fig. II.15. Tărtăria: a) location of the sections in the Western part; b) plan with K. Horedt' Surface C, 1943, after N. Vlassa 1961.

N. Vlassa classified and inventoried the material from this complex. The situation is different here than in other complexes. Based on the inventory it is possible to note that the digging levels, as well as the materials' association, are different. The situation is as follows:

- 0–0.20 m: 56 fragments, ascribed to Baden, Kostolac, Petrești, Vinča cultures;
- –0.20–0.40 m: 56 fragments ascribed to the same cultures: Baden, Kostolac, Petrești, Vinča;
- –0.40–0.60 m: 30 fragments ascribed only to Kostolac, Petrești, Vinča cultures, Baden materials are missing;
- –0.60–0.80 m: 28 fragments ascribed to Petrești and Vinča cultures;
- –0.80–1 m: 16 fragments ascribed to Petrești and Vinča cultures;
- –1–1.25 m: 14 fragments ascribed to Petrești and Vinča cultures;
- –1.25–1.45 m: 14 fragments ascribed to Petrești and Vinča cultures;
- –1.45–1.60 m: 12 fragments ascribed only to Vinča culture.
- –1.60–1.95 m: 2 fragments ascribed to Vinča culture.

[30] When we started the work for this study, MNIT was in general reconstruction, including the storages. Therefore we have been unable to access all materials; some have not been included in our database or identified. So in this study we are referring to the materials we have studied before the reconstruction of the museum.

[31] Horedt K. 1949, p. 52–53, fig. 7.

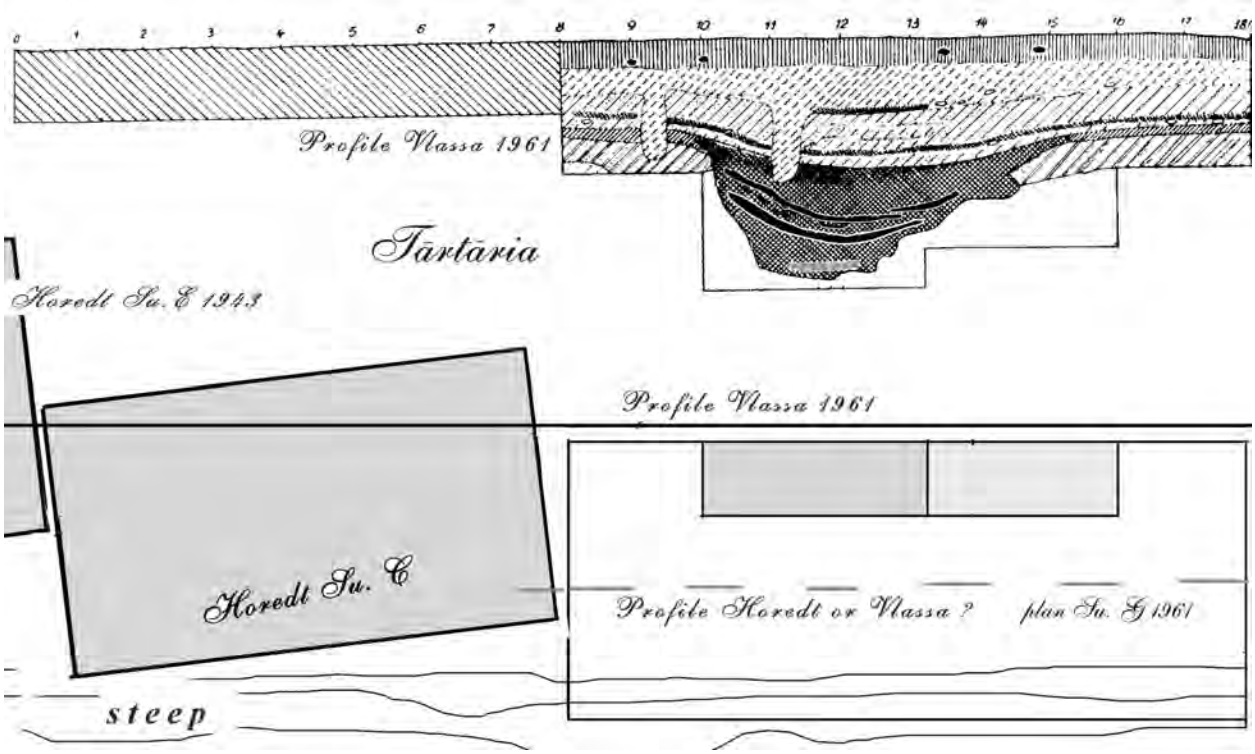

Fig. II.15. c) Plan of the excavations made by K. Horedt and N. Vlassa.

Fig. II.16. A Coțofeni I fragment from Surface C.

N. Vlassa officially placed his inventory in the custody of the museum 31 December, 1959. Therefore, it is possible to date the material. The classifications he used are very important, even if they no longer correspond to today's cultural sketch. In this report, N. Vlassa used another terminology comparable with the one he used in his report concerning Tărtăria from 1961.

He considered the materials from the upper level, named Baden, to be as late as the Kostolac ones. At that time, the Kostolac materials, named Corpadea, were assumed to correspond with the Coțofeni II phase[32]. However, one of the ceramic fragments is Coțofeni I (fig. II.15). P. Roman ascribes such materials to the Coțofeni I phase with analogies at Leliceni, Bratei – *Nisipărie*, Locusteni, and Gornea a.s.o., with similarities to Tărtăria[33].

The site is also mentioned by H. Ciugudean[34]. It has to be mentioned that K. Horedt defined an older phase of the Coțofeni culture, named Coțofeni – Tărtăria[35]. Today such materials are considered to be from the older Baden phase. Even Serbian colleagues have defined Coțofeni I materials as Baden. Sometimes N. Vlassa defines this phase as Petrești – Coțofeni. In his later studies, he refers to is as Coțofeni 0 materials, having in mind some materials from Turdaș that do not have a straightforward stratigraphic context. In the same level (withought mentioning the depth), two fragments stand out with white *engobe*, characteristic of the Zau culture.

32 Comments on the terminology of the phases at Ciugudean H. 2000, p. 45 ff.
33 Roman P. 1976, pl. 2, 67, n. 280, Tărtăria; for motifs of E type, pl. 53–66.
34 Ciugudean H. 2000, p. 83, n. 601 and bibliography.
35 Ciugudean H. 2000, p. 45, apud Horedt K. 1968.

It is interesting to note that in 1959, in the inventories, N. Vlassa defined the inferior and middle levels (–1.45 –1.90 m) as Vinča and not as ***Turdaș-Petrești***. It is possible that later on he was influenced by the studies of K. Horedt (his PhD Professor) and I. Paul (who says that he introduced this term, ***Turdaș – Petrești***, used by N. Vlassa, but in fact K. Horedt used the term as early as 1949). For the time being, we do not insist on these materials, which will be presented when we discuss the cultures they belong to and their characteristics.

A "fireplace" with several clay solderings (see Chapter III) and a human skeleton have been discovered (see Chapter VI) at this level in a habitation complex.

Surface or Cassette D (fig. II.17)

K. Horedt located Section D (4 × 1 m) in the eastern part of the site. In this area, the cultural layer is thin and poor in archaeological materials.

Virgin soil appeared[36]at about –1 m depth. Only 12 ceramic fragments from this surface have been inventoried (there are many photos of these materials).

Fig. II.17a–b. Vinča A3 – B1 pottery, Surface D.

Section D is very important for the horizontal stratigraphy. Subsequent to the deepest found materials appeared traces of Vinča A3–B1. Several materials belong to Vinča B2. Prior to studying all materials, we believed that Vinča A covered a longer period[37].

Among the materials, some belong to Foeni – Petrești, or to an early Petrești culture. The paste of the pots contains mica. This phenomenon starts in early Turdaș culture and Vinča C1 phase and is present until the Petrești culture (it is rather hard to have an exact picture of the situation because of the lack of statistical data and few materials; most materials were sorted before washing according to the working method of the time).

Among the materials, a pot-stand or a cylindrical pot stands out with red painting on a paste that contains mica. In the same section there are some fragments of stemmed cups belonging to Vinča B2. Generally, the stratigraphy is the same as above.

Surface or Cassette E

This surface has 30m^2 (6 × 5 m) and is situated between Cassettes A and C, in the neighborhood of Surface G made by N. Vlassa in 1961 (fig. II.19).

A large lot of materials has been discovered, containing about 220 ceramic fragments (some depths are missing).

[36] Horedt K. 1949, p. 55.
[37] Lazarovici Gh., Merlini M. 2004/2005.

Fig. II.18. Zau pottery.

- 0–0.20 m: 4 fragments, ascribed to the Baden, Kostolac, Petrești, and Vinča cultures;
- –0.20–0.50 m: 116 fragments ascribed to the Baden, Kostolac, Petrești, and Vinča cultures;
- –0.50–0.70 m: 39 fragments ascribed only to the Vinča and Petrești cultures;
- –0.70–0.90 m: 25 fragments ascribed to the Petrești and Vinča cultures;
- –0.90–1.15 m: 17 fragments ascribed to the Petrești and Vinča cultures; this is the horizon with the two houses mentioned by K. Horedt (fig. III.13);
- –1.15–1.40 m: 12 fragments ascribed to the Baden, Zau (fig. II.18) and Vinča cultures;
- –1.40–1.60 m: this depth is missing from the inventory;
- –1.60–1.80 m: 2 fragments ascribed to Vinča and Petrești cultures.

The presence of these 12 fragments ascribed to the Baden and Vinča cultures, assuming their attribution is correct, could suggest the presence of a pit house. Among the materials found in this section are some fragments with painting belonging to the Petrești culture (stand-pot), and six fragments decorated with incisions and points typical for Vinča B. In addition, some fragments have cult purposes: a pot with a human face, and another fragment from a lid.

In the related southwestern corner of this surface and house, K. Horedt mentions a pit-house (*cabană*) that goes down until –3.2 m depth, where the head of a statuette was discovered. The pottery from this pit-house (our note) has a red background of ***Turdaș type*** (we believe it is Vinča A). The author also specifies that at –0.60 m depth there were some Coțofeni fragments and "***a sherd typical for Boian culture***". Pottery from the layer is: "*red slipped" as well as the painted Turdaș pottery that can be found alike in the burned layer*[38]. The above mentioned Boian materials are in fact Precucuteni I imports. Their presence at –0.60m depth in the layer together with Petrești and Vinča materials raises the problem of their cultural affiliation, which we will disuss later on.

The stratigraphic conclusions of Kurt Horedt are[39] :

- Tărtăria I is a level with pit houses ("*fond des cabanes*") representing habitation complexes;
- Tărtăria IIa is a level with houses (at –1.10 m after the plan); there are two other levels: Tărtăria IIb at –0.60 m, and Tărtăria IIc level at –0.30 m ;
- Tărtăria IIb level, to which he ascribed the Boian A ceramic fragment, is contemporary with one part of the ***Turdaș civilization.*** In footnote 13, K. Horedt makes a very important specification that escaped the attention of many researchers: "*For parallels between Boian A material with Vinča C see Holste division WPY, 26, 1939, p. 12*".
- Level IIc belongs to the horizon with painted ceramics (from –0.30 to –1 m);
- K. Horedt, p. 55: "The *different civilizations and discoveries at Turdaș are all represented at Tărtăria, with the exception of the characteristic signs on the bottom of the pots and of bone combs. It is possible to see the cultural identity of both sites*".

In his conclusions while discussing the archaeological material from his excavations, K. Horedt argued that the Coțofeni seasonal habitation ended the cultural and chronological evolution of the site. Some of his synchronisms regarding the chronological and cultural sketch are still viable, while others are relevant only for the history of the research.

B. Nicolae Vlassa's excavations

In September 1961, N. Vlassa, accompanied by Iuliu Paul (and Attila László as a student), restarted excavations at Tărtăria. I. Paul, for personal reasons, retired from this task[40]. The excavations were started *"to obtain a more precise stratigraphy"*[41]. N. Vlassa's excavations intercepted a part of Surface C dug by K. Horedt. However, he did not manage to delimit its margins precisely, which makes it difficult to locate them with precision.

[38] Horedt K. 1949, p. 53.
[39] Horedt K. 1949, p. 53–55; correctly appreciated by J. Makkay 1990, p. 11–15.
[40] N. Vlassa, as well as I. Paul has comments about this subject.
[41] Vlassa N. 1961; 1963; 1965; 1976, p. 28 ff., this paper contains the most recently revision made by the author.

After a short history concerning the archaeological excavations at Tărtăria, the author makes some stratigraphic and chronological observations, very important for that time:

- Cultural layers are on average about 3 m thick, in some places even 4 m.

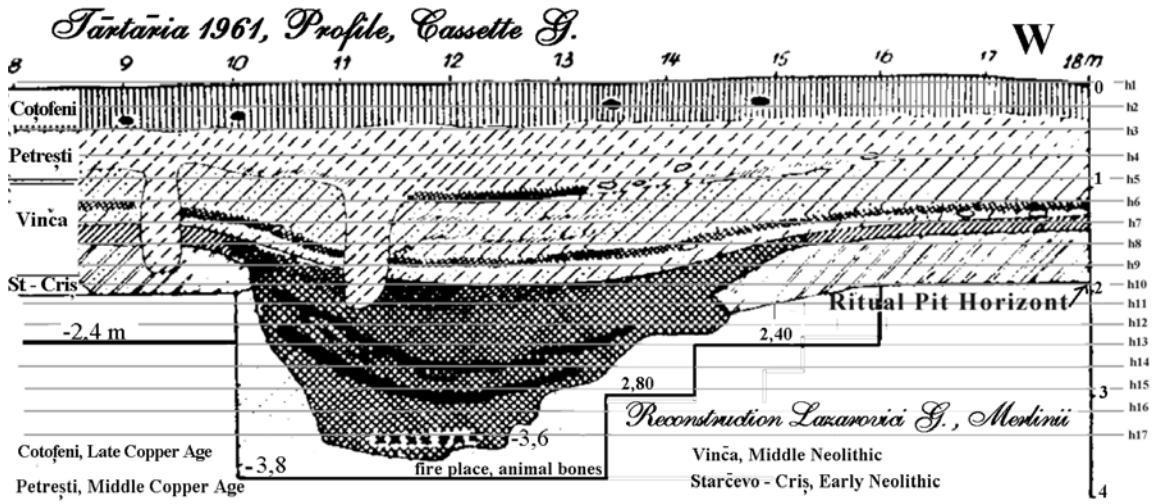

Fig. II.19: a) the Western profile of Surface G of N. Vlassa 1961; b) squares 1–8, K. Horedt, Surface C.

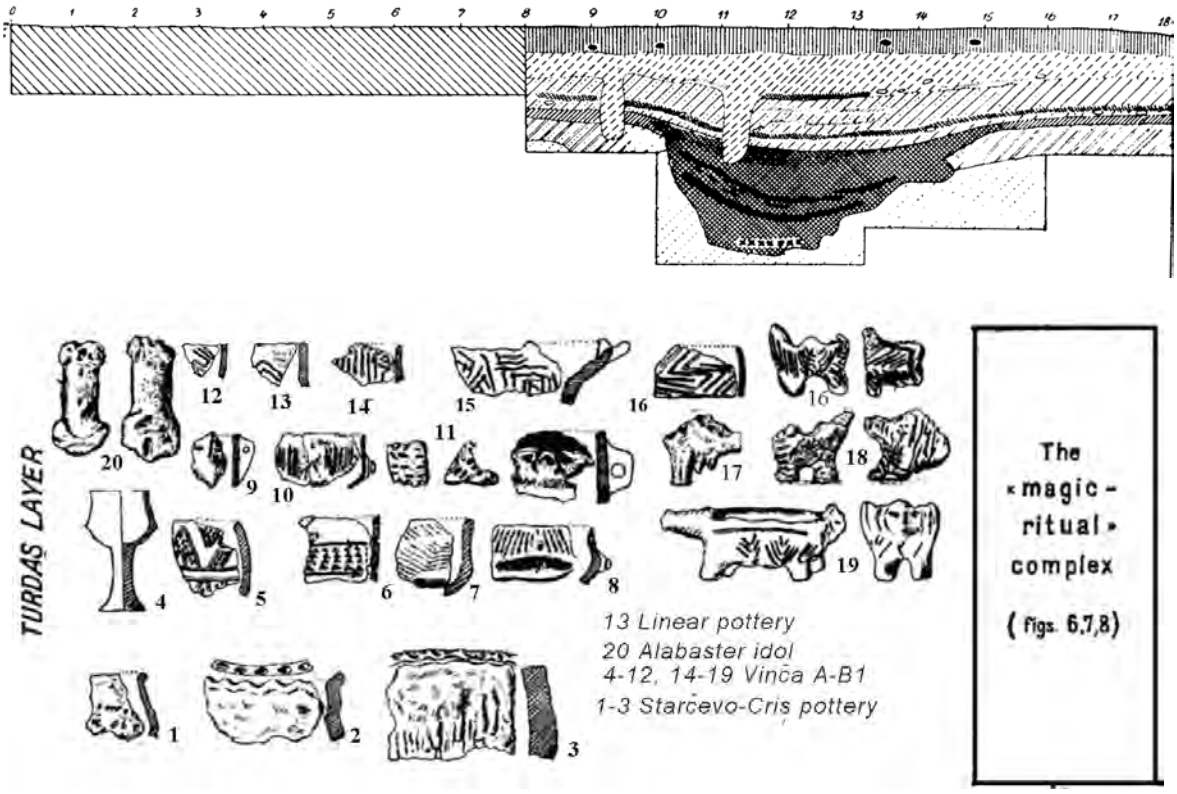

Fig. II.20. Layers Ia (Starčevo-Criș culture), Ib (magic-ritual complex) and; Ic (4–8, Vinča A culture).

Layer I

- Four layers have been observed, chronologically presented by N. Vlassa;
- *„Pottery from the base of this layer has many typological reminiscences and ornamental motifs inherited from late Criș-Starčevo culture in Transylvania"*[42];
- A relatively thin ***Turdaș layer*** (Vinča A2, Vinča A3 our note): "from which descend – in the deep, in the sterile loess – the bases of pit houses"[43], with an "*exceptionally rich ceramic material*"[44].

[42] Vlassa N. 1969, p. 515; 1976, p. 29: at that time he used the term "Starčevo-Criș" for the elements inherited at Tărtăria from older, previous backgrounds.

[43] Vlassa N. 1976, ms., p. 8.

[44] Vlassa N. 1976, p. 29.

The Starčevo-Criș horizon is earlier (SC II/III). The alabaster or marble idols are rather common pieces in levels Vinča A or Vinča C of the Vinča culture. Only one piece might belong to the Linear pottery culture (with incision of two lines (fig. II.20/13)), but the paste seems more of Vinča type.

From the stratigraphic description made by Nicolae Vlassa, it is apparent that he considered the magic-religious complex as an earlier one, while he closed it in a line frame. In his PhD (Vlassa 1976, p. 10) he writes the following about the cult pit "*It is a pit that descended from the first layer (**the Turdaș layer**), filled with ashes soil, on the bottom of it were 26 fired clay idols (Sic!), two Cycladic alabaster idols, a Spondylus bracelet (fig. 6) and three fired clay tablets ...*". In his thesis, N. Vlassa[45] remarks about the first layer "*in the end for the first Tărtăria layer we arrive to a dating that marks just the beginning of B1 phase*".

Moreover "*For sure these data, resulting from the Oriental analogies of the tablets, seem to be too low compared with those obtained through C14 method, so that the discussed problems need further clarifications*" In footnote 24, p. 107, he refers to data presented by H. Quitta.

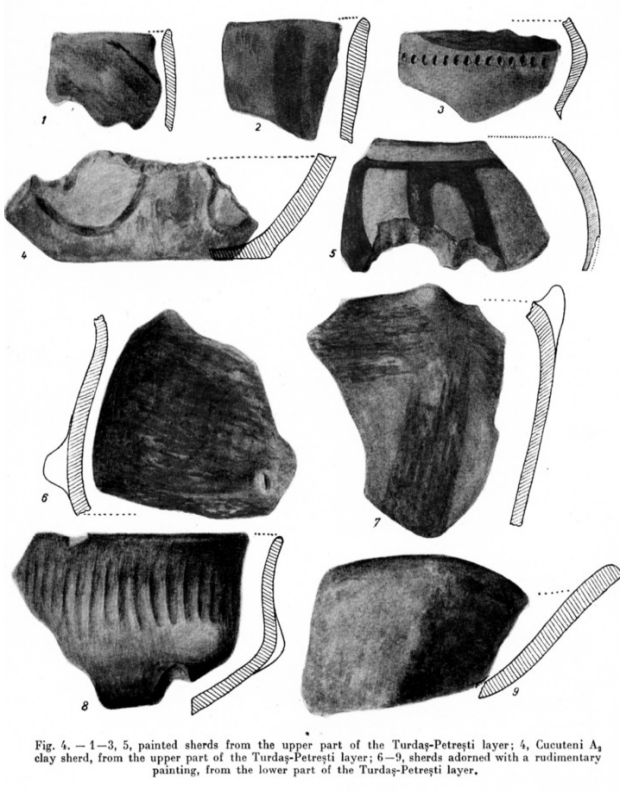

Fig. 4. — 1—3, 5, painted sherds from the upper part of the Turdaș-Petrești layer; 4, Cucuteni A, clay sherd, from the upper part of the Turdaș-Petrești layer; 6—9, sherds adorned with a rudimentary painting, from the lower part of the Turdaș-Petrești layer.

Fig. II.21. Zau culture, painted pottery (Turdaș painted pottery and no. 4, Cucuteni A2 at N. Vlassa).

- Although at Tărtăria there are very clear Vinča A shapes (e.g., the stemmed cup, high and empty inside)[46] and at Balomir, Criș materials, he argues it is possible to draw parallels between both civilizations.
- Another interesting observation regarding this layer is: "*Because of the fact that in the upper part of the layer appear idols with triangular heads and some **Tisza** ceramic fragments* [at that time there were confusions between Banat culture, Tisza I, Szakálhát culture[47]], *we think it is more probable to parallelize this layer with the beginning of Vinča B1 phase*";
- Another important observation regards the imports from this layer: "*In this layer there have been discovered some sherds – evidently imported – belonging to east Slovakian Linear pottery culture*"

In the mentioned note, the author made a substantial and relevant analysis of the discoveries and their correlations (see below for the chronological and cultural relations). We believe that the mentioned fragment, ascribed to the East Slovakian Linear pottery culture (found in a box in storage together with Vinča B and Petrești materials) comes from a later complex, the B1–B2 phase, because at that time this sort of ceramic had not yet spread in Transylvania[48].

Layer II

- N. Vlassa ascribes **the second layer** that exceeds one m thick, to the ***Turdaș – Petrești*** phase. In 1976, for his PhD, he notes "*after the terminology created by colleague I. Paul and defined by us as a material culture*"[49]. In our opinion, this layer is Vinča B1. However, N. Vlassa wrote "*in its vast majority, typological and stylistic, the material of this layer belongs to **Turdaș** culture*"[50].

[45] Vlassa N. 1976, p. 12.

[46] Vlassa N. 1969, p. 515; pl. 5; 1976, p. 29; 1976a, p. 8.

[47] Under the influences of the Hungarian literature (Banner J., Párducz M. 1946–1948, p. 29, 40; Banner J. 1960 for Vinča C and Tisza materials at Čoka) the Vinča A discoveries from Southern Hungary at Ószentiván VIII were considered "*Banat culture*" in the acception of the term at that date. This term was also used for Vinča C discoveries in Hungary at Bicske (Peters E. 1954, p. 25) or in Romania, such as the Turdaș materials from Mintia (Dumitrescu Hortensia 1957, p. 66); for Tisza I (Banner J. 1960; Kutzián Ida 1966, p. 264; Petrescu-Dîmbovița M. 1958, p. 67) (see our opinions in: Lazarovici Gh. 1979, p. 141 ff. Under the name "Intermissions and synthesis"; especially the recent ones with bibliography: Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 208 ff.).

[48] C14 data from Târpești does not represent an argument for such an early dating. In Central Transylvania imports are not sustained by stratigraphic data. They proceed from not well investigated complexes of the Vinča B phase.

[49] Vlassa N. 1976, p. 8.

[50] Vlassa N. 1976, p. 29.

Layer IIa

- N. Vlassa **(the second layer)** recorded that towards the bottom of this layer : *"the painting is still rudimentary, many times we find the well known Vinča-Turdaș motive of point-incised band transposed into the painting"*[51] (fig. II.21 = fig. 4/4 at N. Vlassa). Unfortunately, we have no picture/drawing or inventory entry of such a ceramic fragment. On the typological-stratigraphic plate of the publication, N. Vlassa put other fragments with wide black painted bands on a white background, often fallen down (fig. II.21/1–2, 4–7, 9)[52]. These fragments are related to different phases of the Zau culture. In the same level, he mentions ornaments made through channeling (fig. II.21.8 = Vlassa 1963, fig. 4/6) that are Vinča A and B.
- Under the ***Tisa II*** denomination were included Zau painted pottery (or *"Lumea Nouă"*), and the pottery called *Turdaș rudimentary painted ceramic*[53].

Layer IIb

- About the **second layer** N. Vlassa wrote: *"here appear the first elements of the Petrești painted pottery (mittelsiebenbürgische oder westrumänische bemalte Keramik)"*. For sure we have Petrești discoveries, but based on the stratigraphic profiles of both K. Horedt and N. Vlassa we can make the following observations:
  a) in an excavation organized on depth criteria, a mixture of the later layers will appear involuntary through tamping with the older layers;
  b) habitation complexes, postholes and other pits are only seldom marked on the profile, although they are found in the inventory. Unfortunately, this is the main problem related with digging on depths without squares and the selection of the material on complexes. This method of excavation was also used by I. Paul.

N. Vlassa also refers to Tisa I: at that time, the Tisa culture (Tisza III in Hungarian literature) was considered older then Körös, or contemporary.

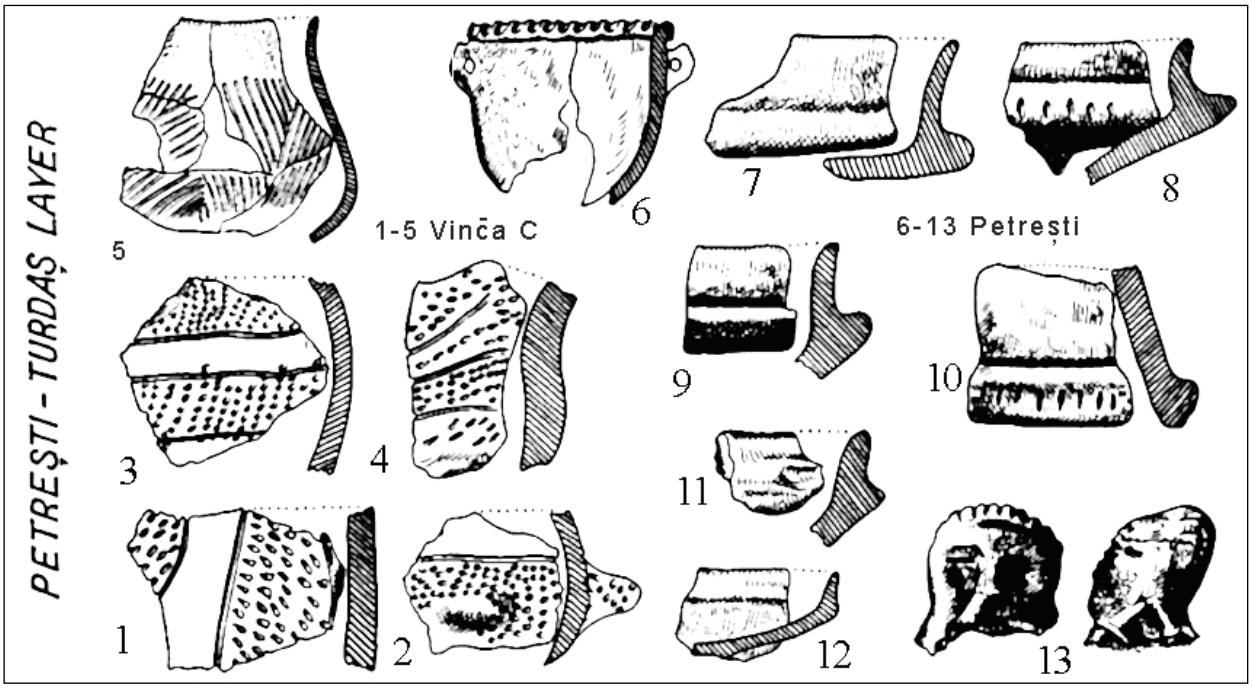

Fig. II.22. Petrești-Turdaș layer with pottery Vinča B2-C, Vinča C1 and Petrești.

Later, the so-called "Tisa", detached from the Szakálhát culture, became Szakálhát-Tisza, then Tisa.

All these opinions are now related with the history of the research. For Banat it has been demonstrated that the Tisa I horizon is post-Vinča C1 or B2–C[54]. It is possible that Vlassa was referring to

[51] Vlassa N. 1976, p. 29.
[52] Vlassa N. 1976, p. 38, fig. 4/6–9, we specify that the fragment 4/8 is Vinča B.
[53] For discussions, stratigraphy and chronological frame see: Lazarovici Gh. 2009, p. 192, fig. 16/1.
[54] Lazarovici Gh. 1979, p. 155–161 and bibliography; Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 596–601 and bibliography; Drașovean Fl. et al. 1996 and bibliography.

some fragments decorated with incised, irregular decoration (fig. II.20/14–16), which might be Vinča or Banat culture.

In the ***Turdaș – Petrești*** layer, N. Vlassa mentions imports related with several cultures, such as Bükk, or Boian (Giulești phase). A painted ceramic fragment was ascribed to ***Cucuteni A2*** because it was trichrome painted (fig. II/21.4). It is possible that this fragment already belongs to the lower part of the next layer, that is the third layer[55], which was labeled ***Tărtăria IIc*** in K. Horedt's profile. This Late Neolithic layer marks the transition to the early metal period[56]. Nevertheless, this painted fragment ascribed to ***Cucuteni A2*** is something different. It is a Zau culture fragment with white *engobe* and decoration. The white *engobe* bordered by brown or black lines in eyebrow is specific for middle phases of the Zau culture[57].

Such materials have been discovered even by N. Vlassa during the Cheile Turzii excavations (fig. II.22b)[58].

- Another stratigraphic conclusion was: *"Surely one can affirm that Petrești culture was born as a painted species of **Turdaș** ceramic and remains – until the end of its evolution only as a **painted ceramic category (fig. 21/1–3, 5)**, next to which evolve slowly the non decorated pot shapes and the decorative motifs genetically inherited from **Turdaș** culture"*[59]. Some painted fragments from the bottom of the layer with Petrești culture elements (fig. II.21/1–7, 9) belong in fact to the Zau culture. There is information from the site and from collections that such Zau materials have been differently named or perceived to be similar to Petrești.
- In 1959, when N. Vlassa made the inventory for the material excavated by K. Horedt, he made distinctions between Vinča and Turdaș (similar to the footnotes of the 1949 publication by K. Horedt). However, in the conclusions he accepts the system published by K. Horedt (we are referring to the same article from 1949, where in the text there is one idea, while the footnotes contain the correct ascription). Today, it is known that the evolution of the Turdaș culture is influenced by a wave of migration from the Romanian and Serbian Banat, followed by other later waves, such as those related with Vinča C1 time, Turdaș, and Vinča C1 according to W. Schier (ex B2C according to Gh. Lazarovici), and the Foeni group[60].

Layer III

- In the third layer ***Petrești – Turdaș,*** Petrești elements predominate. They are associated with many ***Turdaș elements.*** As such, **the** Petrești culture organically develops together with both Zau and Foeni[61].

In this layer, there are Petrești A and AB materials and only few Foeni materials. Therefore, we believe that this is not the earliest Petrești layer. In this layer, there are also late Turdaș materials (as in other excavated areas and for sure in K. Horedt's investigation).

- *"In the upper part of this layer* **[layer IIIb our note]** *appear many ceramic elements that might be related with the old phase of Baden culture"*[62]. Today such elements are defined as Coțofeni I[63].

Layer IV

- The *"last layer that has an average of 30 cm thick, is very important, while the analysis of the ceramic material shows the gradual disappearance of the last Turdaș elements and the birth of the oldest component of Coțofeni culture"*[64].
- At that time in the short chronology, the differences were minimal. Today between the latest discoveries of Turdaș culture (in the meaning of Late Neolithic not in those of K. Horedt, N. Vlassa, I. Paul)

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55 Vlassa N. 1976, p. 30.

56 Vlassa N. 1976, p. 30, n. 7, bring as arguments the flat bracelet from Cața found in a Petrești medium.

57 Lazarovici Gh. 2009b defines Zau culture, earlier known on different names such as CCTLN, CCTLNI, CCTLNZIS.

58 Lazarovici Gh. 2009, p. 192, fig. 16/1 and others from II phase.

59 Vlassa N. 1979, p. 29–30.

60 Our opinions: Lazarovici Gh. 1987; 1994; 1994a; Lazarovici Cornelia-Magda, Lazarovici Gh. 2007 about Vinča C see p. 15, 16, 17, 19, 31, 32, 34, 35, 36, 37, 38, 40, 41, 45, 55, 56; about Foeni group: p. 3, 7, 18, 19, 21, 22, 26, 28, 30, 46, 52; Fl. Drașovean and D. Ciobotaru opinions: Drașovean Fl. et al. 1998; 1999; 2000; 2001; Drașovean Fl., A. Fota 2003; Drașovean Fl., Rotea M. 1986; Ciobotaru D. 1999b; 2002; Muntean M. 1996; Drașovean Fl., Luca S. A. 1990; Luca S. A., *RepSibiu* 2003; Luca S. A. 2005; 2005a; 2008, p. 32; all s.v.: Mintia, Mintia-Foeni, Foeni; Foeni – Petrești; Gligor M. 2007; 2007b; 2009 and bibliography.

61 Vlassa N. 1976, p. 30.

62 Vlassa N. 1976, p. 30, n. 8 makes references to the analogies in Serbia at Dobanovci apud N. Tasić.

63 Upper footnotes 21–22.

64 Vlassa N. 1976, p. 30.

and the earliest ones related with Coțofeni, based on C14 data there is a difference of about 1000 years (4500 CAL BC compared to the earliest Coțofeni, 3500 CAL BC[65]).

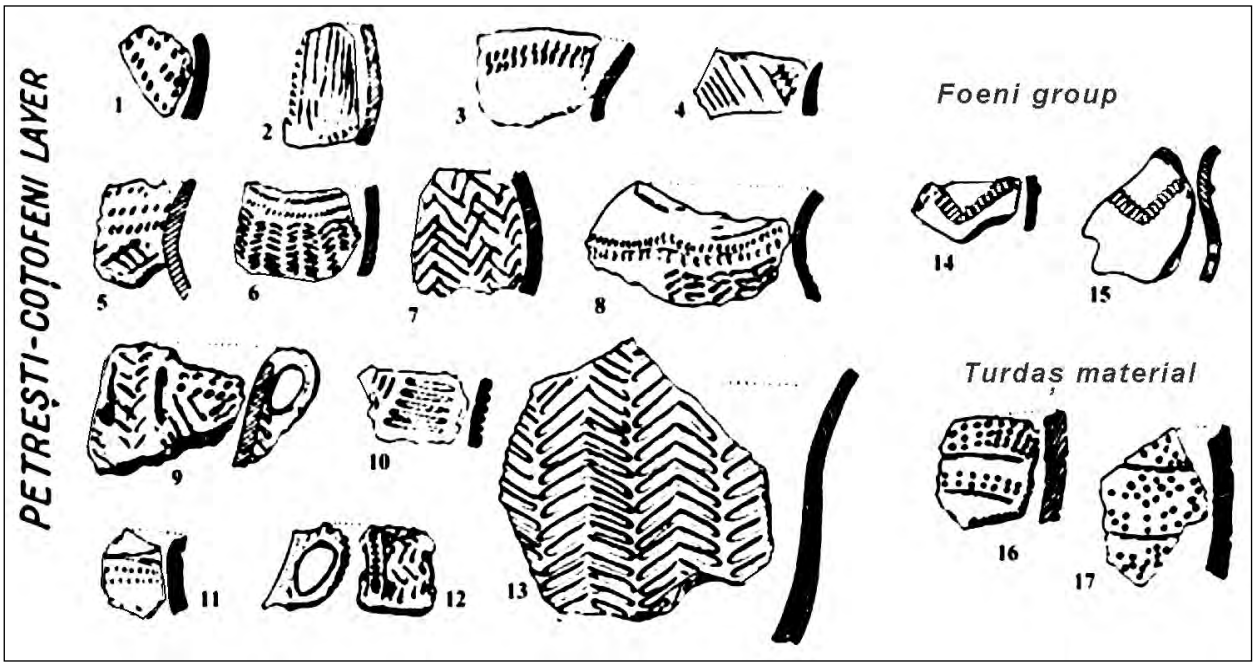


Fig. II.23. Pottery belonging to Coțofeni I, Foeni and Turdaș.

Further comments and material descriptions will be provided when discussing the architecture, ceramic evolution and ceramic imports.

Surface G

This is the main excavated area that has been prioritized by N. Vlassa because of the cult complex found here including the inscribed tablets (fig. II.19a)[66]. We will also focus on this excavation and develop a study presented at the Sibiu Symposium[67]. That study has been criticized by A. László, who participated as a student at Vlassa's excavations, because it did not include all of Vlassa's documents. In this paper, we will try to incorporate more data.

N. Vlassa's drawing of the profile contains squares numbered from left to the right; N. Vlassa drew seated in front of the profile (fig. II.24a). He drew the plan and made the squares seated in the margin of the excavation and facing north. As a result, the original denotations are with the head down (fig. II.24b).

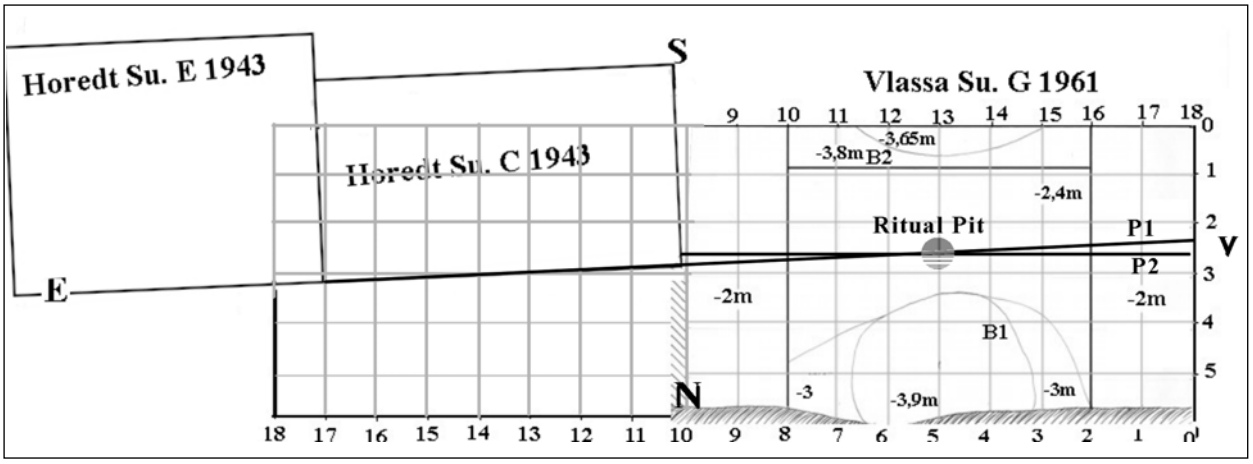


Fig. II.24: a) Plan and the squares system used by N. Vlassa.

[65] For C14 data see our opinions: Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 573 ff. ; 2007, p. 301 and bibliography; see also IPTICE http://arheologie.ulbsibiu.ro/

[66] Makkay J. 1990, comments on N. Vlassa's discoveries at p. 15–20.

[67] Observations made by A. László 2009, regarding Lazarovici Gh. 2008; in Sibiu we have published just a small study.

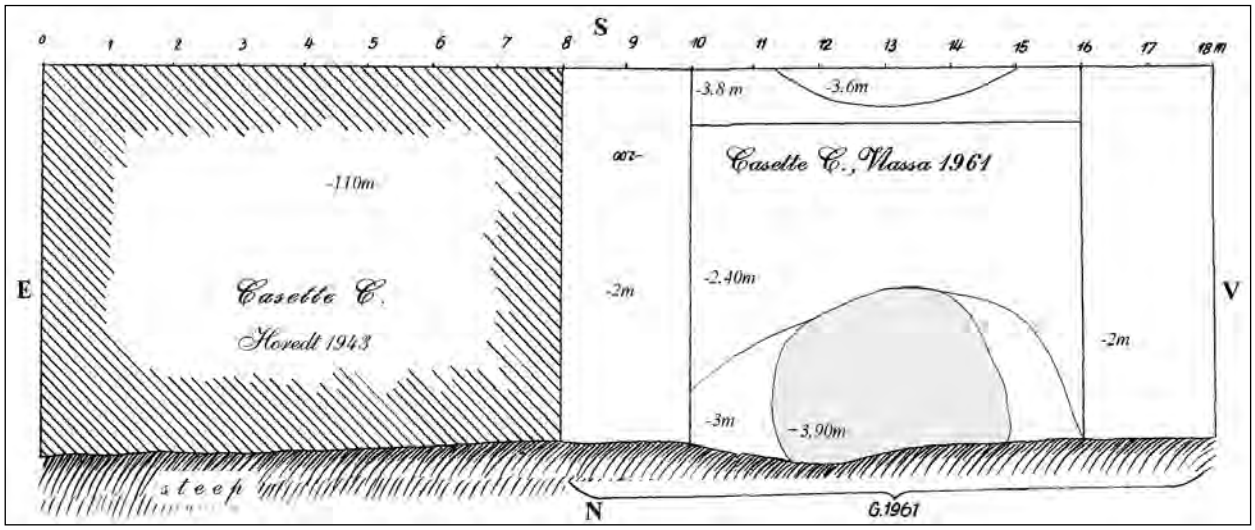


Fig. II.24: b) Unpublished plan of pit houses 1 and 2.

	0.00–0.20 m	0.20–0.40 m	0.40–0.60 m	1.00–1.20 m	1.20–1.40 m	3.00–3.20 m	3.20–3.40 m	No depth	Sum	Percent
	Coțofeni + Petrești		Petrești	Vinča B	Vinča A					
Sum	159	33	205	13	30	16	44	95	594	
Tărtăria withought depth								95	94	15.8
Tărtăria Su. G, h3	52								52	8.75
Tărtăria Su. A V 0.60 m			50						50	8.4
Tărtăria Su. A II 0.60 m			47						47	7.9
Tărtăria 0.20 m	44								44	7.4
Tărtăria Su. G, 3.20–3.40 m							44		44	7.4
Tărtăria Su. A III 0.60 m			39						39	6.5
Tărtăria Su. G; h3 A IV 0			37						37	6.2
Tărtăria Su. G, h1 0.20 m	36								36	6
Tărtăria Su. G, h2 0.40 m		32							32	5.34
Tărtăria Su. G; h3 0.60 m			31						31	5.2
Tărtăria Su. C 26?; h7					30				30	5
Tărtăria Su. A II 0.20 m	26								26	4.4
Tărtăria Su. A I 3–3.20 m						16			16	2.7
Tărtăria Se. H; h6 1.20 m				13					13	2.2
Tărtăria Su. A II 0.20 m	1								1	0.17
Tărtăria Su. G Al h3 0.4–0.60 m			1						1	0.17
Tărtăria Su. G; h2 0.40 m		1							1	0.17
Percent	26.8	5.5	34.5	2.2	5	2.7	7.4	16		100

Fig. II.25. Dynamism of the ceramic material (%) on stratigraphic units, depths and cultures.

It is possible that some materials from pit-house B2 have been involuntarily mixed with the materials resulted from scraping. N. Vlassa did not mark on the profile the location of the ritual pit. Therefore, we made some suppositions regarding the profile. N. Vlassa found the pit-house poached by people interested in archaeological objects (this situation is not uncommon even today). He scraped the profile and

emptied the pit house. He collected the materials and put them together (where we have collected a bone for analysis).

After he reached –1.10 m depth, he abandoned the area investigated by K. Horedt. This is noticeable on the profile, which is drawn only until 1–1.10 m (fig. II.24b). The profile of the ritual pit had to be between squares 2 and 3 (fig. II.24a), as suggested by the reconstruction of the photos' angle with the ritual pit and the profile, too.

	UC	SF	F	Sum	Percent
Sum	250	170	171	591	
Tărtăria Su. G., h3	19	20	13	52	8.8
Tărtăria Su. A V, 0.60 m	20	14	16	50	8.46
Tărtăria without depth, box 1	12	17	19	48	8.12
Tărtăria Su. A II, 0.60 m	21	8	18	47	7.9
Tărtăria without depth, box 2	22	14	10	46	7.78
Tărtăria, 0.20 m	19	16	9	44	7.44
Tărtăria Su. G, 3.20–3.40 m	23	7	13	43	7.27
Tărtăria A III, 0.60 m	16	12	9	37	6.26
Tărtăria Su. G, h3, A IV, 0.60 m	17	8	12	37	6.26
Tărtăria Su. G, h1, 0.20 m	10	10	16	36	6.09
Tărtăria Su. G, h2 ,0.40 m	14	9	9	32	5.41
Tărtăria Su. G, h3, 0.60 m	12	9	10	31	5.24
Tărtăria Su. C 26?; h7 box 1	13	7	10	30	5.07
Tărtăria Su. A II, 0.20 m	16	8	2	26	4.4
Tărtăria Su. A I, 3–3.20 m	10	4	2	16	2.7
Tărtăria Su. H, h6, 1.20 m	5	5	3	13	2.2
Tărtăria Su. A II, 0.20 m	1			1	0.17
Tărtăria Su. G, Al h3, 04–0.60 m		1		1	0.17
Tărtăria Su. G, h2, 0.40 m		1		1	0.169
Percent	42.3	28.7	28.9		100

Fig. II.26. Ceramic category.

Our opinions regarding the stratigraphy are presented in fig. II.19a. They are already published, but we customarily find new details in the inventories and materials. It has to be mentioned that we have not identified all the objects resulting from N. Vlassa's excavations. When we became interested in this issue, the MNIT had a new director who decided to reorganize all the archaeological materials. The director decided to reorder and rapidly move all the materials to different places based on random criteria (a room for stone objects, one with bones, a transitory room etc.), not respecting the archaeological context[68]. Therefore, the entire lot of studied material consists of only 600 fragments, selected in the field.

Statistic analyses were made only on Vinča and Turdaș materials. In the case of undecorated fragments, it was not possible to make separations between cultures. Based on the Turdaș site materials N. Vlassa demonstrated to some colleagues, specialized in different periods, that it is not possible to make differences based on the ceramic structure even between Coțofeni, Petrești, or late Vinča culture. We have separated the Vinča materials based on typology but this classification is not very precise for the mentioned reasons.

The table in fig. II.26 shows that most of the material comes from –0.60 m depth, from the Petrești level, although this level contains also a mixture with Turdaș material. The Petrești culture dominates with over 50% of the ceramics.

Analyzing the ceramic categories that best characterize the specifics of the habitation or civilization and the pragmatism of the population, fig. II.26 shows that overall at Tărtăria the most common

[68] Materials have been removed from original boxes in other without checking if they had tickets or without transferring the description from old boxes to the new ones. Some information's concerning the depths at Tărtăria made by N. Vlassa and K. Horedt is lost (both very scrupulous, as proven by the inventory made by N. Vlassa in 1959 and our comments). However some materials are in a transitory room, and they will be inventoried in the future. In our database, we have introduced the material that had tickets and made several photos of their notes.

ceramic prevails (over 40%). The proportions of the other two categories represent together almost 60%, so we can define the site as a main one. At –0.20 m, the undecorated pottery of Coțofeni I, Turdaș, and maybe Petrești, are in involution, suggesting that this sort of pottery cannot be culturally ascribed.

The same mixture of materials, as in the case of K. Horedt's excavations, was observed when analyzing the pottery. This mixture was determined by different settlings of the strata and by later pits that can be observed when they cut the cultural layer. The number of pits un-intercepted in the profile remains unclear (for instance I. Paul's profile has more details and he has intercepted several pits, but he has selected the materials and the "nonspecific" ones have been buried again in sections)[69]. A different analysis will be presented when discussing the evolution of the pottery.

Section H

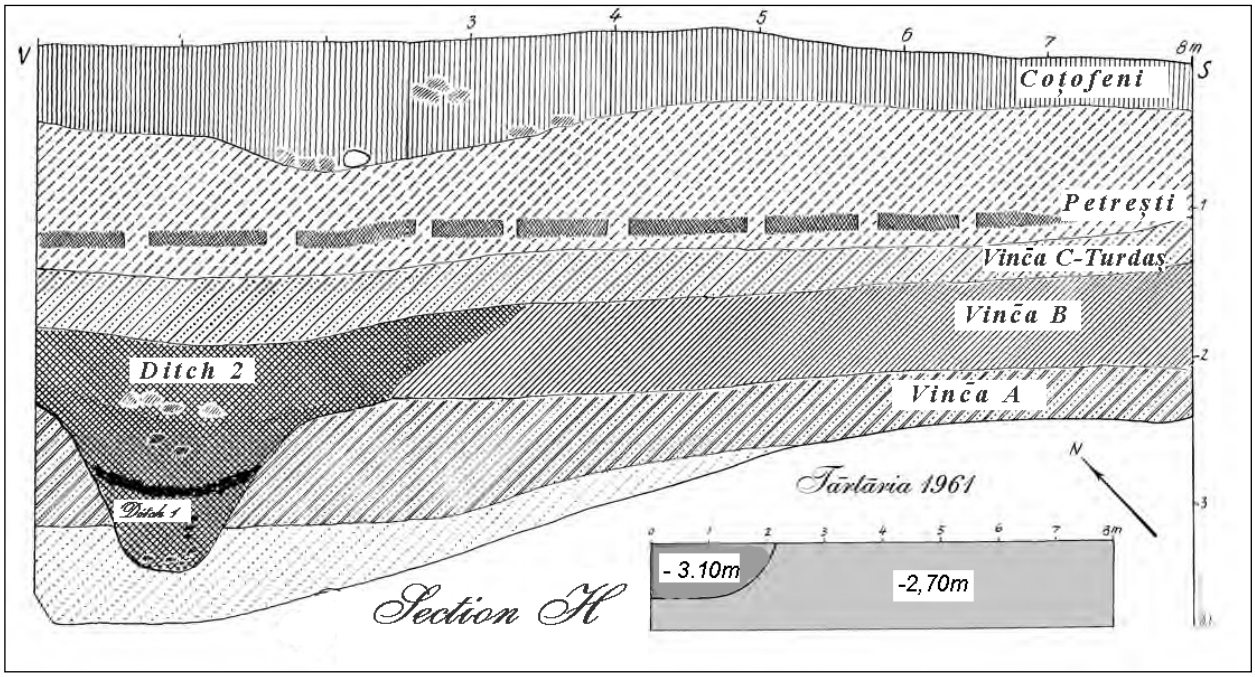
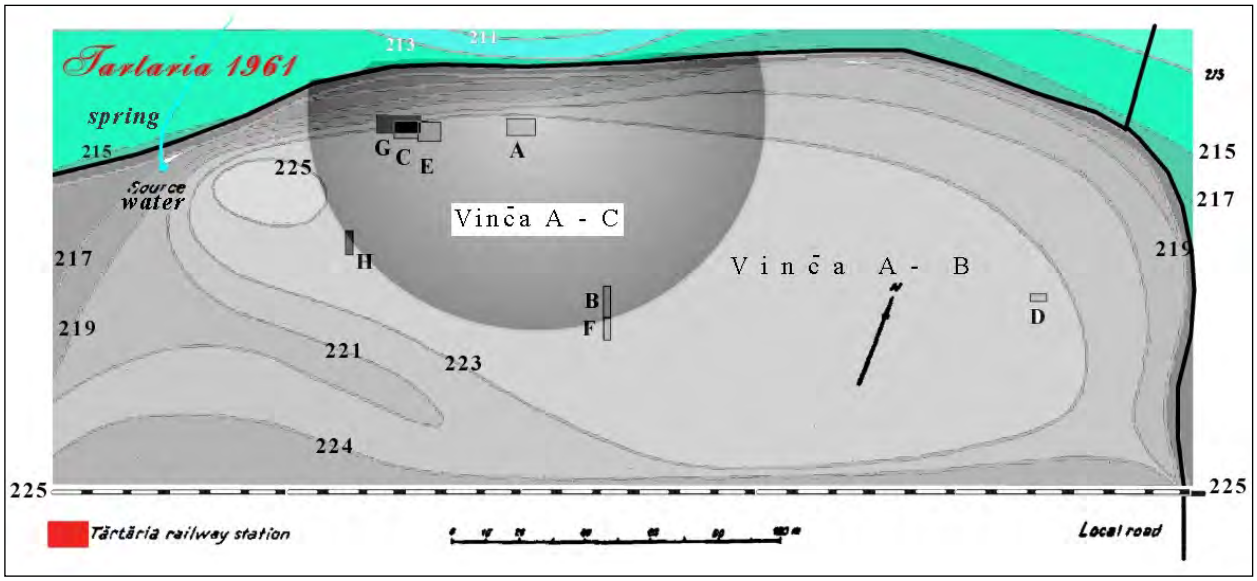


Fig. II.27: a) The Western profile Section H, ditsch 1 and ditch 2; b) ▼area of the ditch 2.



This section (8 × 1.5 m) was located in an area close to the main part of the site, close to its highest point. It is possible that the habitation was concentrated here, also because the water source was on this side of the site. This section is very important for two reasons: firstly, for stratigraphy, and

[69] S. A. Luca in the new excavations at the site has discovered between the buried materials of I. Paul, painted pottery, idols fragments, and typically material a.s.o.

secondly, for a pit that after its characteristics represents the bottom of a ditch, partially intercepted in the excavations. When it was built, the ditch was 1.3–1.5 m deep and about 3 m wide at the mouth. The ditch has had two functional phases and a remake during level Vinča C – Turdaș. During this level, the ditch has the second big filling and its dimensions change: it became 1.7 m deep and 5 m large at the mouth. The ditch was intercepted a little bit diagonally. Because the profile is not symmetric, the width seems larger.

Several years ago, we believed that the Vinča A habitation was delimitated by the ditch intercepted in section H (fig. II.27). After studying all the material and the stratigraphy of the ditch we believe it is later, since Vinča A materials are spread even in section D excavated by K. Horedt (fig. II.27b).

According to the stratigraphy of the filling, the ditch was dug during the Vinča B1 phase, remade during the Vinča C – Turdaș level; the Petrești habitation and the big complex covered the ditch.

The big complex mentioned above intrigued N. Vlassa. Several times, he confessed that because of the big adobe platform, apparently with holes, he thought it was either a very big fireplace or a sanctuary. In our opinion, it represents a very large house from the Petrești layer, with suspended floor. The distance between the big adobe fragments marks the place of very wide girders (maybe double, their width was 50–70 cm).

C. *Iuliu Paul's excavations*

Iuliu Paul's excavations in 1989 at Tărtăria have resulted in only one report included in a larger paper, presented at Timișoara and publicly distributed as "***Sunt tăbliţele de la Tărtăria o 'enigmă'?***"[70].

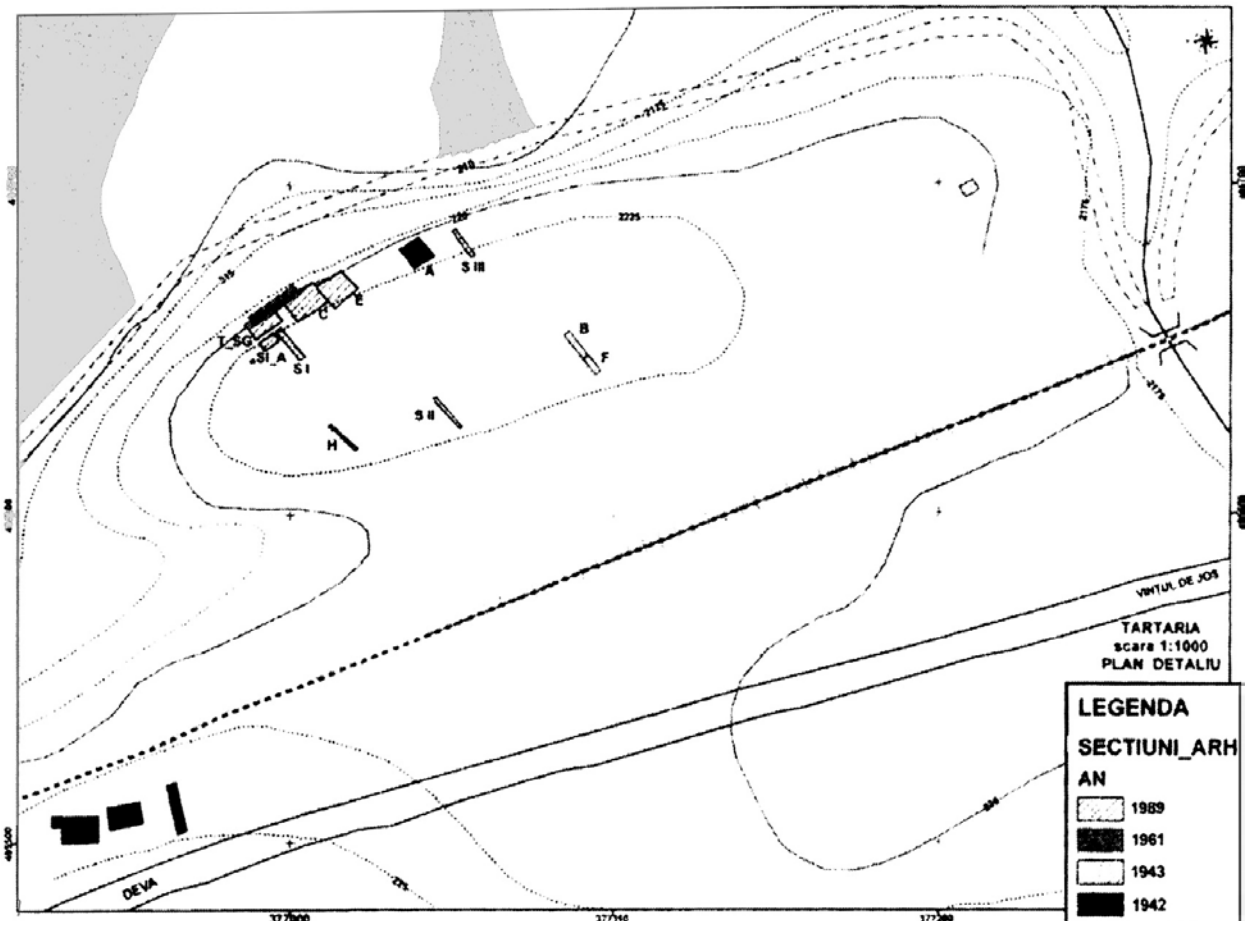


Fig. II.28. Plan of Tărtăria excavations on years (legend), after I. Paul 2007.

We have critically analyzed this paper which contains, in our opinion, unfounded accusations to N. Vlassa, and exaggerated the importance of I. Paul's excavations and his own observations[71]. Although publicly presented, the only report about the Tărtăria excavations is of limited importance.

[70] Public presentation of Iuliu Paul sustained when he received the distinction *Doctor Honoris Causa* at West University Timișoara, 23 May 2007.

[71] Our presentation was made in 2008 during an International Symposium in Sibiu.

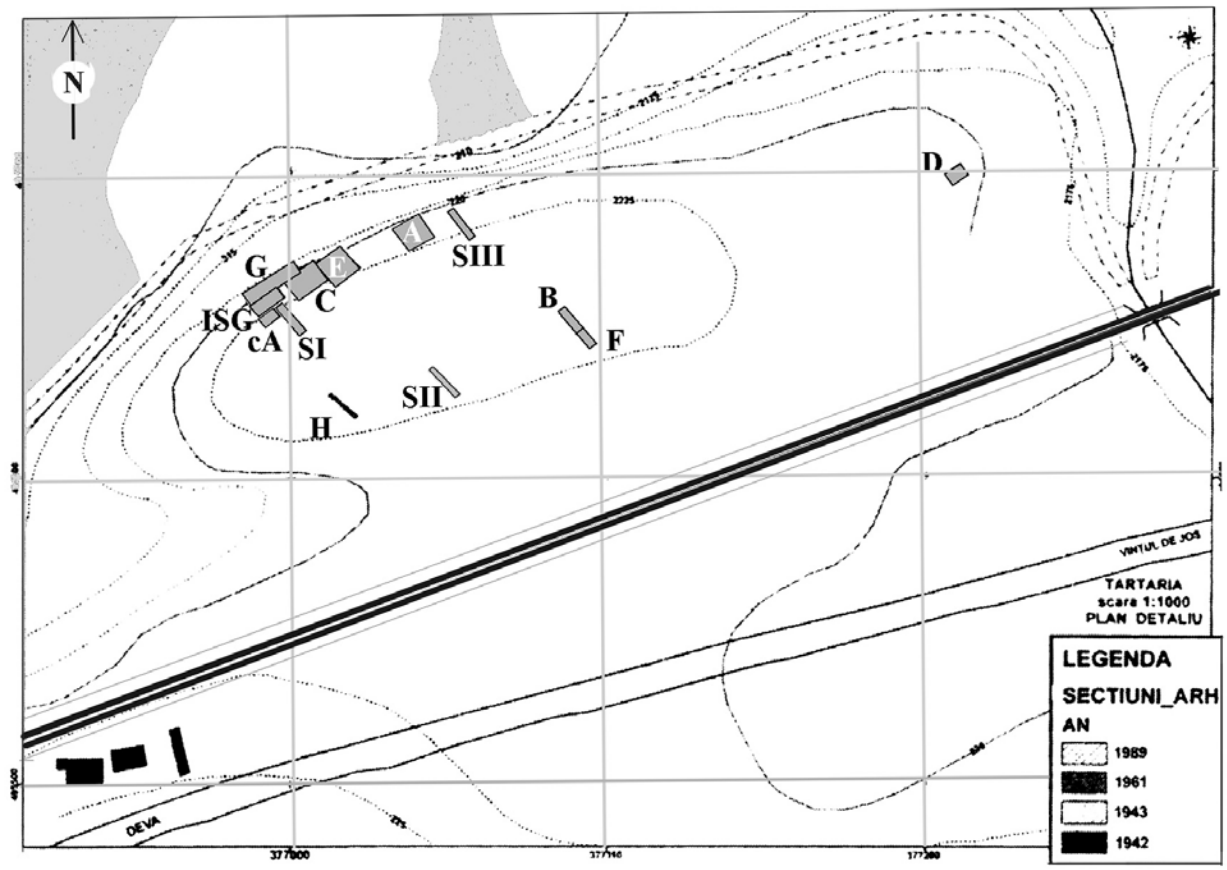
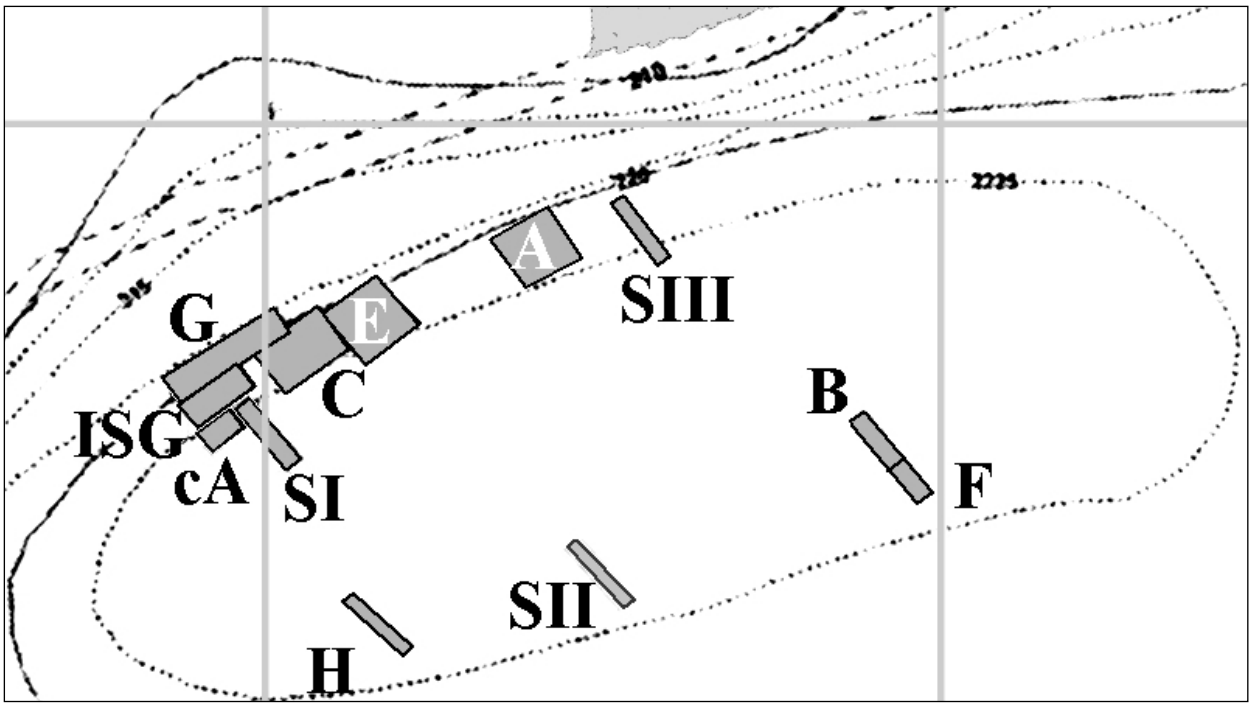


Fig. II.29. a) Topographic elevation made by Iuliu Paul▲; b) detail with main area▼.



Topographic elevation made by Iuliu Paul.

The study by Iuliu Paul consists of two parts. The first one maintains the idea of *enigma* (mystery) over the Tărtăria discoveries (the first 15 pages); the second part contains his opinions regarding the spiritual life. The two parts are separated but coupled by the *enigma* title. The first part, possibly part of a larger study or report about Tărtăria (the manuscript starts with page 20 and the illustration we will refer to here was numbered by him as pl. I–XIX). The second part includes ideas and an older or newer hypothesis about the spiritual life of the Neolithic time.

We have critically analysed elsewhere Paul's study. In this chapter, we will only focus on the positive aspects of his study. Bearing in mind that the first part of the study was written twenty years ago, we will present our own opinions, as well as new developments in the field, and the results of other investigations made during this period.

In 1989 Iuliu Paul excavated a surface I_SG (10 × 5 m = **50 m²**) on top of surface G made by N. Vlassa; then a transversal section SI (10 × 1,5 = **30 m²**); a cassette cI_A (of maybe 5 × 2 = **10 m²**); section SII (10 × 1/1.5 m = **10/15 m²**); section S III (8 × 1 m = **8 m²**). In total, the excavated area had about **100–115 m²**. The purpose and even the names of the cassettes were to verify the forerunners' stratigraphy, to see if the complexes had annexes that could clarify the stratigraphic context of the tablets and bring new information and materials.

Although a team that had knowledge about the statistic analysis of materials and about surface excavations (Florin Drașovean and Sabin Adrian Luca) participated in these excavations, the research did not aim at a long-term excavation and investigation. The aim of Iuliu Paul concerning Tărtăria was only to be appointed chief archaeologist for the site and to stop any new modern investigation here.

Iuliu Paul made a new topographic elevation. On it, a promontory can be observed that appeared in K. Horedt and N. Vlassa's plans. It is 225 m high. The promontory is missing from the western part of the site. It may have been flattened out by agricultural work or it may be a measuring error. I. Paul located his excavations and those made by N. Vlassa and K. Horedt on the new topographic plan.

Fig. II.30. Location of different sections.

Paul's excavation was short (not very well prepared, as the author of the excavations recognized himself), however, the sections were meticulously made; the complexes had been prepared, but unfortunately, materials were selected on the field, as in the previous excavations (1943 or 1961). Most of the "atypical" materials were lying about for a long time on the border of the excavation, arranged on squares and depths; the animal bones were at the beginning of the rows arranged on the excavation's depths. By accident, I visited the excavation together with Eszter Bánffy and both of us made photos with the excavations and the archaeological material.

During autumn 1989, we visited the area again after the excavations were filled in but the traces of I. Paul's excavations were still visible. I. Paul made a new stratigraphic profile after he cleaned the section and profile made by N. Vlassa. This profile includes many details (fig. II.31), with pits and levels that can be observed in the drawing profile. However, they are missing from the description of materials in his report.

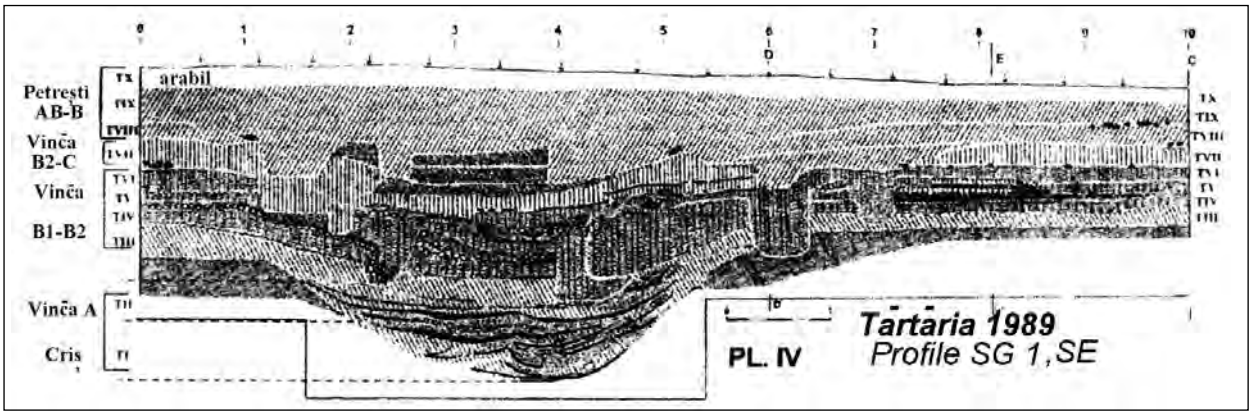


Fig. II.31. Profile (gradient SG1) in the area of N. Vlassa's Surface G, after I. Paul 2007.

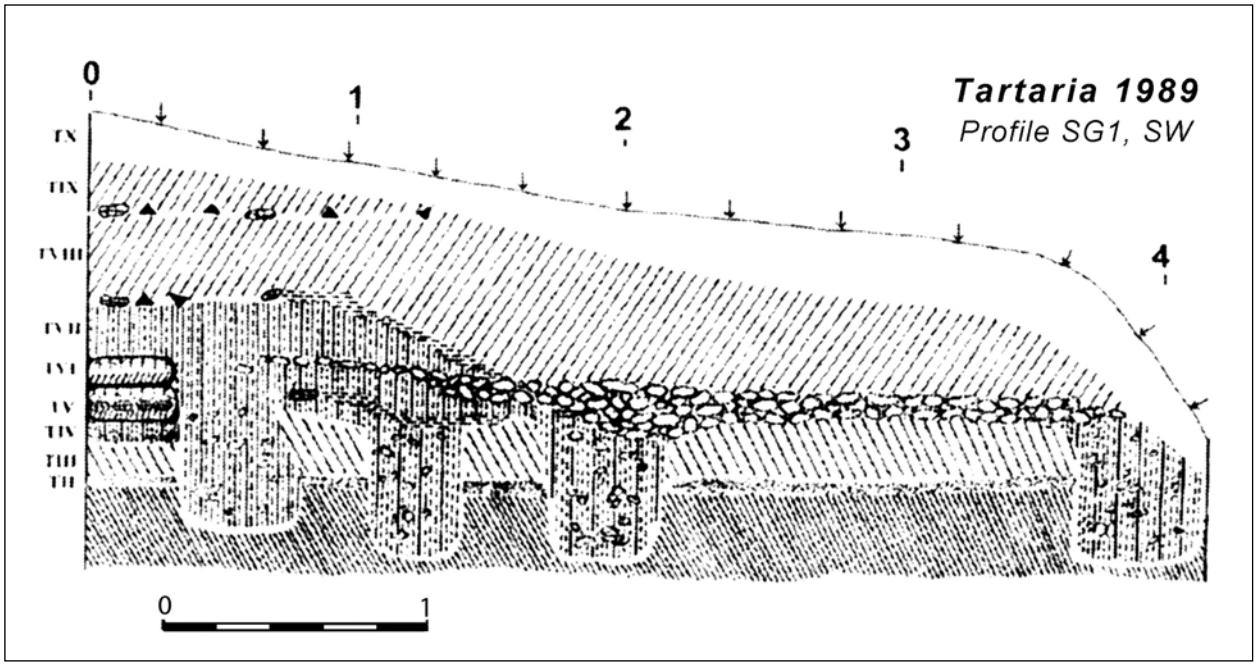


Fig. II.32. I. Paul's profile with houses postholes.

We have underlined some mentions in the profile made by I. Paul. To be more evident, we have enlarged the vertical dimension so that the layers will be more striking. We can observe several big postholes that disturbed the cultural layers, more evident than in the profiles of K. Horedt and N. Vlassa. But taking into account that this was just a process of chamfering, we can explain only the material mixtures not their continuity in time. The pits can not be used because we do not know their materials, or at least the levels they are starting from. We can observe pits from Petrești AB levels until the Vinča ones, with a similar situation for other layers.

Sloping and the reading of the profile are excellent, but the "correctly excavated" materials and their data are missing.

Therefore we cannot insist over other descriptions. Maybe they are in the missing 19 pages, maybe sometime a colleague will work on them; therefore we will not continue on the categories. Some things are still very well established: on the gradient TVIII ascribed to Vinča B2–C phase, the level where Turdaș materials appear is written on the profile. Other two notes are not correct: Vinča A level is lower but its cultural layer is higher; "Criș" level is a sporadic one and appears upper in the higher part of the yellow clay, but in the profile it is indicated about 1 m down, on the level where there are bottoms of pit houses.

The second profile (fig. II.32) contains very interesting observations regarding the architecture and especially the postholes and the debris strata of the habitation complexes. The other profiles have not been published therefore we stop our comments here. Using the same system for hachure for both profiles, the chronological frames become more evident.

Annexes

Annex 1

	1942 Cass A	1943 Derubau E.	1943 Cass B	1943 Cass B Cabana	1943 Cass C	1943 Cass E	1943 Derubau W CFR	1943 Derubau E	1943 Section D	1943 Section F	1943 Bridge W	Sum	Percent
		5					21	17			65	111	5.91
0–0.20 m					56	4			4			64	3.40
0–0.25 m	129											129	6.87
0–0.35 m			11									11	0.58
0–0.65 m										7		7	0.37
0.20–0.30 m									5			5	0.26
0.20–0.40 m					**66**							66	3.51
0.20–0.50 m						84						84	4.47
0.25–0.45 m	347											347	**18.47**
0.35–0.45 m			57									57	3.03
0.40–0.60 m					32							32	1.70
0.45–0.65 m	238											238	**12.67**
0.50–0.70 m						70						70	3.72
0.50–0.80 m									3			3	0.16
0.60–0.80 m					26							26	1.38
0.65–0.85m										10		10	0.53
0.65–0.90 m	101											101	5.37
0.70–0.90 m						25						25	1.33
0.75–0.85 m			18									18	0.96
0.80–1 m					26							26	1.38
0.85–1 m			15									15	0.8
0.90–1.15 m	113					17						130	6.92
1–1.20 m			15									15	0.78
1–1.25 m					14							14	0.74
1.10–1.30 m										7		7	0.37
1.15–1.40 m	46					12						58	3.08
1.20–1.40 m			14									14	0.74
1.25–1.45 m					20							20	1.06
1.40–1.65 m	66											66	3.51
1.40–1.70 m			16									16	0.85
1.45–1.60 m					11							11	0.58
1.60–1.80 m						8						8	0.42
1.60–1.95 m					6							6	0.32
1.70–2 m			10									10	0.53
2–2.20 m			10									10	0.53
2.20–2.40 m			23									23	1.22
2.40–2.70 m				5								5	0.26
2.70–2.90 m				5								6	0.32
2.90–3.90 m			7									7	0.37
Those under 5 fragments on line or column we have eliminated from the table													
Sum	**1046**	5	**196**	10	257	220	21	17	12	24	65	1878	
Percent	**55.67**	0.26	**10.43**	0.53	13.68	11.71	1.12	0.9	0.64	1.22	3.46		100

Table 1A. *Distribution of archaeological material on different archaeological units (K. Horedt 1942, 1943).*

Annex 2 – Table 2A.

	1942 Cass A	1943 Cass C	1943 Cass E	1943 Cass B	1943 Derubau E	1943 South CFR	1943 Cass B Cabana	1943 Derubau W	1943 Derubau E	1943 Section D	1943 Section F	1943 Bridge W	Sum	Percent
Sum	1046	257	220	196	5	2	10	21	17	12	23	65	1878	
0.25–0.45 m	347												347	18.48
0.45–0.65 m	238												238	12. 7
0–0.25 m	129												129	6.87
0.90–1.15 m	113												113	6.01
0.65–0.90 m	101												101	5.38
0.20–0.50 m; Baden, Kostolac, Vinča, Petrești			74										74	3.94
0.50–0.70 m; Vinča, Petrești			70										70	3.72
0.20–0.40 m; Baden, Kostolak, Petrești, Vinča		66											66	3.51
1.40–1.65 m	66												66	3.51
Basarabi												63	63	3.35
0.35–0.45 m				56									56	2.982
1.15–1.40 m	46												46	2.449
0–0.20 m; Baden, Kostolak, Petrești, Vinča		45											45	2.39
0.40–0.60 m; Kostolac, Petrești, Vinča		30											30	1.56
0.60–0.80 m; Petrești, Vinča		26											26	1.38
0.80–1m; Petrești, Vinča		26											26	1.38
0.70–0.90 m; Vinča, Petrești			25										25	1.33
2.20–2.40 m				23									23	1.22
Coțofeni					2	1			17				20	1.06
1.25–1.45 m; Petrești, Vinča		19											19	1.01
0.75–0.85 m				18									18	0.95
0.90–1.15 m; Vinča, Petrești			17										17	0.9
1.40–1.70 m				16									16	0.85
0.85–1m				15									15	0.8
1–1.20 m				15									15	0.8
1–1.25 m; Petrești, Vinča		14											14	0.74

	1942 Cass A	1943 Cass C	1943 Cass E	1943 Cass B	1943 Derubau E	1943 South CFR	1943 Cass B Cabana	1943 Derubau W	1943 Derubau E	1943 Section D	1943 Section F	1943 Bridge W	Sum	Percent
1.20–1.40 m				14									14	0.74
1.15–1.40 m; Vinča, Baden			12										12	0.64
0–0.35				11									11	0.58
1.45–1.60 m; Vinča		11											11	0.58
0.20–0.50 m; Baden, Kostolac, Vinča			10										10	0.532
0.65–0.85 m; Petrești											10		10	0.53
1.70–2 m				10									10	0.53
2–2.20				10									10	0.53
1.60–1.80 m; Vinča, Petrești			8										8	0.42
0–0.65 m											7		7	0.37
2.90–3.90 m				7									7	0.37
1.10–1.30 m											6		6	0.32
1.60–1.95 m; Vinča		6											6	0.32
2.70–2.90							5						6	0.32
Hallstatt + Neolithic								4					5	0.26
0.20–0.30 m										5			5	0.26
2.40–2.70 m							5						5	0.26
0–0.20 m										4			4	0.21
0–0.20 m; Baden, Kostolac, Vinča			4										4	0.21
Early Medieval					3								3	0.16
0–0.20 m; Baden, Kostolac		3											3	0.16
0–0.20 m; Baden, Kostolac		3											3	0.16
0–0.20 m;		3											3	0.16
0.50–0.80 m										3			3	0.16
2.00–2.30 m	3												3	0.16
Surface	3												3	0.16
0–0.20 m; Petrești, Buenos Aires		2											2	0.10
0.40–0.60 m; Petrești, Vinča		2											2	0.106
Those with only one fragment have been eliminated.														
Percent	55.7	13.7	11.7	10.4	0.3	0.1	0.5	1.1	0.9	0.6	1.2	3.4		100

Fig. II.33. The terrace with prehistoric habitation at Tărtăria.

CHAPTER III
ARCHITECTURE OF THE SETTLEMENT

GHEORGHE LAZAROVICI, CORNELIA-MAGDA LAZAROVICI

THE SITE

Tărtăria – *Gropa Luncii* site, with its oval shape, has a surface of 280 by 110 m, in total about 3 ha. As can be see in fig. III.1b the site is much closed to the older stream bed of Mureș River (see Chapter I). Based on the stratigraphic observations from sections H and D, the Vinča A habitation covers this surface.

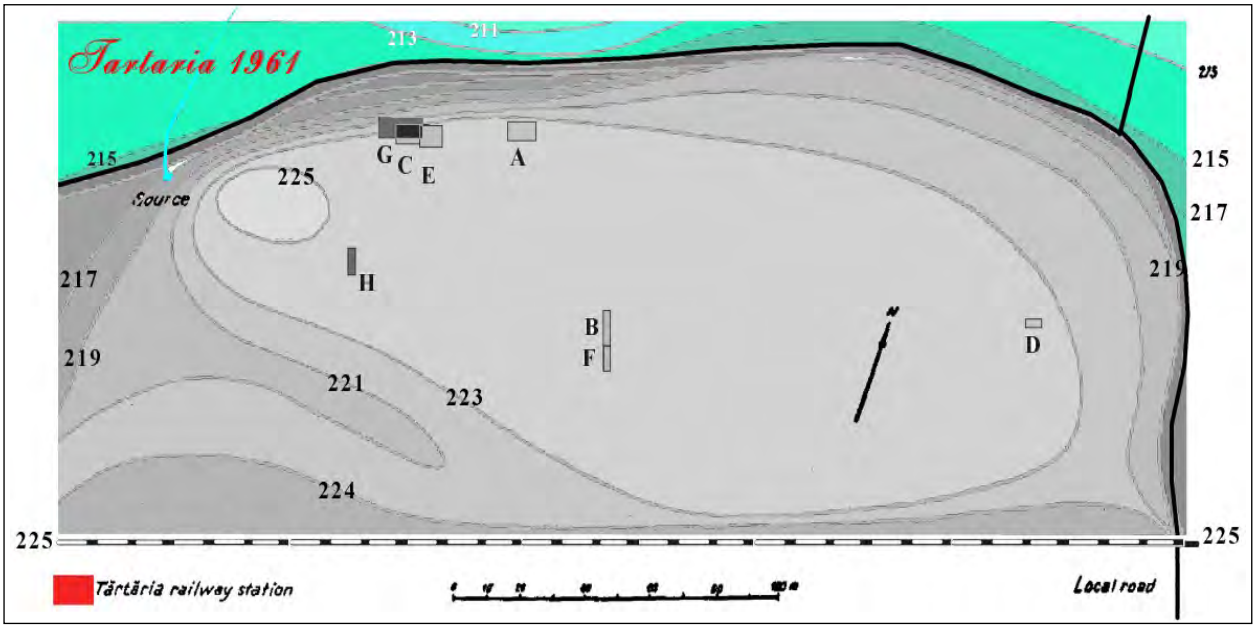


Fig. III.1. a) Tărtăria: the stream route and the mouth of Pianul de Sus Valley; b) detail in blue indicating the old stream bed, Groapa Luncii site (V) and Coțofeni habitation (C).

We hope that future soundings and magnetic prospecting will provide more information regarding the fortification systems. In several sites, the use of these types of investigations has led to the discovery of interesting fortification systems. In some cases, these systems have been proclaimed "passageways"[72].

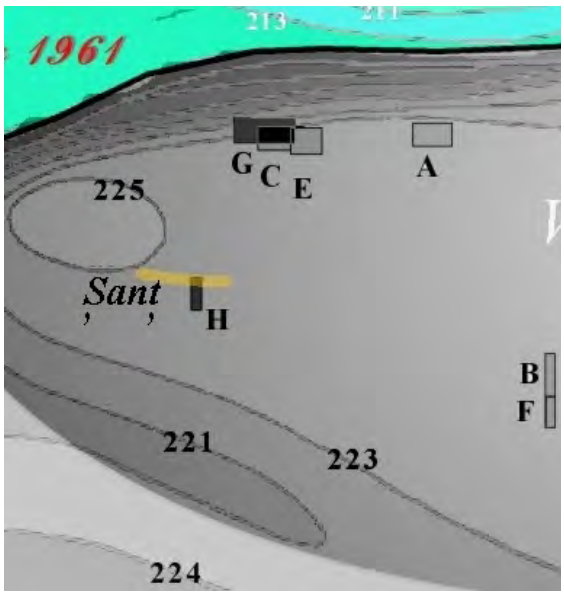


Fig. III.2. Plan of the western area with the defensive ditch (Șanț).

The pit in Section H is on the border of the level curve and might represent a defensive ditch during Vinča B phase – Turdaș culture[73]. Such defensive ditches, although rather small, are associated with the arrival of Vinča A communities at Gornea[74], in this area and in Starčevo-Criș contemporary horizons at Schela Cladovei[75], Ostrovu Golu (SC IIIB)[76], Cârcea (Polychromy)[77] and Miercurea Sibiului (ditches and palisades SC – Vinča A)[78].

Recent magnetic prospecting made by German colleagues (H. Becker[79] and C. Mischka[80]) and Romanian ones (D. Micle for our excavations in the tell-type site at Parța, for Zau, Țaga and Iclod sites) impose a revision of opinions concerning the formation of deposits in Neolithic sites. Areas with thicker deposits have for sure multiple fortification systems that determine a vertical evolution of the site.

The stratigraphy of the old stages at Turdaș is similar with that at Tărtăria: Vinča B2-C, Petrești AB, and Coțofeni.

From the magnetic prospecting made by Carsten Mischka, we can see a ditch with a similar oval trajectory and several inner palisades as the ones at Uivar and Iclod. In the future, we expect that similar structures will be discovered at Tărtăria, too. At Țaga and Zau,[81] there are inner palisades but without ditches nearby.

Pit houses

All archaeological reports mention that habitation began with pit houses. This is common for other sites, too. For example, in many sites of the Starčevo-Criș culture and Vinča A, at Gornea[82], Balta Sărată[83], Moldova Veche[84], Ostrovu Golu[85] or Miercurea Sibiului[86]; habitation started in both named civilizations with pit houses. Moreover, this type of habitation was also used on a large scale in Europe[87]. Kurt Horedt has argued: *"it seems that the cabane* [pit houses] *layer in this excavation denies Paret's opinion that pits have been used only for clay extraction as a crude material, not to be used as houses"i*[88]. This note from 1949 is very interesting because even today many German scholars negate the use of pit houses for habitation purposes (we have noted the pit houses as: B3, B4).

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72 At Ceamurlia de Jos (Hamangia culture) a palisade was considered as a "passageway" that separates two phases of the site: Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, 450–451, pl. IIIg. 2, 4, 11 *apud* Berciu D. 1966; Hașotti P. 1997, p. 27, fig. 15.

73 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 191, fig. IIIa.74; at some point we were convinced that the Vinča A habitation was smaller than that of phase B.

74 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 193.

75 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p.114; Davidescu M. 1966, 547; Boroneanț V. 1990, p. 146, fig. 2.

76 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 104, fig. II.54, II.55–56.

77 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, fig. II.66a; Cârcea – Viaduct, Nica M. 1977, p. 30, fig. 14; Lazarovici Gh. 1990b, 94, fig. 1.2.

78 Luca S. A. et al. 2004; 2004a; 2005; 2008; 2008a; 2010; Luca S. A., Georgescu A. 1998; Luca S. A., Suciu C. 2005.

79 Becker H. 2002; 2004.

80 Mischka C. 2008; 2010 presentation on the occasion of the Archaeometry symposium, București.

81 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 434, fig. IIIe.31; Țaga, p. 655–662.

82 Lazarovici Gh. 1977, p. 51–52.

83 Lazarovici Gh. et al. 2003; 2004; Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 143 ff.

84 Lazarovici Gh. 1979, p. 27.

85 Comșa E. 1966, p. 360; Roman P., Boroneanț V. 1974; Lazarovici Gh. 1979; Lichter Cl. 1993, kat. 76, p. 129.

86 Luca S. A., Georgescu A. 1998; Luca S. A. et al. 2004; 2004a; 2005; 2008; 2008a; 2010; Luca S. A., Suciu C. 2005.

87 Petrescu-Dîmbovița M. 1957, 68, 88; Lazarovici Gh. 1972, p. 22; Roman P., Boroneanț 1974, p. 120; Dimitrijević S. 1979, p. 68; Nica M. 1979, p. 32; 1980, fig. 33; 1981, p. 28; 1984.

88 Horedt K. 1949, 54–55, footnote 11 *cited O. Paret, Germania, 24, 1942, p. 48 ff.*

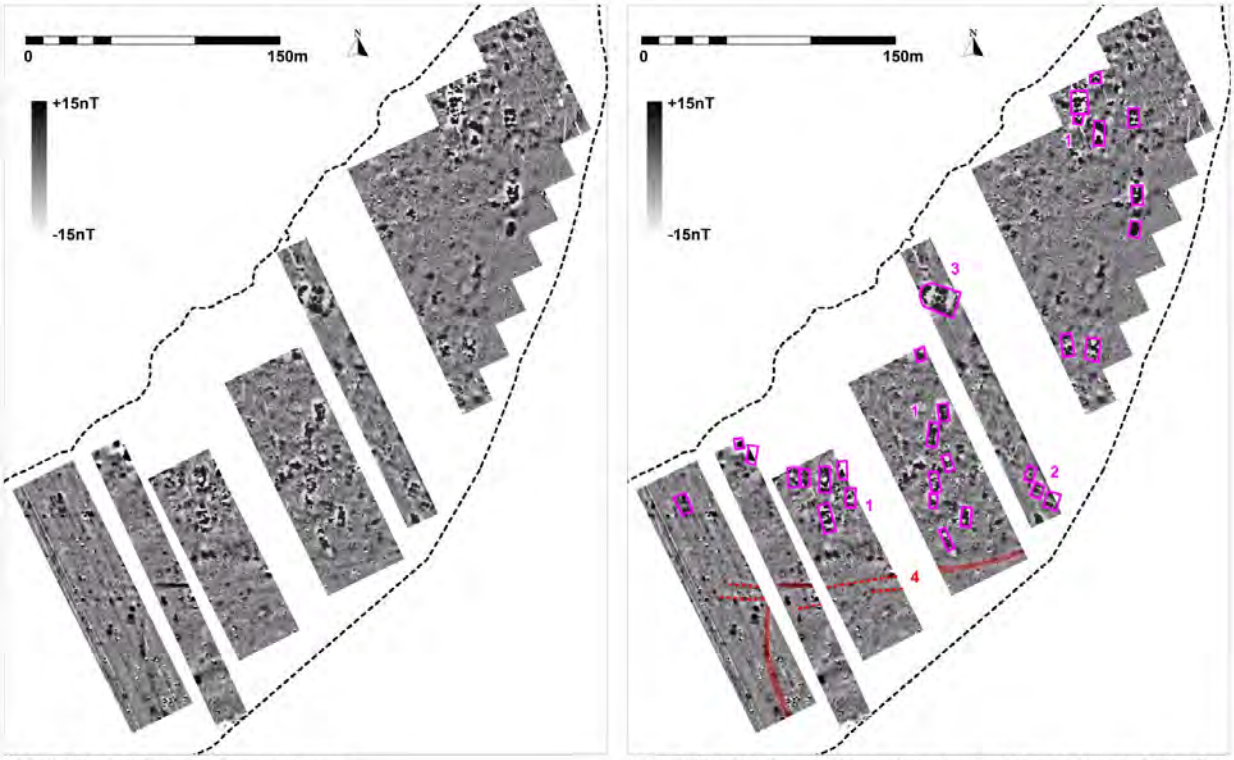


Abb. 5: Turdas "Lunca". Magnetogramm.

Abb. 6: Turdas "Lunca". Magnetogramm mit Umzeichnung der im Text erwähnten Befunde.

Fig. III.3a–b. Magnetic prospecting made by Carsten Mischka at Turdaș with traces of ditches and inner palisades, after C. Mischka 2008.

K. Horedt has made interesting observations (which we have omitted when written about Neolithic architecture) regarding the soil taken out of *cabane*. This soil was amassed near the deeper parts of the pit and therefore not used. He has made several suppositions regarding the filling/contains of the pit house, which have been confirmed by some of our ethno-archaeological studies and by more recent shepherds' dwellings, such as the one from Bucovăț, which we use as a reconstruction model. In many cases, the traces of the main pillar of the pit house that supports the roof are missing, or no pillar was used.

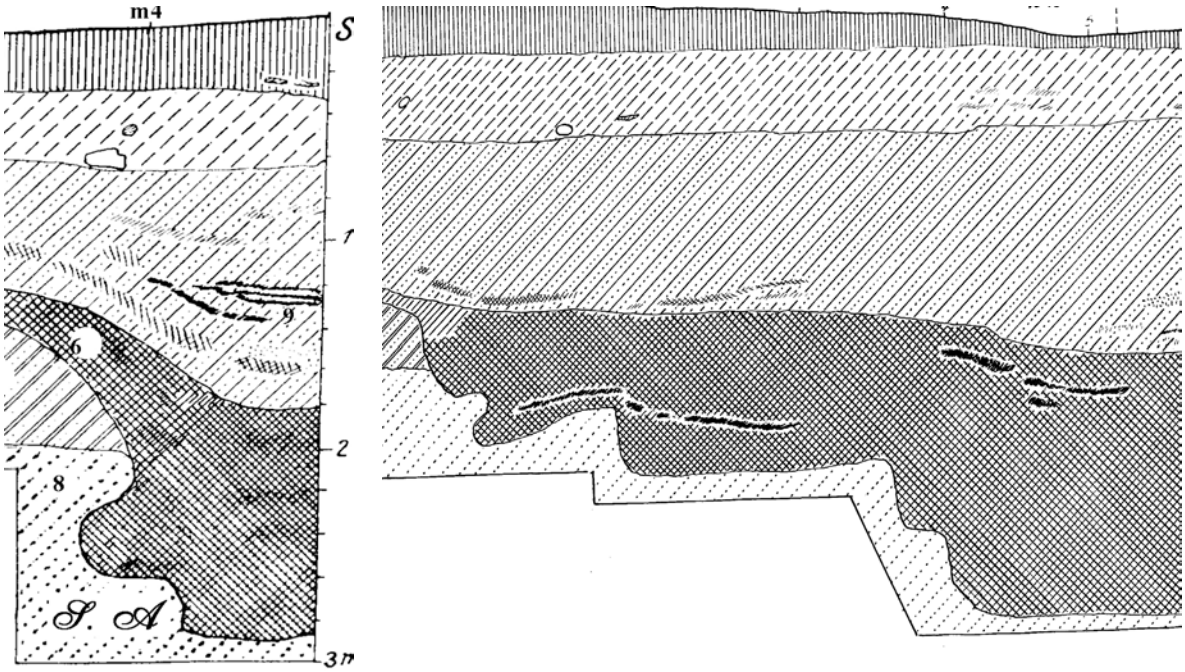


Fig. III.4. Pit houses profiles at Tărtăria with the trace of the roof pillar: a) Pit house B3, Surface A 1942; b) pit house B4, Sections B and F from 1943 (after K. Horedt 1949).

However, in most cases we do not know where the holes from the pillars are located. Based on fragments of channeled, black, polished ceramic (fig. IV.12), the pit house from Surface B (fig. III.4b) is one of the earliest Vinča A1-A2 complexes.

For Tărtăria we have more data from the drawings of the profiles and the comments accompanying them. For example, K. Horedt's comments suggest that in the southeastern corner of Surface E one part of a *cabane* corresponds to pit house B1[89].

Based on his comments, it is possible to estimate the structure of the pillars that sustained the roof. We do not believe that pit houses were plastered with yellow clay – as in some ethnographic analogies. In addition, no such material has been found in the filling of the pit houses after their abandonment. We have two close analogies for reconstruction (fig. III.5).

The presence of stairs in pit houses is very important because they mark the places where it was possible to stand upright (the more restricted and deep areas) and the margins of the complex where there were spaces for household activities or sleeping.

Only one pit house was entirely uncovered, marked by us as Pit house 1 (B1). This was excavated by N. Vlassa and we do not exclude the possibility that K. Horedt was aware of its existence, because it was marked in the profile. The material from this pit house was put together with the one that resulted from scraping and straightening up the profile. Pit house 1 is the closest to the ritual pit, but we have no further proof suggesting that the two were connected.

The ritual pit is situated at about 1.3 m north from Pit house 2 (B2) and from the limit where it was possible to stand upright. It is possible that on this margin, there was an undetected household area, and in this case, the ritual pit could have actually belonged to the pit house. Anyhow, C14 data indicate an older age for the bones of the *Milady Tărtăria*[90] discovered in the ritual pit. It has to be mentioned that even larger pits were visible in the profiles. We are unsure about their purpose and there are no notes regarding their content. In addition, these pits seem to have been detected only in the excavation profile at the end of the excavations. The contours of pit house 2 are different in the profiles drawn by N. Vlassa and I. Paul.

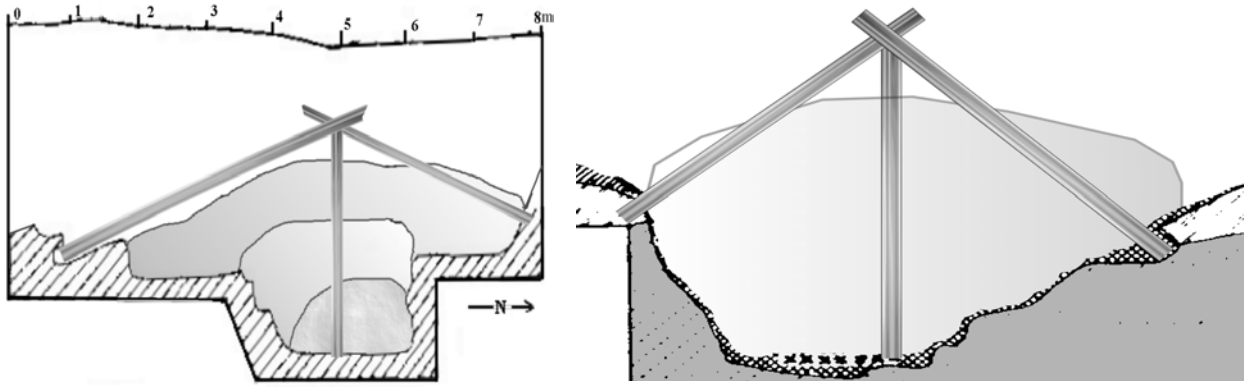


Fig. III.5. Tărtăria: our reconstructions of the structure of pit houses: a) B4, Surface B (Vinča A2); b) B2, Surface G.

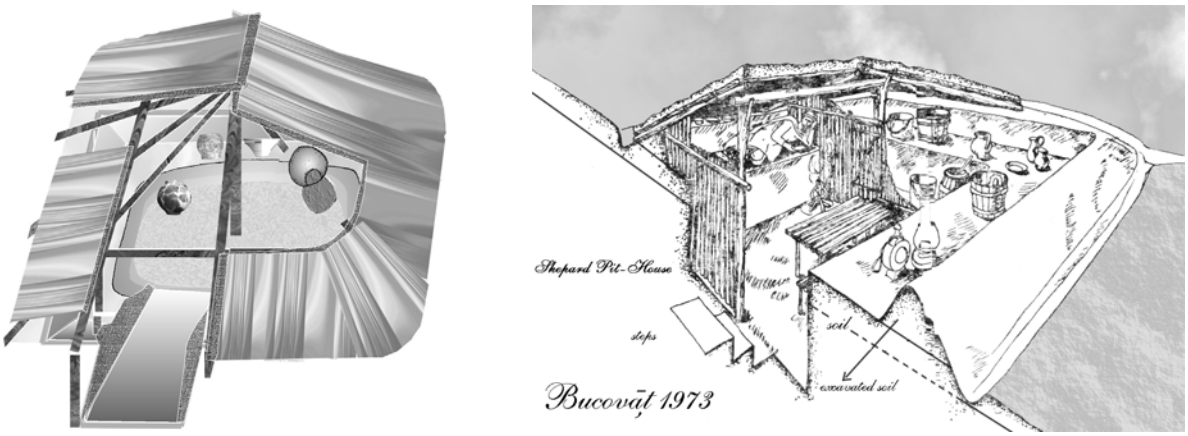


Fig. III.5. Other reconstructions of pit houses made by Gh. Lazarovici; c) Moldova Veche; d) sketch for Bucovăț.

[89] Horedt K. 1949, p. 53 mentions an idol head and pottery with red *engobe.* See Chapter IV and Chapter VI.

[90] Name attributed by Marco Merlini at Novi Sad: Merilni M. 2005.

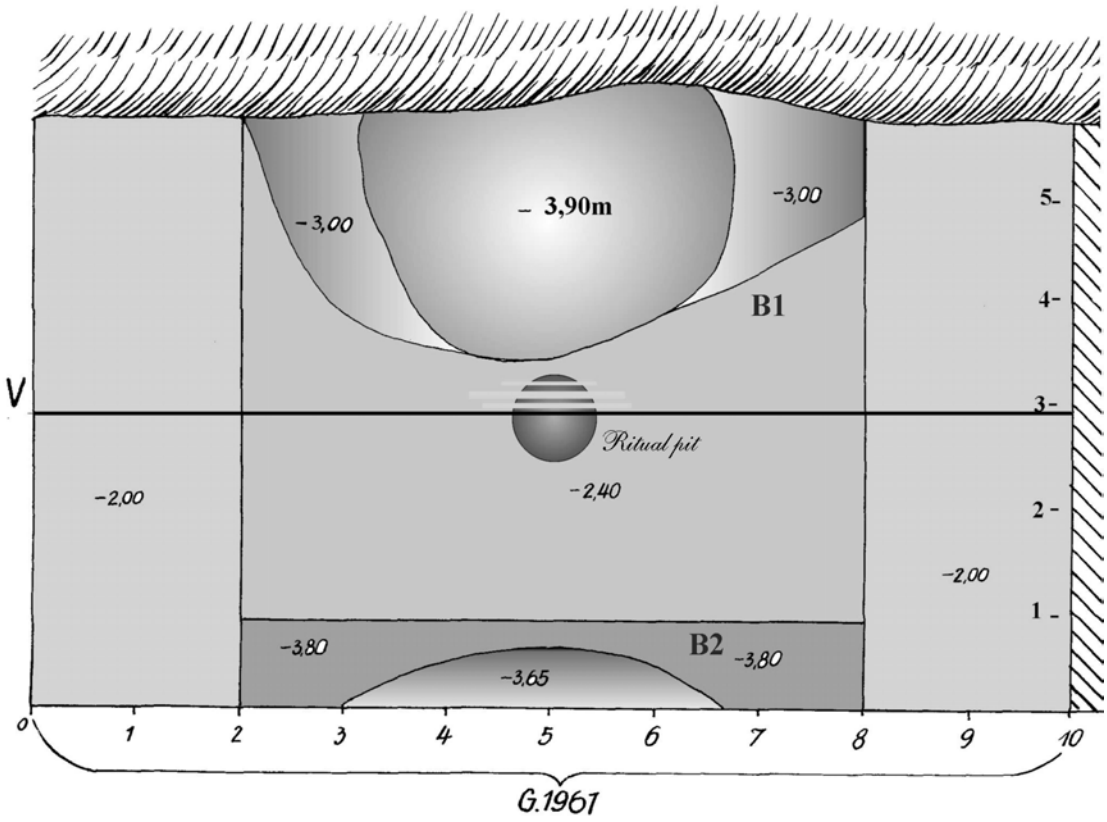


Fig. III.6. Tărtăria: Surface G, Pit house 1 (B1) with household spaces around.

SURFACE HOUSES

Judging by the discovered fired platforms, postholes and pillar holes, it seems that there were many surface houses.

Although our interpretations comport some subjectivism, and while they are not related with our own excavations, we think it is important to underline some architectural elements that could be useful for future research at this site. The very good profiles published by the three researchers working here, allow us to make further interpretations, to understand and make some approximations regarding the Neolithic architecture at Tărtăria. "Reading" and comparing the profiles of the same area made by Nicolae Vlassa and Iuliu Paul (they do contain differences: the profile made by N. Vlassa was eroded over time and afterwards readjusted by I. Paul) we can observe that they are complementary. Because the profiles made by I. Paul are more explicit, they allowed us to reconstruct more complexes.

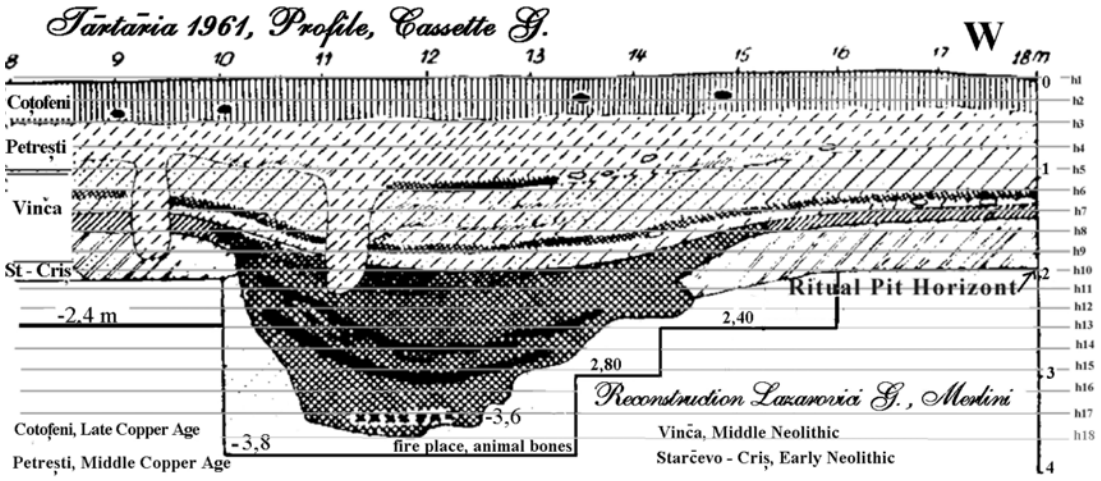


Fig. III.7. Drawings of profiles from Tărtăria: a) southern profile of Surface G made by N. Vlassa (reconstruction made by Gh. Lazarivici and M. Merlini).

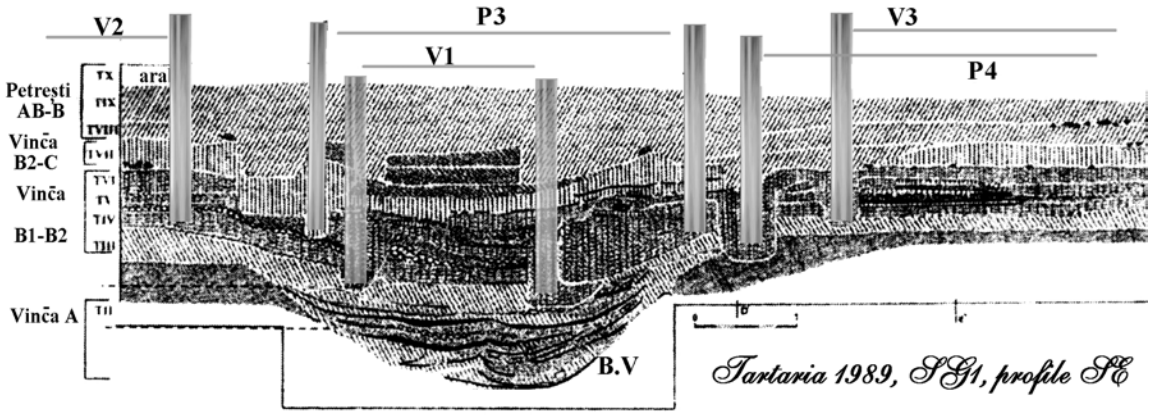


Fig. III.7. Drawings of profiles from Tărtăria: b) southeastern profile of the Gradient SG1 made by I. Paul 2007.

VINČA HOUSES

Studying the profile drawn by I. Paul, it is possible to observe three Vinča houses (named by us V1–V3, fig. III.7b); one of them is superposed on Pit house 2 in N. Vlassa's profile. Based on Paul's profile, V1 (P = platform) belongs to Vinča B1–B2 horizon.

A **second house V2**, in the same profile, has a floor that consists of several renewed levels, a house that extends to Surface C of K. Horedt's profile. In Surface C, he mentioned a "fireplace" with several clay solderings from a habitation complex and a human skeleton (see Chapter VI). The **third** Vinča **house**, **V3** is to the west, having several renewed floor levels. We can detect only one dimension of the mentioned houses that can be observed in the profile (we are unable to specify if it represents the length or width): **V1** – 2.2 m; **V2** hard to specify; **V3** – 3 m; **V4** from gradient SG1 of I. Paul's drawing has one side of 2 m.

Even in the profiles' drawings, we can see the floors but there is no information about them in the studies written by N. Vlassa or I. Paul. From the same profiles, we can observe that houses have lasted long, having several renewals and firing periods. Hopefully, the next excavations planed in this area will provide some edification.

One of the most interesting houses was excavated by K. Horedt, in Section B. The floor of the house was built on top of a Turdaș level from 1.80 to 1.90 m, with an average of 10 cm thick (sometimes thinner or thicker).

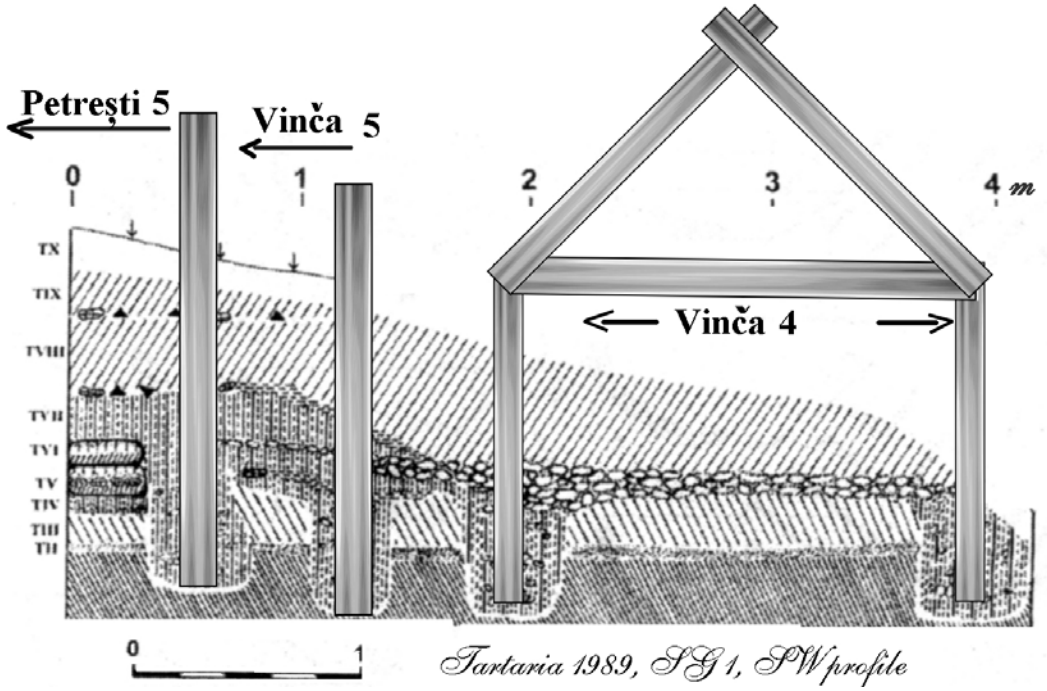


Fig. III.8. Tărtăria: Gradient SCI made by I. Paul, the southwestern profile, located to the west of pit house 2 (B2) of N. Vlassa.

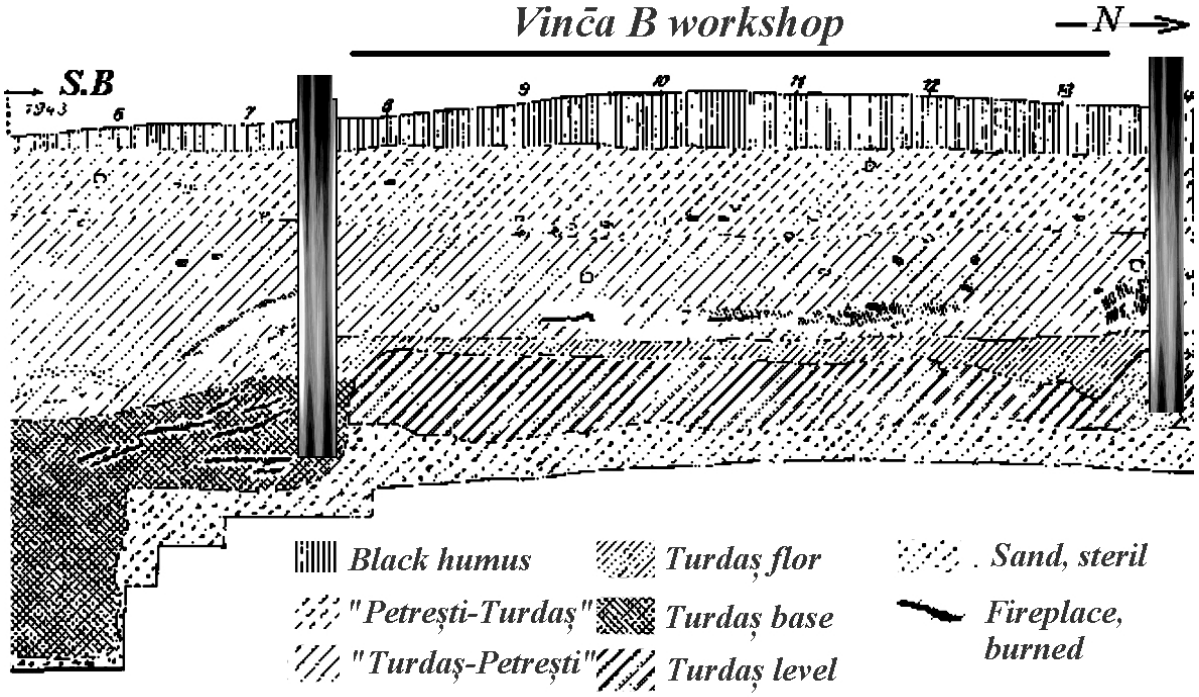


Fig. III.9. Tărtăria: Section B made by K. Horedt, with Vinča B pottery workshop.

To the northern side, there was an arrangement, possibly an older pit or reinforcement for a pillar. To the south, a posthole cut some charcoal layers from the filling of the pit house in 1943. On the level, a renewal period is noticeable, possibly connected with the construction of the "*potter firing oven*" as K. Horedt suggests. The floor is very straight, well flattened. This is similar to the situation found in other houses, but in those cases because of tamping, the floors seem deformed. One of the sides of the house is over 5 m long, suggesting it was a large house. This house seems to be the oldest Vinča B1 house.

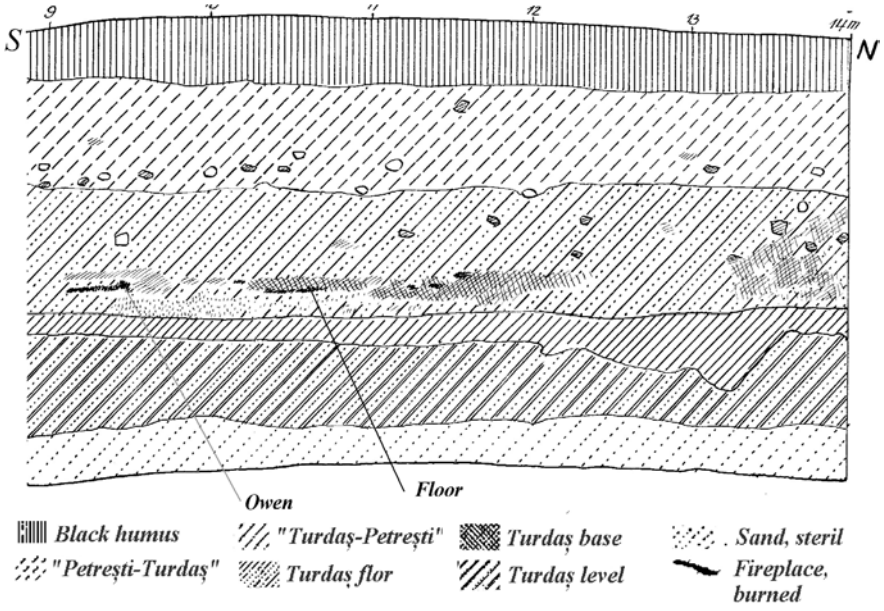


Fig. III.10. Tărtăria: Section B made by K. Horedt (house V6 or pottery workshop), profile with notes (1, yelowish-brown soil of Turdaș layer pigmented with ashes and charcoal; 2, filling soil of the Turdaș pit house; 3, brown clay, sterile; 4, fired floor; 5, big stones; 6, adobes; 7, charcoal; 8, burned area; 9, ash).

Only some ceramic fragments seem to belong to Turdaș I, in today's acception of the term. The lack of Tăulaș-type materials and of those characteristic for Turdaș (quadrilateral pots[91], perforated idols and amulets[92]) suggests that Turdaș materials together with Zau ones (Iclod I type) arrived from Central Transylvania from Zau – Cluj and extended north to Halmeu. At Tărtăria, there are few Turdaș materials.

We relate the destruction of some Vinča B1–B2 houses (for B2 phase the lack of black pottery or its presence in low percentage raises question marks) with

[91] See Vlassa N. 1970, fig. 5/4–7; Lazarovici Gh. 1987; 1994; 2009, p. 183 ff. and the bibliography.

[92] Vlassa N. 1966a (= 1976), p. 100–106: typology, analogies; Lazarovici Gh. 1979, p. 94–101: typology, evolution, connections; Dumitrescu Hortensia, Lazarovici Gh., 1984–1986: large analogies for the quadrilateral pots.

the Turdaș or Foeni groups. The lack of late Vinča B houses and the sparseness of Vinča C materials question the existence of the Vinča C phase or the phenomena that occur at that time, in the second part of Vinča B2 stage (earlier we have used the term Vinča B2C[93]). We believe that the Turdaș movement towards Central Transylvania determines the appearance of some groups in the Zau culture.

K. Horedt's notes contain few details, but the legend of the profile is very important for the reconstruction of some architectural elements of **house V6** (pottery workshop – see below). A brown-yellow layer, pigmented with ashes and charcoal, has the aspect of a well-flattened floor. The presence of ceramic fragments in the floor is not disturbing; it adds to the quality of the dried floor. Layers of ashes, burned layers and two – three levels of charcoal mark the habitation levels and the renewals of the floor. The oven for firing pottery was located on this floor. On the profile, in the Petrești level, big stones are marked. Some of them could have served as bases for the walls of the houses (see below). A clay group, the burned area at meter 14, might be related with the burned demolishment, and especially with the unburned parts of the walls.

PETREȘTI HOUSES

In N. Vlassa's profile, we can identify two Petrești surface houses based on the depths reached by the pits. **House P1 (P** from Petrești) has one side of about 4.3 m; in **P2** the side is over 4 m. Neither Vlassa, nor Korendt mention ditches for the foundations of the walls, even though they are known in Vinča. In I. Paul's profile over a Vinča house **V1** (fig. III.7b) there is a Petrești house **P3** that has a side over 3 m.

Houses P1 and **P2** on N. Vlassa's profile have only one level with ruins. **House P3** has a rather thick floor, with two-three stages of renewals that can be observed on N. Vlassa's profile, too. **House P4** has three big stages and seems to have another mixture. **P5** can be seen in the southwestern gradient in SIG/1985 made by I. Paul.

From K. Horedt's observations there are interesting data regarding two houses found at –1.05 m that belong to the Petrești level, **houses P6 and P7.** The bottom of the Petrești level is at this depth, also suggested by other profiles; there is a horizon where both layers are mixing (Petrești and Vinča). Today the time distance between Vinča C (after 4850 CAL BC) and Petrești AB (after 4500 CAL BC) is a of minimum 300 years.

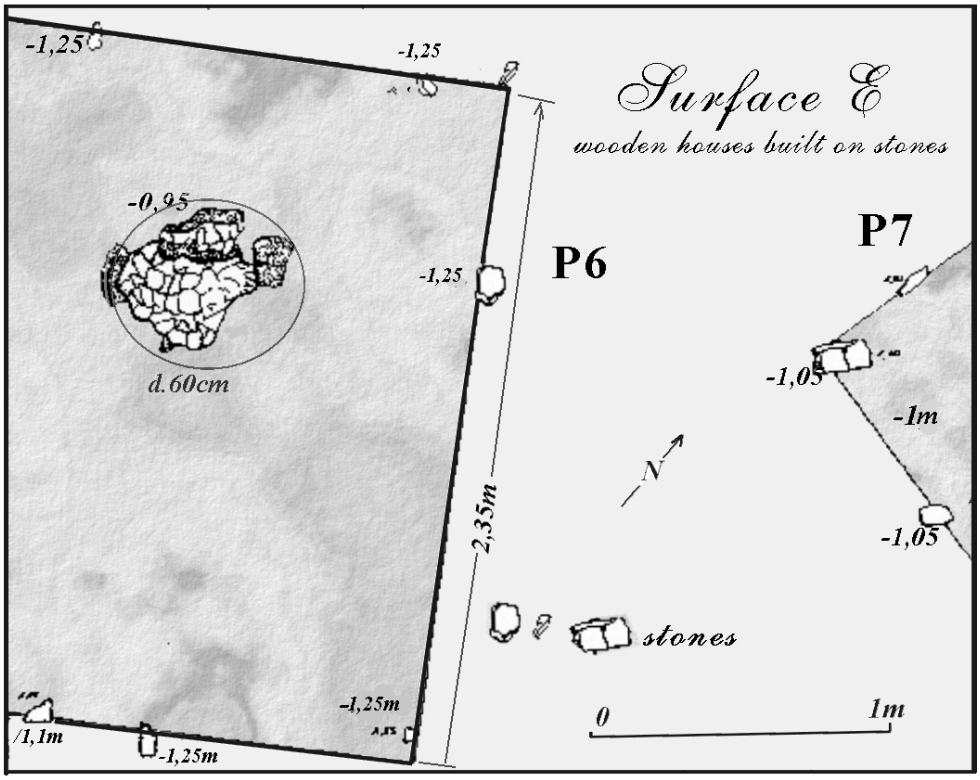


Fig. III.11. Tărtăria, Surface E with Petrești houses, P6 and P7.

[93] W. Schier reanalyzing the discoveries in Serbia and Western Banat defines an early Vinča C stage that starts at –6,2 m at the Vinča site.

Wooden houses raised on a stone base (that protect the wood against decay, offering a drier and wormer living area, as is proved by several houses in Romanian ethnographic museums such as Cluj, București, Sighet etc.) are known from Petrești culture, at Ghirbom[94] being discovered such a house, where the floor and walls have been settled on a stone base.

Fig. III.12. Sanctuary raised on a stone base.

Fig. III.13. Village Museum, Cluj.

In Surface E, between –1.05 m and –1.25 m, two houses have been noticed as well as many stones used as bases for their wooden walls. For house **P6** we know only its width, 2,35 m, which suggests it was a middle-size complex. In the middle of house **P6,** a big fireplace (diameter of 60 cm) was a little bit raised up from the floor. This suggests that it is related with a later level, or that it was build on top of a podium, which would indicate an oven. The fireplace is described by K. Horedt in detail: " [A]*t 1 m, at the height of the especially thick red burned layer,* [in the inventories N. Vlassa mentions **Vinča – Petrești materials** = layer II Vinča B, our note], *a fireplace with three superposed layers has been discovered. From the upper layer at 0.85 m a small part was preserved. Under it is the big surface, the second part of the fireplace and under this one the third one, with similar dimensions to the second one. The clay plastering of the fireplace is 4 cm thick and is seated on a layer of sherds and small stones*"[95]". This suggests that in the last phase there was a small fireplace, which goes to explain some details of the plan (**fig. III.11**).

At about 1.2 m from this house was another one, **house P7** with a similar architecture, including stones for the wooden structure of the wall. The house was differently oriented and a bit later, being discovered at a lower depth (stones were at –1.05 m and the floor at –1 m).

Such houses with stones on the bottom have also been noticed in the Petrești culture at Ghirbom, where one of the houses contained a cult complex.

It is possible that one of the complexes was caught in I. Paul's section. We believe that the colleague from Sibiu, who is excavating now at Tărtăria, might find these levels as well as big stones on the bottom of the houses.

Fireplaces and ovens

Although very important, we have only scarce information about fireplaces and ovens. The earliest fireplace was found on the floor of pit house **B2** (N. Vlassa's profile), in pit G. For B2 we have no technical data. I. Paul's profile contains some information but lacks descriptions. K. Horedt mentions a fireplace in house **P6** at the Petrești level. According to the plan, the fireplace was 10 – 15 cm higher than the floor and based on the drawing it seems to have had a frame. In his notes, layers of burning or seasonal fireplaces found at different depths are mentioned. For owen we have mentioned several analogies[96].

[94] Aldea I. Al. 1974; 1975; Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 56–58 and ethnographic analogies.

[95] Horedt K. 1949, p. 52.

[96] Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, about ovens, see p. 26, 28, 29, 55–56, 70, 73, 96–97, 103, 106–108, 111, 114, 123–124, 131, 133, 147–149.

Workshop for pottery

At **–1.9 m**, in Section F a habitation complex was discovered. An oven was found on the margin of the floor (fig. III/14). The mouth of the oven was oriented towards the inner part of the complex. This was an oven for firing pottery and the hearth structure contained stones and ceramic fragments. This manner of oven building was in use for a long time and it determined the special qualities of the fireplace. Even today, farmer's bread ovens still use this technique, but stones and ceramic fragments are replaced by glass.

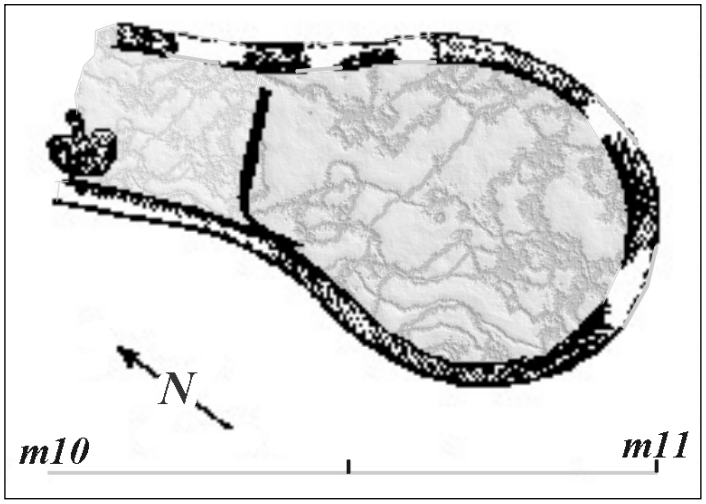


Fig. III.14. Oven at Tărtăria, Section B.

Gh. Lazarovici has investigated and excavated this type of oven at Parța, dating from the Early Medieval period[97]. At Ruginoasa and in the Cucuteni culture several ovens and fireplaces with a stone bottom have been investigated. These complexes were discovered in pit houses and in surface houses[98]. Ovens with a fireplace in front of them are known starting with the Vinča culture (phases B and C[99]), in the Banat culture[100], and in several other civilizations of the Neolithic and Copper Age[101].

Pottery ovens are less known[102] and their functional role is harder to determine based solely on their shape. In all types of ovens which are dug into the wall of the pit house, pottery can be fired, while the temperature reached inside is higher and can be controlled. The only site where we have found such a workshop for pottery was at Zorlențu Mare, in the Vinča B1 level[103].

We do not disregard K. Horedt's opinion that this complex belonged to a potter, while the house had a very well made floor and was located on the southern margin of the site.

Conclusions

Based on the last research (Turdaș 2011) we do not exclude that further investigation will bring new data regarding the defensive system of the Tărtăria site.

Pit houses characterize the beginning of many habitation levels of several civilizations, including Vinča and Tărtăria site (pit houses B1–B4). Regarding the connection of the ritual pit with other complex is very difficult to make any suppositions in this moment. Even pit house 1 was the closest to the ritual pit we still have not proofs that was related to this complex. More, the ritual pit is not very far from pit house 2 (that maybe included a household area as we have mentioned), so we do not exclude possibility to be related with the last one.

Surface houses are present in Vinča time (V1, V2, V3 and V4), comporting a long lasting period, including renewals and firing periods. The oldest Vinča B1 house, very interesting and large, was discovered by K. Horedt in Section B, including a potter firing oven.

Such houses are related with Petrești culture at Tărtăria too (P1–P7). Some of them have stones used as floor bases (P7) and clay floors have renewals as well as fireplaces.

97 Lazarovici Gh. et al. 2001, p. 194, L111.
98 Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 208–213.
99 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, Vinča: pottery workshop p. 20, 21, 76; ovenes, p. 38, 45, 48, 52, 53, 55, 74, 78, 80, 81, 89, 95.
100 Lazarovici Gh. et alii 2001, p. 145, 153, 157, 161, 164, 165, 169.
101 Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 124.
102 Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 42.
103 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 155, fig. IIIa.38.

CHAPTER IV
THE STUDY AND EVOLUTION OF TĂRTĂRIA POTTERY

GHEORGHE LAZAROVICI, CORNELIA-MAGDA LAZAROVICI

Pottery and animal bones are generally the most frequent materials found at Tărtăria. Unfortunately, animal bones have been selected (without criteria) during excavations and only a small number of them have been preserved. We have used some bones for radiocarbon dating. Pottery was also selected during excavations. Usually, big lip fragments, bottoms of pots, pots that seemed reconstructable, entire pots, or fragments with decorations have been preserved. As a consequence, there are no strict criteria for statistic analyses and as such, we have made a global analysis of the characteristics of the Tărtăria pottery.

THE NEOLITHIC PERIOD

Vinča culture. Quantitative analyses

	UC	SF	F	Sum	%
Sum	250	170	171	591	
Surface G, h3	32	29	23	83	14.04
Surface A V 0.60 m	20	14	16	50	8.46
without depth, box 1	12	17	19	48	8.12
Surface A II 0.60 m	21	8	18	47	7.95
without depth, box 2	22	14	10	46	7.78
without surface 0.20 m	19	16	9	44	7.44
Surface G 3.20–3.40 m	23	7	13	43	7.27
Surface A III 0.60 m	16	12	9	37	6.26
Surface G, h3 A IV 0.60 m	17	8	12	37	6.26
Surface G h1 0.20 m	10	10	16	36	6.1
Surface G h2 0.40 m	14	9	9	32	5.41
Surface G, h3 0.60m	12	9	10	31	5.24
Surface G 26?; h7 box 1	13	7	10	30	5.07
Surface A II 0.20 m	16	8	2	26	4.4
Surface A I 3–3.20 m	10	4	2	16	2.7
Section H, h6 1.20 m	5	5	3	13	2.2
Those with only one fragment have been eliminated.					
Percentage	42.3	28.7	29		100

Table IV.1. Tărtăria: pottery types (UC = common utilitarian; SF = semi-fine; F = fine).

Categories

Pottery was classified based on the constant characteristics of our database.

The analyzed lot comes mainly from N. Vlassa's excavations because his findings were less selected in comparison with materials from other excavations. From K. Horedt's excavations only part of the material was preserved for analyses.

In Table IV.1 materials are arranged in decreasing order. Most of the Vinča materials appear in the third digging level of N. Vlassa's excavation (–0.45 m), followed by the ones found by K. Horedt in Surface A, located in the same area.

There are mainly small lots of materials, which are not enough for classification. Common, utilitarian pottery prevails, followed in equal proportions by semi-fine and fine pottery.

	Brick color	Ash color	Brown	Dark brown	Light brown	Black-ash	Whitish-ash	Brown & rainbow	Fawn whitish	Brown –reddish	Black	Sum	%
Sum	99	88	75	74	74	53	43	27	14	23	6	591	
Percentage	16.7	15	13	12.5	12.5	9	7.3	4.6	2.4	3.9	1		100
Surface G, h3	6	7	11	6	6	6	4	1	2	1	1	52	8.8
Surface A V 0.60 m	8	4	4	11	4	6	4	1	3	5		50	8.46
without box 1	12	7	5	5	8	6	2	1	1			48	8.12
Surface A II 0.60 m	5	9	5	4	9	2	3	3	1	4	1	47	8
without depth, box 2	7	8	9	4	2	3	5	5	2	1		46	8
without surface 0.20 m	9	5	3	9	4	4	3	2		1	2	44	7.4
Surface G 3.20–3.40 m	5	7	4	3	10	3	4	1	3	3		43	7.3
Surface A III 0.60 m	6	7	5	1	9	2	3	3		1		37	6.26
Surface G, h3 A IV 0.60 m	5	5	2	8	4	5	4	1			1	37	6.26
Surface G h1, 0.20 m	5	1	6	4	7	6	2	1		2	1	36	6.1
Surface G h2, 0.40 m	8	4	8	2	1	1	4	3				32	5.4
Surface G, h3, 0.60 m	7	3	3	3	4	1	1	3	1	3		31	5.2
Surface C 26?; h7, box 1	4	9	1	7		3	1	1	1	2		30	5
Surface A II, 0.20 m	3	3	5	7	3	1	2	1				26	4.5
Surface A I 3–3.20 m	7	4	2			1						16	2.7
Tărtăria Section H, h6, 1.20 m	2	4	2		1	3	1					13	2.2
Ceramic color under 1% was eliminated from the table													

Table IV.2. Tărtăria external pottery color.

The predominance of utilitarian pottery suggests a practical community that was less interested in luxury or esthetic objects.

The external color of pottery

The prevailing color is brick red, followed by ash-grey, brown, and black-ash. These colors indicate that the firing process took place in special ovens or in open pits. Black pottery, which requires a controlled firing process, represents only 1%. Nevertheless, very good quality black color pottery has been found in excavations.

The interior color of pottery

In respect to the interior color, the percentages are slightly different. Brown prevails, which supposes a well-reduced firing, followed by brick color (well-oxidized firing), then black ash, and ash (reduction firing).

	Dark brown	Brick color	Black-ash	Ash color	Light brown	Whitish ash	Indeter-minate	Brown	Brown ,rainbow	Whitish mauve	Black	Sum	%
Sum	108	94	74	69	56	48	48	46	15	13	11	591	
Percentage	18.2	15.9	12.5	11.6	9.4	8.1	8.1	7.8	2.54	2.2	1.8		100
Section G, h3	14	10	5	3	2	6	5	3	2		1	52	8.8
Surface A V, 0.60 m	13	8	8	2	5	3	6	2		2		50	8.4
without, box 1	4	10	4	8	5	4	2	5	2	3	1	48	8.1
Surface A II 0.60 m	9	5	3	7	2	5	7	7				47	7.9
without depth, box 2	8	12	4	6	1	3	3	6	1	1		46	7.8
without surface 0.20 m	11	10	5	4	6	2	2		2		2	44	7.5
Surface G, 3.20–3.40 m	10	2	4	5	7	5	5	2	1	2		43	7.28
Surface A III 0.60 m	5	2	7	3	7	2	6	4			1	37	6.2
Pottery under 1% was eliminated from the table as non significant													

Table IV.3. Tărtăria interior color of pottery.

It is possible to analyze the correlations between different types of pottery firing. This can indicate if pots have been fired in ovens, if the interior color is similar to the exterior one, and if both colors are, or are not, correlated. The correlation is based on the clay that obtains a specific color through firing. However, only in a few cases the interior color matches the exterior one (cases marked with red in the table). This happens only in the case of some colors: black, ash black, black ash to one end of the series, and brick color and whitish ash to the opposite end. Other colors deviate from this rule (red marking in the table): ash color and brown (maybe as a retardation element, or a new one), as well as light or dark brown. Brown-reddish is not correlated (light green color in the table) but represents a less frequent category, which makes it impossible to generalize. Other deviations in the series are for brown with rainbow color correlated with black ash and brown, dark brown. It is difficult to make generalizations because the direction of evolution for this site is unknown, the analyzed lot is too small, and the stratigraphy is unsure. If the analyzed lots were bigger and some experiments had been done, as well as stratigraphic correlations, the color correlations could have offered interesting data regarding people's knowledge of the firing process and its control.

Well-polished black pottery is characteristic for Vinča A and reappears during the time of Vinča C as a result of migrations that took place in Banat, and possibly Transylvania. The connections with Banat for the Vinča A phase are rather evident. The lack of pleating and channel ornaments, characteristic elements for Banat (Zorlențu Mare) suggests connections between Vinča B at Tărtăria and the southern areas of Transylvania at Miercurea Sibiului[104], where the pleating ornaments vary on complexes between 0.2%–5.1%, and channels 0.2%–1.5%. (At this site materials have not been selected, and the analysis reflects the complexes' distribution).

Interior color ▶ / Exterior color ▼	Black	Black-ash	Brown	Ash	Brown reddish	Brown and rainbow	Whitish mauve	Light brown	Dark brown	Brick	Whitish ash
Black	5		1								
Black-ash	2	26	1	13			1	2	2	2	3
Brown and rainbow	1	9	3	3	1	3			4	3	
Dark brown	1	8	4	5	1	3	1	3	34	11	
Light brown	1	2	9	1		2	3	29	2	6	4
Brown reddish		1	1	1		1				2	
Ash		9	4	28		1	4	2	17	7	15
Brown		5	14	4		1	1	10	23	11	2
Whitish mauve		1	1	1			3	1	3	2	
Brick		10	6	3	1	3		4	19	45	
Whitish ash		1	1	7				3	3	4	23

Table IV.4. Tărtăria, ratio between the interior and exterior pottery color.

Smoothing of the pottery

Smoothing offers important data about the technology used for making pottery. Smooth and rough pottery prevails, followed by polished and well-smoothed pottery. The technologies used should be analyzed considering the ceramic categories. Characteristic of Vinča A is the retention of the ceramic category "pseudo-barbotine" in which the pot surface was smoothed by hand or with a spatula while the paste was soft. A porous, undecorated ceramic fragment might belong to the Zau culture, since such materials have been mentioned in N. Vlassa's[105], I. Paul's[106], and K. Horedt's excavations in Surfaces A, C, and Section D (see Chapter II). Red *engobe* is characteristic of Vinča A and B, and sometimes it replaces the *blacktopped* technique.

[104] Suciu C. 2009, p. 240.

[105] Vlassa N. 1976, fig. 4, except fig. 8 that is Vinča.

[106] Unpublished materials that we have seen together with B. Brukner. We thank I. Al. Aldea for showing us these materials.

	Smoothed	Harsh	Polished	Well smoothed	Flouring	Red *engobe*	Porous	Painted slip	Pseudo-barbotine	Indetermi-nate	Sum	%
Sum	178	158	112	70	28	27	6	7	2	2	591	
Percentage	30.1	26.7	19	11.8	4.74	4.6	1	1.18	0.34	0.34		100
Surface G, h3	18	13	7	10	1	1		2			52	8.8
Surface A V 0.60 m	15	11	10	5	5	4					50	8.46
without depth, box 1	13	9	20		1		1		2	1	48	8.1
Surface A II 0.60 m	11	15	13	4		4					47	7.95
without depth, box 2	15	15	5	7	2		2				46	7.7
without surface 0.20 m	13	14	6	6	2	3					44	7.4
Surface G 3.20–3.40 m	10	15	6	7		3	1	1			43	7.27
Surface A III 0.60 m	9	12	5	10		1					37	6.26
Surface G, h3 A IV 0.60 m	11	8	8	3	5	1				1	37	6.26
Surface G h1 0.20 m	11	7	9	4	1	3		1			36	6
Surface G h2 0.40 m	13	8	5	2	1	2		1			32	5.4
Surface G; h3 0.60 m	6	11	4	5	1	2	1	1			31	5.2
Surface C 26?; h7 box 1	7	10	8	1	2	2					30	5
Tătăria Section H, h6 1.20 m	5	2	3	1	2						13	2.2
Situations under 5 % have been eliminated from the table as non significant												

Table IV.5. Tărtăria, technologies used for pottery.

Mixture

	Sand and pebbles	Fine sand	Sand	Big sand berry	Sand and silt	Sand and silt variant1	Sand and silt variant12	Sum	%
Sum	175	184	95	74	34	17	5	591	
Percentage	29.6	31	16	12.5	5.75	2.9	0.8		100
Tărtăria Surface G, h3	12	19	11	6	4			52	8.8
Tărtăria Surface A V 0.60 m	16	16	7	4	4	2	1	50	8.46
Tărtăria, without depth, box 1	9	20	11	3	1			48	8.1
Tărtăria Surface A II 0.60 m	10	19	6	11		1		47	7.953
Tărtăria, without depth, box 2	15	13	6	8	4			46	7.8
Tărtăria 0.20 m	13	12	6	8	2	1	1	44	7.4
Tărtăria Surface G 3.20–3.40 m	18	13	5	6		1		43	7.27
Tărtăria Surface A III 0.60 m	10	9	9	5	1	3		37	6.26
Tărtăria Surface G, h3 A IV 0.60 m	13	10	3	4	4	3		37	6.26
Tărtăria Surface G, h1 0.20 m	5	13	6	5	2	3	2	36	6.1
Tărtăria Surface G, h2 0.40 m	10	14	2	2	2	1		32	5.4
Tărtăria Surface G, h3 0.60 m	7	11	5	5	1	1	1	31	5.2
Tărtăria Surface C 26?; h7, box 1	10	10	5	3	2			30	5
Tărtăria Surface A II 0.20 m	16	1	5		3	1		26	4.4
Tărtăria Surface A I 3–3.20 m	7	1	3	3	2			16	2.7
Tărtăria Section H, h6 1.20 m	3	3	4	1	1			13	2.2
Fragments under 1% have been eliminated from the table as non significant									

Table IV.6. Pottery mixture.

The study of the paste's mixture offers information regarding the local clay and the technology used for degreasing with substances from the Mureș River or from the neighboring stream.

For clarifying these aspects, special analyses of clay sources and ceramic samples are needed. The mixture of ceramic with sand, sand and pebbles, and rough sand is mainly related with the high

percentage of everyday, utilitarian pottery (see upper category). The Vinča culture brought this new technology and influenced neighboring civilizations or those to whose genesis it has contributed.

Firing

The firing of pottery at Tărtăria maintains the characteristics of Vinča ceramics, namely a good firing process with good reduction, followed by good techniques of oxidation. The secondary firing process is noticeable only in the case of *rainbow* traces, which are the result of pottery usage or firing techniques.

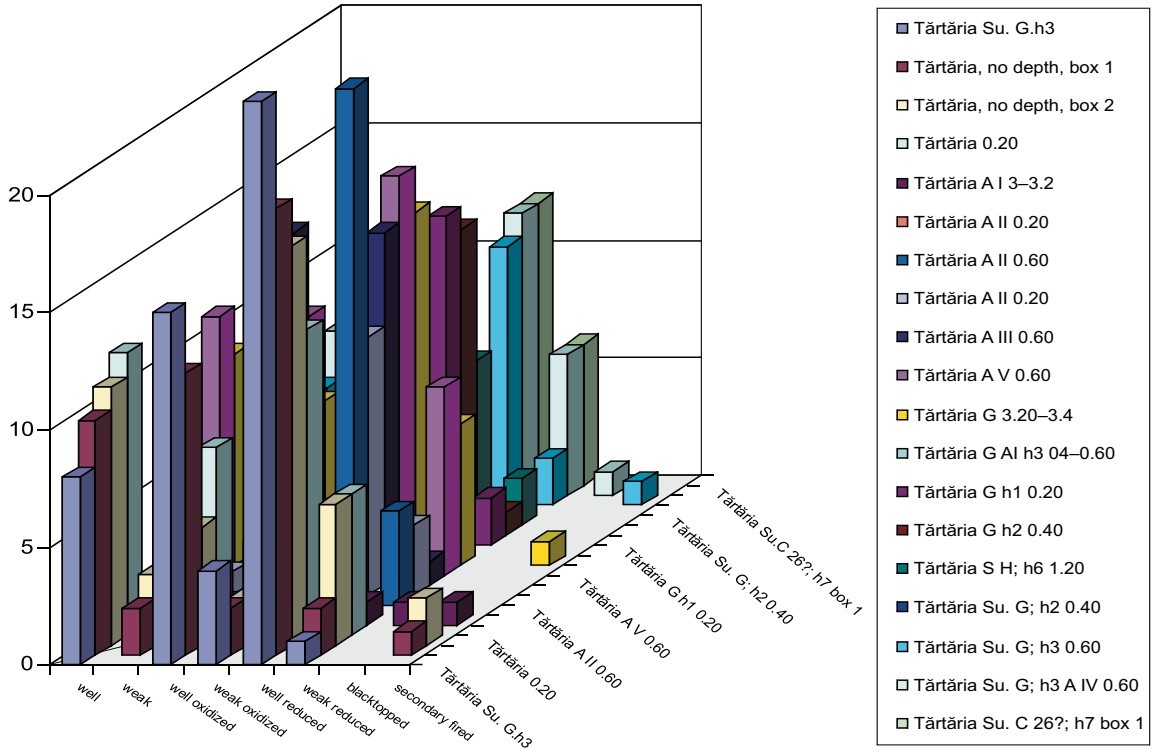


Fig. IV.7. Tărtăria graphic with the pottery types of firing.

A good firing process requires the use of advanced procedures, the control of the firing process, even more so in the case of well-reduced pottery, and the control of the oxygen used during firing. In the case of Tărtăria, the record of pottery development as evidenced in various depths of the excavation is not significant while the lots are small and unequally preserved. Because the preservation of the stratigraphic units is only orientational, we have not made a quantitative analysis on phases or levels.

Ornaments

	Stitches and incisions	Pleating	Alveolar	Incision	Alveolus with finger edge	A3 Alveolus	Perforation	Sum	%
Sum	36	17	16	13	9	7	2	104	
Percentage	34.6	16.3	15.3	12.5	8.65	6.7	1.9		100
Surface G, h3	5	3		2		2		12	11.5
Surface A III 0.60 m	1	3	4	1	2			11	10.5
without depth, box 2	4	3	2					9	8.6
Surface A V 0.60 m	5		1	3				9	8.6
Surface G, h3 A IV 0.60 m	3	2	1		1		1	9	8.6
Surface A II 0.60 m	1	1	2	3	1			8	7.7
Surface G h1 0.20 m	2			2	2	1	1	8	7.7
without depth, box 1	3	2	1					7	6.7
0.20 m	3	2			1			7	6.7
Surface G; h3 0.60 m	5					1		6	5.8

	Stitches and incisions	Pleating	Alveolar	Incision	Alveolus with finger edge	A3 Alveolus	Perforation	Sum	%
Surface G, 3.20–3.40 m		1			1	2		4	3.8
Surface A II 0.20 m	1		1	1				3	2.8
Surface G h2 0.40 m	1		1			1		3	2.8
Section H, h6 1.20 m	1		2					3	2.8
Surface C 26?; h7 box 1	1							2	1.9

Table IV.8. Tărtăria, ornaments of the pottery.

Among the studied ceramics, about 1/6 of the fragments are decorated, which is surprising since in other sites the percentages are smaller (less than 10% in the best cases[107]). This is related with the selection of "typical" or decorated material. The most frequent ornaments are stitches and incisions, characteristic elements of Vinča ceramics.

	A3	A5	E2	A1	C3	C4	Sum	%
Sum	5	5	4	3	2	2	73	
Percentage	6.85	6.85	5.48	4.11	2.7	2.7		100
Surface A II 0.60 m				1	1	2	8	11
Surface A III 0.60 m	2		2	1			8	11
Surface G, h3	1	2			1		7	9.6
without depth, box 1		1					7	9.6
without depth, box 2	1	1					6	8.2
Surface A V 0.60 m							6	8.2
Surface G h1 0.20 m							5	6.85
Surface G, h3 A IV 0.60 m		1		1			5	6.84
0.20m	1						4	5.5

Table IV. 9a. Tărtăria, motives.

Continuation on horizontal of the table

	F3	M4	M5	M6	P10	P18	P4	P47	P7	Sum	%
Sum	4	3	5	5	2	2	2	2	2	73	
Percentage	5.48	4.11	6.85	6.85	2.7	2.7	2.7	2.7	2.7		100
Surface A II 0.60 m	1							1		8	11
Surface A III 0.60 m	1		1							8	11
Surface G, h3				2		1				7	9.6
without depth		1							1	7	9.6
without depth, box 2									1	6	8.2
Surface A V 0.60 m					1	1				6	8.2
Surface Gh1 0.20 m			2					1		5	6.85
Surface G, h3 A IV 0.60 m			1				1			5	6.84
0.20 m	1									4	5.5
Surface G 3.20–3.4 m	1			2						4	5.48
Surface A II 0.20 m		1					1			3	4.11
Surface G; h3 0.60 m				1	1					3	4.11
Surface G h2 0.40 m		1								2	2.74

Table IV. 9b. Tărtăria, motives.

[107] Suciu C. 2009, p. 201, fig. 339.

They are followed by pottery decorated with pleating, which is characteristic for Miercurea Sibiului, where it represents 0.2–4.7%. In comparison to Miercurea Sibiului, at Tărtăria there is a higher percentage of pottery decorated with stitches and incisions, which suggests a stronger Banat influence.

Meander incisions represent 12.5% at Tărtăria, a characteristic element for early Vinča, more frequent in comparison with Miercurea Sibiului where it represent only 5.1% in B5[108]. Our conclusion is that in Transylvania, the manner of decorating has stronger connections with Banat. It has been possible to detect the exact ornamental motifs used only in the case of 73 fragments.

The types of motifs are diversified and have characteristic elements. The missing of evident stratigraphic data does not allow a more precise analysis, although from a qualitative point of view, motifs have an evolution and dynamic which are well known in Banat[109] and at Miercurea Sibiului[110].

It is problematic to discuss the evolution of ceramics in the absence of an analytical study, but the old materials that have been sorted and selected in the field and lack statistic analyses can give errors as they represent the subjectivity of the person who made the selection[111].

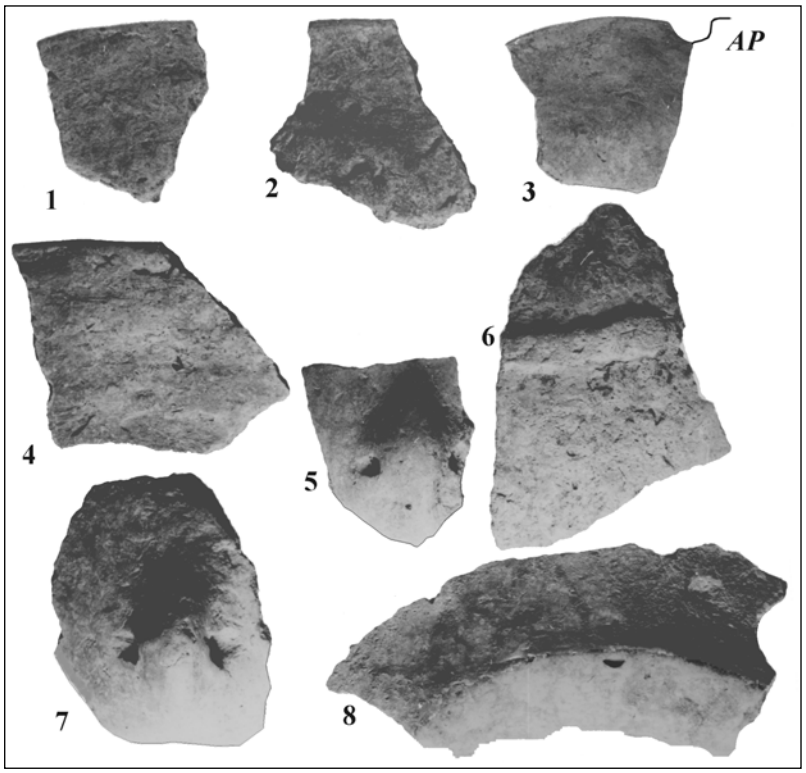
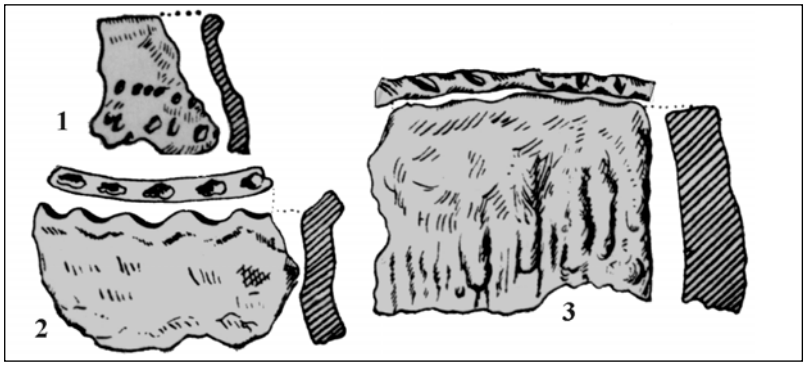


Fig. IV. 10: a)▲, b) ▼. Starčevo-Criș fragments from N. Vlassa excavation.



Starčevo-Criș pottery

The few fragments already published by N. Vlassa and K. Horedt (two fragments are mentioned from west of the bridge, Table II: 2a[112]) do not allow extensive observations. Pottery is mixed with chaff and weakly fired; the color is yellowish. The slip and motifs with pinches or *engobe* are missing, suggesting phase II of the Starčevo-Criș culture, since such sites are known in the area.

At Tărtăria (N. Vlassa, the typological plane with stratigraphy) there is a lip fragment decorated with an alveoli made by finger (fig. IV.10 a–b SC II) motif type AP[113]. It is possible that the fragments decorated with an in-relief belt also represent an early motif. We do not exclude the possibility that these motifs represent the result of diffusions from larger sites, such as Miercurea Sibiului, Șeușa, a.s.o.

The Balomir site is located on the margin of a terrace, at the mouth of a stream (Valea Cioarei), behind an old ballast exploitation, on a similar terrace to the one at Tărtăria, also affected by the overflows of the river Mureș (fig. II.7).

[108] Suciu C. 2009 p. 201.

[109] Lazarovici Gh. 1975; 1979 about Vinča culture; 1981, a.s.o.

[110] Nițu Florina 2008; Suciu C. 2009, p. 240–247, and bibliography.

[111] At Tărtăria thousands of ceramic fragments from I. Paul excavations have been buried. Sometimes fragments of monumental idols were found.

[112] MNIT inventory no. 15702–15703.

[113] Large comments regarding this sort of motif type in the Balkans: Lazarovici Gh. 1994; 1995; 1996; 1998; 2000b; 2006 p. 123–125 and bibliography.

Vinča A culture

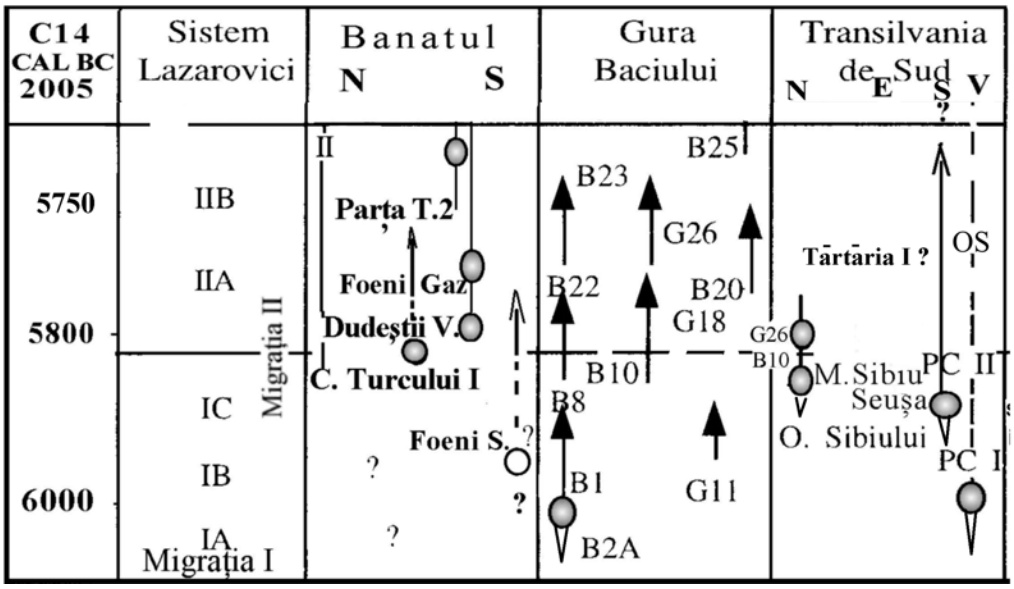
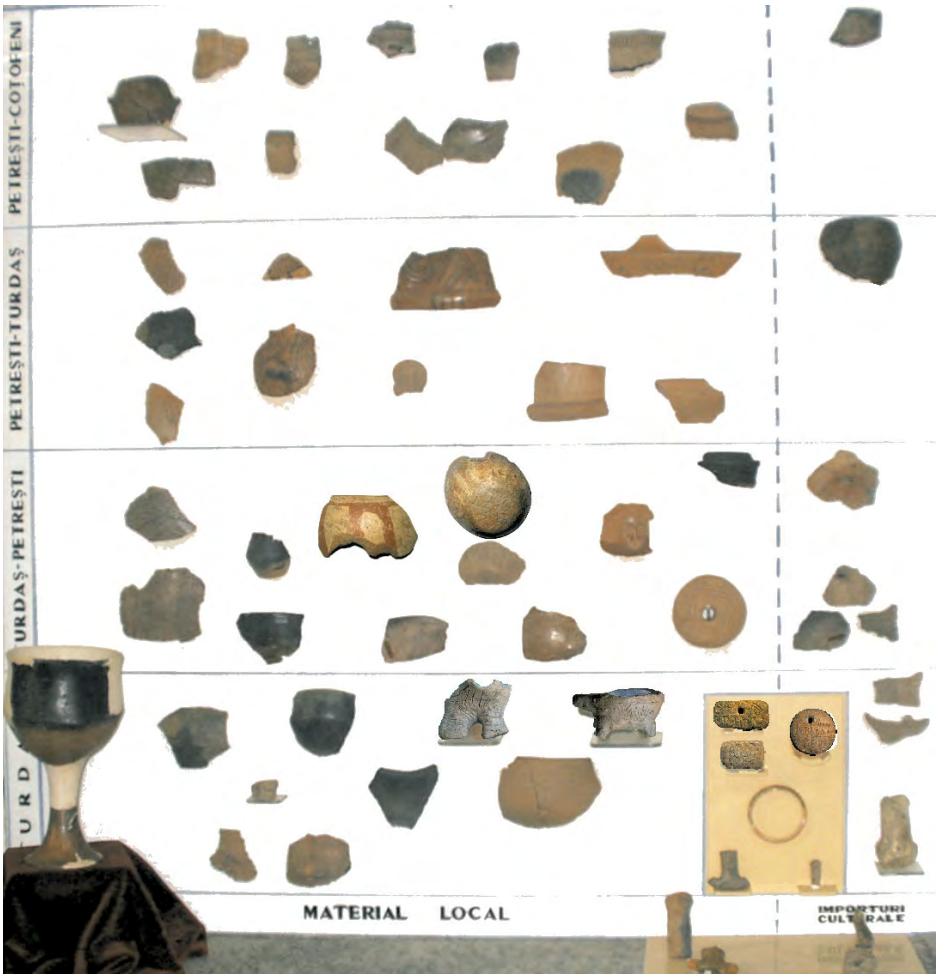


Fig. IV.11. ▲ a) Absolute chronology of the period; ▼ b) fragments from Tărtăria, N. Vlassa's Table.



Some observations regarding the relative chronology can be made on the basis of a qualitative study of the ceramics combined with some stratigraphic data, partially commented in other chapters (Chapter II, III).

The pot lip type AP is present in pit houses at Gura Baciului from SC IC until SC II[114].

[114] In Pit house B20 and pit G24 : Lazarovici Gh., Maxim Zoia 1995, PC, IX/1–3, 6.

QUALITATIVE ANALYSES, VINČA

The closest discoveries are those from the sites Limba – *Bordane,* Șeușa, Ocna Sibiului[115], and Miercurea Sibiului[116]. For the last site, there are radiocarbon data that date the beginning of the habitation in the area around 6000 CAL BC (see more details in Chapter XII). The Tărtăria discoveries have no chronological connection with the Vinča habitation, belonging to Starčevo-Criș II. The place was suitable for a small community, as suggested by the scarce material discovered here. These fragments prove sporadic habitations by small communities.

Vinča A pottery

Fig. IV.12a. Tărtăria, Vinča A1–A2 pottery in pit house B4, Section B (our mark).

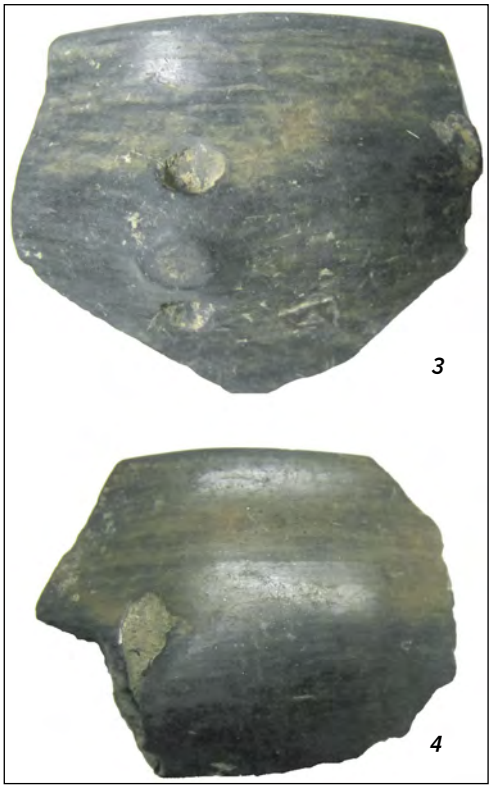


Fig. IV.12b. Gornea, Vinča A1 pottery in pit houses: 3) B21b; 4) B13.

From Section B, there are two black ceramic fragments. One has a silver color luster and belongs to a bowl with a right lip, without decoration and missing a handle. The second fragment is from a pot made of fine clay, decorated with fine edgewise channels (pleating).

This type of fragment (bowls without decoration and with a silver color luster), made using similar technologies, appear at Gornea in pit houses belonging to Vinča A1–A2 phase (B21b, B15). These fragments and the three radiocarbon data, especially the ones related with *Milady Tărtăria,* indicate a habitation starting around this time.

Vinča A materials from other sections are not so early: two bitronconic bowls with a short upper part and an amphora fragment (black paste) come from Sections D and F.

The dotted band (**fig. IV.13.3, 14.2**) is characteristic starting with Vinča A3 phases (especially on amphora and lids) and persisted for some time.

Several ceramic fragments come from the bottom of the cultural layer in the area of Surface G and from the pit house from –3.20 m depth. They belong mainly to bowls related with the Vinča A level. Fragments from Surface G, two bowls and stand cup legs belong to the Vinča A3 phase. Zau culture imports appear at this level.

[115] Ocna Sibiului: Ciută M. 2005, p. 185, pl. XL/1–2; 2002, Limba-*Bordane* pl. XCIV/10; Șeușa pl. XCIV/10–13.

[116] arheologie.ulbsibiu.ro/radiocarbon/2007 10 Jan. data.htm: **(ID Date) 2273** Starčevo-Criș IB-IC Miercurea Sibiului *Petriș* Ro GrN–28520 7050 ±70BP, B10 / 2003, level Ia; **2274** Starčevo-Criș Miercurea Sibiului *Petriș* Ro GrN–29954, 29954, 7010 ±40 BP, G26 / 2005, level 1, Ritual pit; **2272** Starčevo-Criș IC-IIA Miercurea Sibiului *Petriș*, Ro, GrN–28521, 6920±70 BP, B1 / 2003, level Ib, Luca S. A. et al. 2006, p. 17.

Biconic bowl shapes are characteristic for this period. Below are listed the main types:

- Tărtăria fig. IV.14/a1 = analogies at: Schier 1995.1, **Type S38.4**; Schier 1995.2 **Vinča** inv. 2447; ▼ 9.3 m 29/1564 ▼ **9.2 m** pl. 15/1693; 17/1953; ▼ **9.1 m** 39/1717, 40/1727, 43/1715; S31.4 (Vinča 2220); **Gornea,** Lazarovici Gh. 1977: **B15** pl. XLV/5, 12; **B9** pl. XXXV/4, 9, 11; **B8,** unpublished MNIT sample; **P2** pl. XLVI/12.
- Tărtăria fig. IV.14/a2 = Gornea ***B85Z*** = Schier 1995.1 **S 31.3**; **S 29.2** (Vinča 1831) ... S29.2; Schier 1995.2; ▼ **9.3 m, Pit Z,** 7/3229; ▼ 9.2 m pl. 16/1919; **Pit T** pl. 21/1484; ▼8.5 m 89/227.
- Tărtăria fig. IV.14/b2 = Gornea ***type B81a*** **P2,** Lazarovici Gh. 1977, XLVII/8; B7 unpublished = Schier 1995.1 **S37.1**; Schier 1995.2, 9,3m, Basis, pl. 29;
- Tărtăria fig. IV.14b1 = Gornea ***Bad4y*** = Schier 1995.1 **S 136.2 Vinča 1372;**
- Tărtăria fig. IV.12.1, 4 = Gornea B85YL, Lazarovici Gh. 1977, **B15**, XL/5 = Schier 1995.1 **S31.4**, Vinča 2220; Schier 1995.2 ▼ 9.2 m pl. 16/2952; ▼ 9.1 m pl. 36/1634; ▼ 9.1 m pl. 44/1718; **Pit T.**

Fig. IV.13. Vinča A3 pottery: 1–2) Section D; 3–4) Section F; 5–6) after N. Vlassa.

The analogies presented above, through their synchronisms with Gornea and Vinča sites, indicate the evident synchronisms of Vinča A phase from A1/A2 until Vinča A3 (house P, T complexes and others at Vinča).

The same codes can be specified for the materials recently published by Iuliu Paul[117] who, while reanalyzing the Tărtăria discoveries, defines them as Vinča A1 – A2, in particular the levels with pit houses and their fillings.

Fig. IV.14. Tărtăria, Vinča A3 pottery: a) Surface G –1.2–1.4 m; b) 3,2 m; c–d) 1.20 m.

Coding systems are not unitary since some are based on our codifications, others on those of W. Schier. Nevertheless, in our database their correspondences are mentioned, too. Cup legs are not very representative for the shape of the materials as most of them are fragmentary. Their paste corroborated with the

[117] Paul I. 2007, ms. p. 28–29.

shapes allows more evident and diverse classifications and affiliations. Some of them have been included in our databases.

Based on their variations, cup legs present analogies with the Gornea site (fig. IV.3–4), from level Vinča A1 until A3[118], and with the Vinča site in phase A[119].

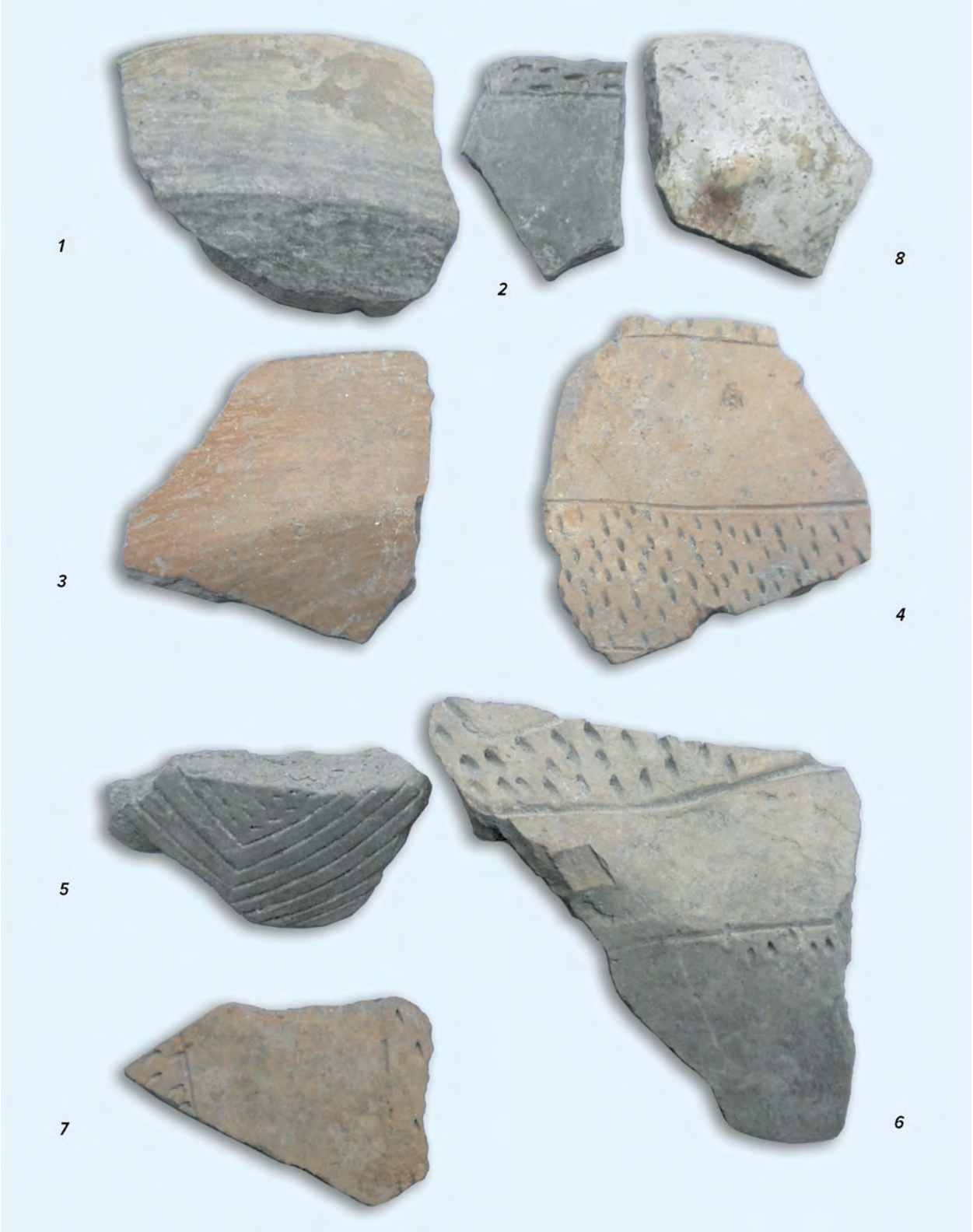


Fig. IV.15a. Tărtăria, Surface G, –1.20 m, Vinča A3–B1 level; 8 Zau culture.

[118] Lazarovici Gh. 1977, pl. 35.
[119] Schier W. 1995.2, Pit W, pl. 60/1463.

The above mentioned cup legs present analogies with the Vinča site, phase A from ▼ 9.3 m until pit **M**[120]. An import of Zau culture have been discovered at –1.2 m at Tărtăria site (fig. IV.15a/8).

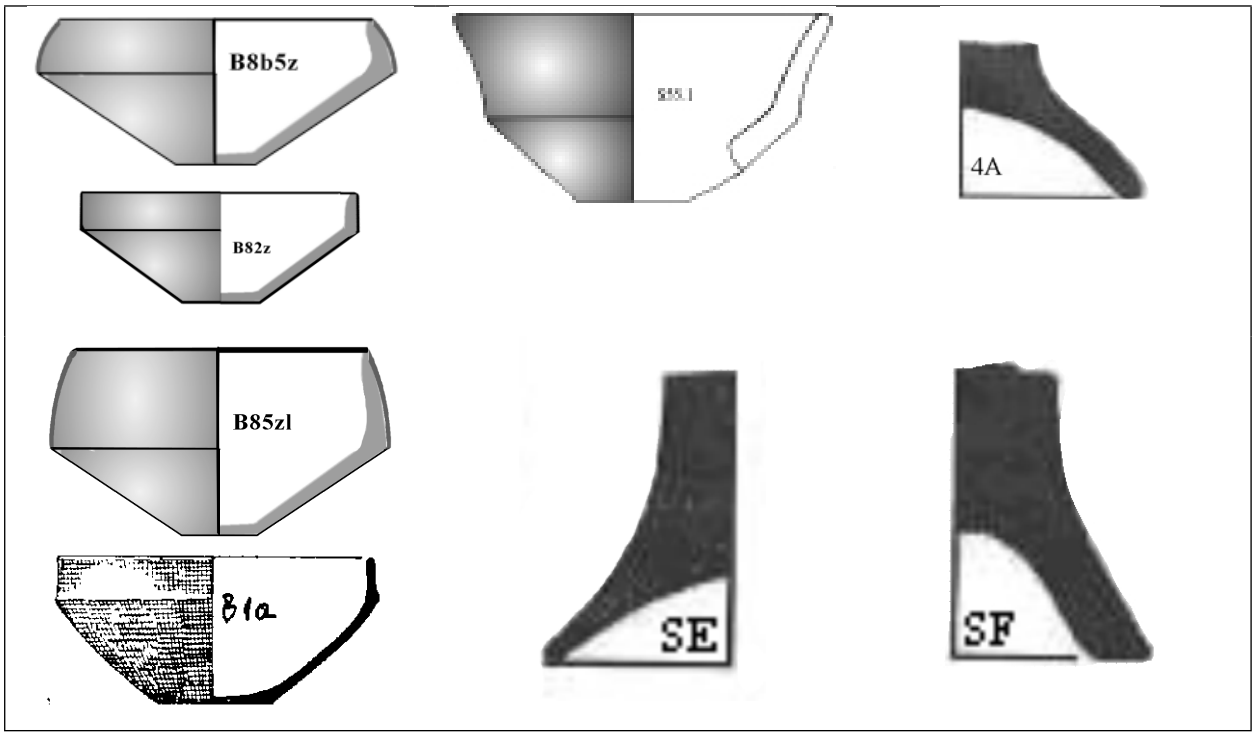
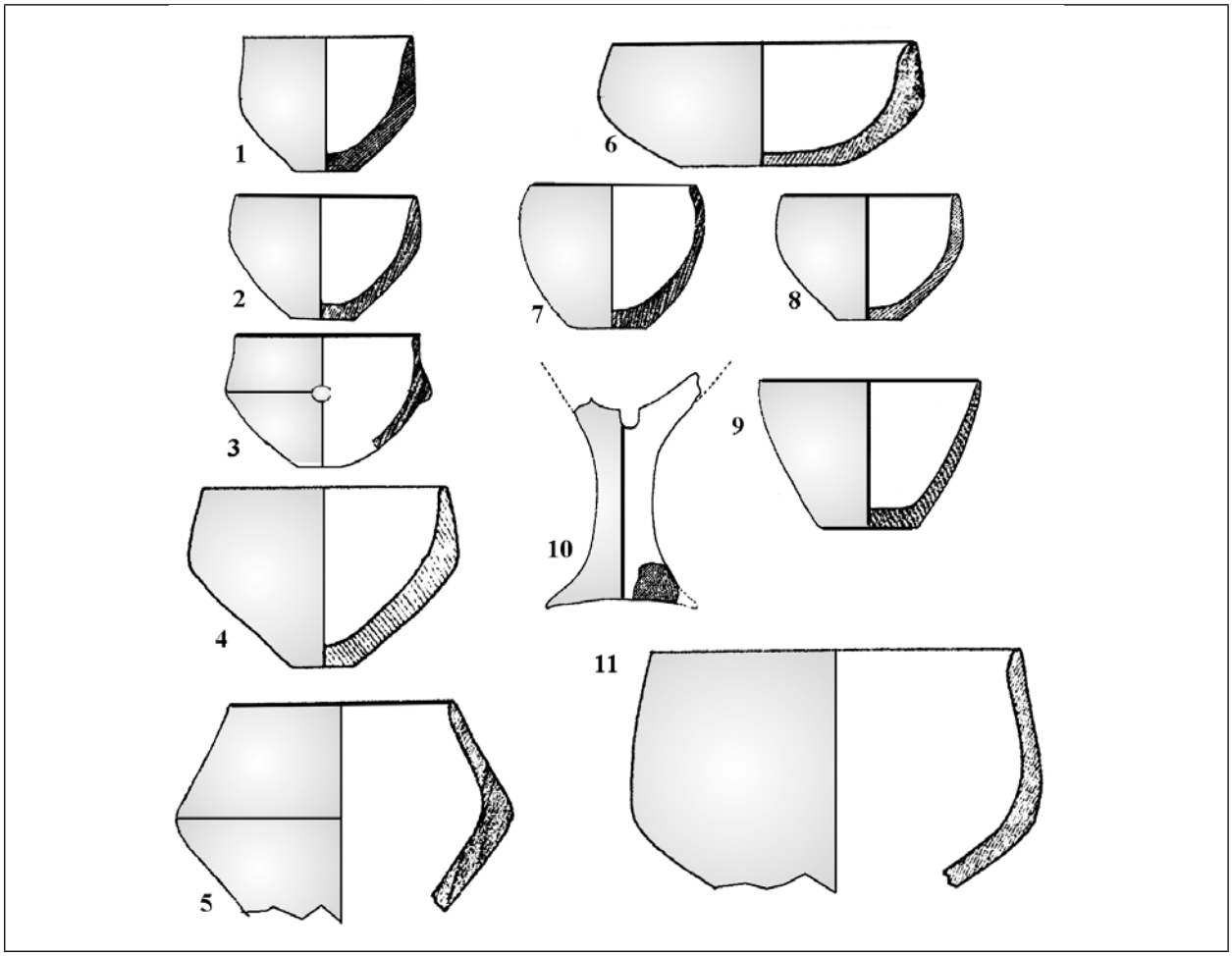


Fig. IV.15b. ▲ Types of stand pots legs (Sibiu code); Fig. IV.15c. ▼ Vinča A pottery, after I. Paul.



[120] Schier W. 1995.2, pl. 33/1602, 56/1854–1855; 60/1463; 68/ 1344.

We have been able to make some seriations based on the codification made by our colleagues from Sibiu for a lot of materials identified with precise data. In the next table, we have extracted from the database information regarding materials (category, color, mixture, smoothing, and firing) from Tărtăria (lower levels and pit houses) and Miercurea Sibiului (pit houses) sites.

	Tărtăria Sec. H; h16 B2	Mierc Sib G11	Mierc Sib B8	Tărtăria Su. A III 0.60m	Mierc Sib G8	Mierc Sib B4
2;U;1;3;1	3	1	2			
3;A;2;1;5	2		1		2	2
1;B;3;3;3		6	1	1	1	
1;F;3;6;5			2	1		
2;A;1;3;1		1			1	
1;F;3;6;1			4			2
1;U;3;3;1			2	1		1
1;E;3;6;1			2		1	1
3;A;2;1;1		2			5	2
2;H;1;3;1			1	1	1	1
2;F;1;1;1		1	1		1	3
3;G;2;1;1		3	5		1	13
1;E;U;3;1					2	
1;B;3;3;1		1	1	1	3	4
2;G;1;3;1		1	1		1	4
3;F;2;3;1			1		1	2
1;O;3;6;1			1			2
3;F;2;1;1			4		6	10
1;B;3;6;3			1			3
1;E;3;4;1			2		1	8
2;G;1;1;1		1			2	7
3;O;2;1;1		1	2	1	4	19
1;B;3;4;3			1			5
3;O;2;3;1					1	2
2;O;1;3;1					2	4
1;B;3;6;1				1		9

Fig. IV.16a. Extraction from Database.

	Mierc Sib L15	Mierc Sib L13	Tărtăria Surface A V 0.60m	Tărtăria Surface A II 0.60m	Tărtăria Surface A III 0.60m
2;N;1;3;1	2				
1;B;W;6;3	2	1			
1;E;U;6;1	3	4			
1;U;U;6;2	2	3			
1;H;U;6;2	2	6			
1;B;U;6;2	1	4			
1;U;U;6;4		7			
1;H;3;6;1	1	10		1	
1;B;3;6;1	2	4		1	
1;E;U;6;5		4	1		
1;H;U;6;3		7		1	
1;B;U;6;1	1	3		1	
1;E;U;6;6		2	2		
1;B;U;6;3	1	3	1		1
1;U;U;6;5		3	1		1
2;H;1;3;1	1	1	1		1
1;F;U;6;5		3	1	1	1
1;H;3;6;3		2		2	
1;B;U;6;4		2		1	2
1;F;U;6;6		1		3	1
2;E;1;3;5				2	
1;F;U;6;1					2

Fig. IV.16b. Seriation.

Through the same extraction, we have selected materials discovered at Tărtăria about which we have no information regarding their affiliation to a specific complex (therefore we seriate them based on the main ceramic characteristics). The series shows a big mixture, as well as a late affiliation to the Vinča B1-B2 level.

The table also shows a weak correlation of the Tărtăria materials, which were selected at random. At the head of the series are materials from B2 at Tărtăria correlated with the ones from B11 and B8. The materials in Vinča A-B1 level, and especially the ones from B1 correlate with pit houses at Miercurea Sibiului.

For the tables' codes one can fallow Annex 4 (first field category, second field color, third field mixture, fourth field smoothing, and fifth field firing).

The series indicate other earlier materials at 0.60 m, and correlations with pit G11 at Miercurea Sibiului. The horizon with Vinča A3–B1 materials can be framed between **B8**, **G8** and **B4**. The five characteristics are based on a lot that contains over 3700 fragments from both sites.

In establishing correlations, the number of fragments did not play the largest role, but their resemblance, being selected. All complexes had between 0.4% and 4%: **B8** 39 fragments 1%, **G11** 18 fragments

0.4%, **G8** 40 fragments 1%, only **B4** had 155 fragments representing 4.1 %. **Complex B8,** a larger complex was severely affected by the later ones[121] which explain the association of the Tărtăria materials, which were also mixed.

The large spread of the Tărtăria materials is related with their selection during excavations, and the selection of materials with few characteristics (missing of shape, decoration etc.). The first column is ordered as following: category, color, mixture, smoothing, firing.

Materials from the upper levels that were not mixed with Petrești ones, or less mixed, have been extracted in a separate table. This table shows the correlations and the later evolution of the Tărtăria pottery in comparison with the one from the houses at Miercurea Sibiului. We have selected the best correlated materials, as there are several identical materials that do not disturb the series.

Vinča B pottery. Quantitative study

The strength of the correlations is based on the five characteristics that can be observed for each category (everyday and semi-fine pottery) in each row. For sure, there are many other correlations, but the optimum is given by this model. Vinča B1/B2, B2 pottery at Tărtăria is difficult to analyze, because the stratigraphic observations are missing. The depth criterion is not very significant because on all profiles (but especially on I. Paul's ones) a heavy mixture of archaeological materials can be observed. This mixture is related to the intensive building activity during Petrești and Vinča B levels: four-five pit houses, six Vinča B houses, seven Petrești houses and more than five-six pits. House L15 has 28 fragments 0.7%, L13 176 fragments 4.7%, TV 0.60 m 19 fragments 0.5%, T II 0.60 m 27 fragments 0.73% and T III 0.60 m 0.45%. The above noted links show a tight correlation related mainly to the resemblance of the materials and not their numbers, which is a good argument for cultural affinities and possibly chronological ones, too. Because the material was sorted, it is not possible to establish further chronological or cultural links.

In order to check whether the correlations between Tărtăria and Miercurea Sibiului are random or not, we have also selected complexes from Balta Sărată and Tărtăria, resulting 125 lines with complexes. However, these are not correlated with the Tărtăria ones, excepting some related with Vinča A phase, representing under 0.1%.

The evident conclusion is that in southern Transylvania, after Vinča A, a local evolution took place. In our calculations we have not introduced a common element, cup legs, characteristic of Vinča culture; our codifications on both sites were made using slightly different codes. During selection cup legs were usually gathered. On the other hand, in Vinča B their evolution is almost unitary. Maybe with a different occasion they will be selected, too.

Vinča B pottery. Qualitative study

1

2

Fig. IV.17. Tărtăria: 1) Surface A, 0.45–0.65 m; 2) Surface G, 0.45 – 0.65 m, Section H, h6, 0.90–1.15 m.

[121] Suciu C. 2009, p. 16.

3–4

5

Fig. IV.17. Tărtăria: 3–5) Surface A, 0.90–1.15 m; 6–7) Surface E ; 8–9) Section H, h6, 0.90–1.15 m. □ 6 or Section H, h4, 0.45–0.65 m.

6–7

8–9

1–2

3–4

Fig. IV.18. Tărtăria: Section H, 1) Vinča B, 2) Turdaş, 3–4) Surface G, h6, 0.90–1.15 m, Vinča A–B1.

The transition to Vinča B phase is not evident, since it was a local evolution, without links with the Serbian areas at Vinča, or in Banat. The plastic of Vinča B1 phase is not represented by idols with pentagonal mask from Vinča and idols with triangular face from Vinča A, and polychromy persists. This situation suggests southern influences through the Olt Valley and farther south[122].

Cup legs maintain the characteristics of Vinča A since they are fired in the *blacktopped* technique or painted with red to imitate it. The red painting technique (fig. IV.18.1.19.1–2, 20.3) is, in fact, an *engobe* and not a slip. The slip is not characteristic for Vinča culture, because the mineral mixture does not need to be covered with slip. The slip is used frequently in case of ceramic with organic material. The paste of the cup legs was easy to smooth, glaze and polish, all characteristics of the Vinča culture during the A phases.

Fig. IV.19. Section H: 1) Section H; 2) Surface G or Section H, h4, 0.45–0.65 m.

Fig. IV.20. Vinča A3–B: Section H, h4 0.60–0.80 m.

One fragment has an orifice with collar (fig. IV.17.2), but its shape and functionality are uncertain.

Cup legs from the Vinča A phase have many variations but they are still relatively easy to identify. Unlike them, the short legs from lower cups from phase B are not fired in *blacktopped* technique.

They were homogeneously fired, the legs are massive, the bases wider and sometimes the base is thickened as a ring (fig. IV.19.2). Red *engobe,* which is secondarily fired, has a brown or dark cherry color (fig. IV.19.3). The low and larger type of cup leg (fig. IV.20.4) seems to belong to a later phase.

The evolution from Vinča A to the B phase seems uninterrupted and is marked by the presence of some Vinča A shapes in the B phase, without an evident "transition".

[122] Suciu C. 2009, p. 20 ff.

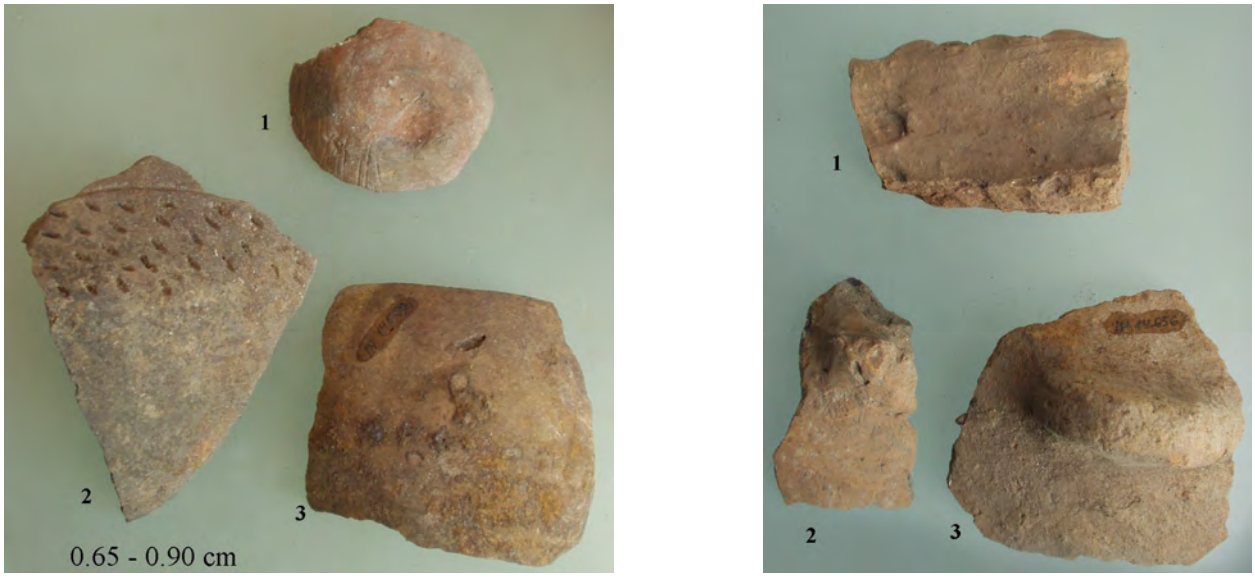


Fig. IV.21: a) Surface A, 0.65–0.90 m; b) Section H or Surface G, h6, 0.90–1.15 m.

Fig. IV.22. Surface A, 0.90–1.15 m.

Fig. IV.23. Surface G, h4, 0.60–0.80 m.

Among such shapes are the biconic bowls with a raised upper part and a black-ash paste, elements of the Vinča A phase (fig. IV.21.3), while bowls with a brown paste and rounded shoulders are characteristic of the Vinča B stage. Dotted meandered or triangular bands persist for a long time, but because of their smaller number it is not possible to use them for analyses (fig. IV.20.4; 21.1–2, 23.2). Such ornaments have been discovered in the sections made by K. Horedt, N. Vlassa and I. Paul (fig. IV.24). Pleating and polished lines are also present (fig. IV.22/1, 4).

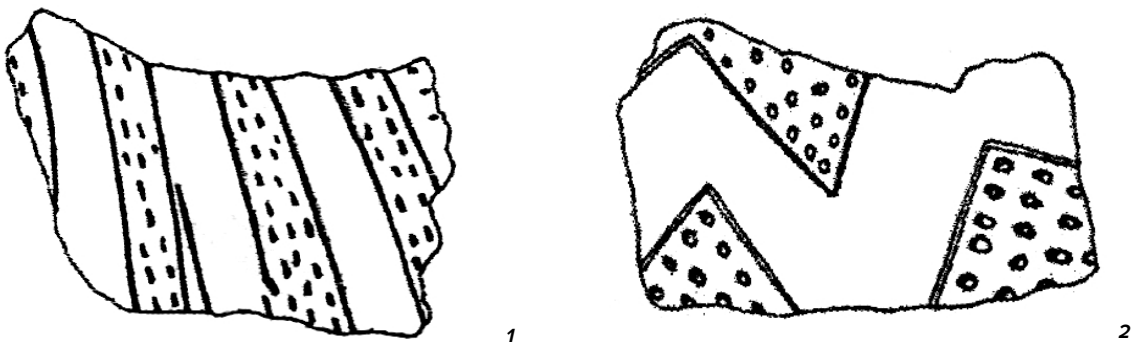


Fig. IV.24. Pottery from I. Paul sections: 1) Vinča B; 2) Vinča B or Turdaș.

Lobe ornaments made with the finger on everyday ceramics are characteristic for both Vinča A and B phases (fig. IV.19.1).

One of the more special pieces is a pot whose bottom has an *umbo* (a small lobe decorated with incisions that descend to the bottom). Because of its strong secondary firing it is not possible to attribute it to a specific stage (fig. IV.23). Another distinct fragment is a sort of a pan with a lobed lip (fig. IV.21.1).

There are also fragments difficult to attribute to either Vinča A or B phases because of their brown sandy paste and weak firing (fig. IV.23.2; 25.2), characteristic of Vinča A3 in southern Hungary[123]. We will no longer insist on the chronological frames because the stratigraphic observations are very vague and the digging levels are penetrated by pits, as already mentioned. We did not have access to all the materials from I. Paul's researches.

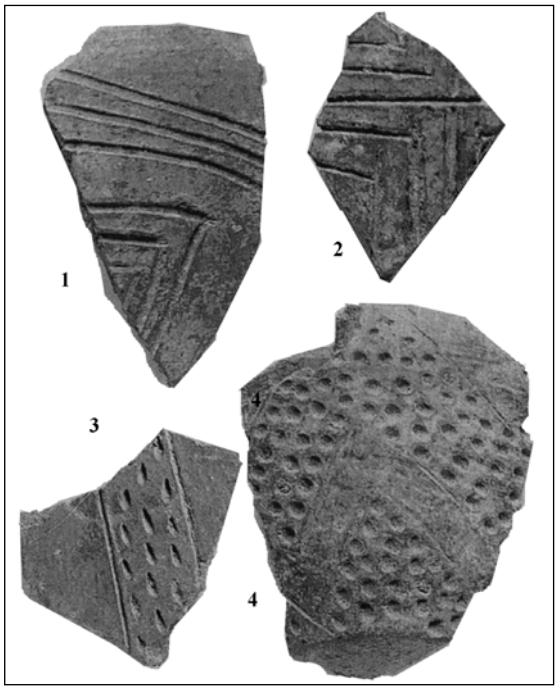


Fig. IV.25. Turdaș pottery at Tărtăria.

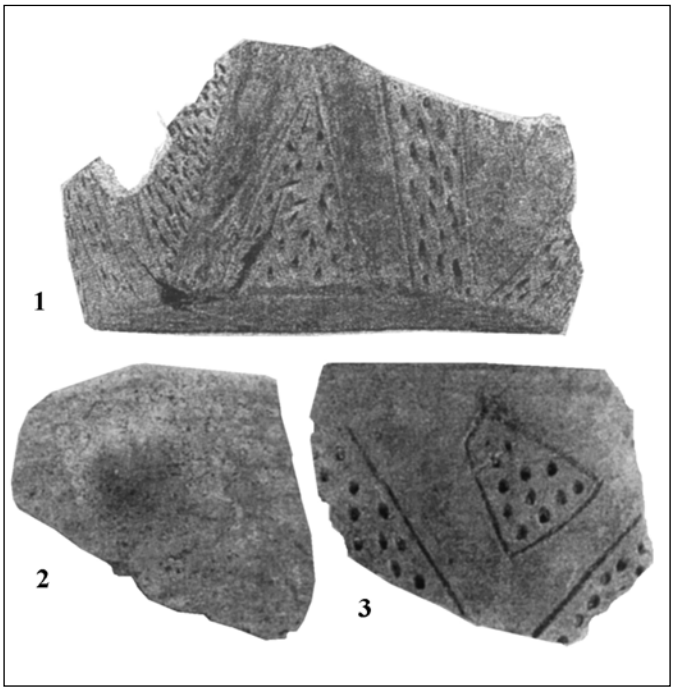


Fig. IV.26. Turdaș pottery at Tărtăria.

His premature death has stopped the new proposed projects, and our intentions to restart excavations at Tărtăria. Moreover, we did not have the permission and possibility to see materials from the site, except for one year when together with Academic Bogdan Brukner we studied materials from the section supervised by I. Al. Aldea, but without documentation. Among the published materials some are typical for Vinča B1 phase (fig. IV.24.1).

VINČA C – TURDAȘ POTTERY (fig. IV.25–27)

According to I. Paul's report there is a Vinča B2–C horizon, with surface houses, in which Vinča B2, and Vinča B2/C – Lumea Nouă pottery appears[124].

Published materials prove the existence of two painted categories, also present in N. Vlassa's levels, as well as a hachured painted band category with vertical lines.

In Vlassa's research some of them appeared in a Vinča B1 level (marked as Turdaș – Petrești)[125].

The materials we have studied suggest a possible Turdaș habitation (in the meaning of a Late Neolithic culture, see Chapter II).

Iuliu Paul has published some fragments which exhibit a clear Turdaș structure, which he attributed to Lumea Nouă, with which they are contemporary. In fact, they are three quadrilateral shaped pots marking a sporadic Turdaș habitation or a horizon with imports. Such materials are scarce in the

[123] Approximate with those from Ószentiván VIII.

[124] Paul I. 2007, ms. p. 28.

[125] I. Paul 2007, p. 29, says that terminology used by N. Vlassa for Tărtăria stratigraphy "represent just a mechanic, artificial translation of the preliminary stratigraphy at Răhău – *Dealul Șipotelor*". Verifying I. Paul's notes in *MCA* IX, we see that they are from 1970, and an article published by N. Vlassa in *Apulum* VI is from 1967, so it is quite evident that N. Vlassa published in 1962 and 1963 the first stratigraphic data regarding Tărtăria.

other surfaces, previously excavated. One of the fragments has red paint over a dotted band (fig. IV.26.1) and was considered a Szakálhát import, but is specific for the early Turdaș phase. Such fragments have also appeared at Vršac – *At*, Serbia in the western Banat, in eastern Banat at Sălbăgelu Vechi[126], Turdaș and Tăulaș[127].

a

b

Fig. IV.27. Turdaș pottery at Tărtăria: a) "box V"; b) Section B; c) Section H –0.90 m.

c

Among mixed materials, in box no. V (as provenance is mentioned only Tărtăria) there are two ceramic fragments with a Turdaș paste and decoration (fig. IV.27a) belonging to a quadrilateral pot and to a similar quadrilateral pot with wide dots or, possibly, a cult table (fig. IV.27b). A small pot decorated with fine pleating from Section H belongs to the same stage (fig. IV.27c). Specific for Vinča B2–C stage is the mixing of the paste with sand and mica.

Three ceramic fragments of very good Turdaș I structure have been found in Section B area. Here a defensive ditch was rebuilt at post Vinča B level and before the Petrești one. The fragments have short wide cuttings, not organized in bands. A similar piece is the leg of a big idol or of a cup decorated with dots made from Turdaș paste.

IMPORTS AND CULTURAL LINKS

The correct and clear definition of cultural imports is very important, as it points towards ethno-cultural contacts: economic exchanges and social relations. The farmer's notion of "market" is wider than its medieval meaning. In each geographical area, there are still places where markets are organized each week, month, trimester, annually or in relation to fixed festivities.

At these markets materials and products were exchanged, product exchanges took place between mountain and plain areas, between different geographical areas or provinces; there were markets for matchmaking (Găina Mountain), and others. Exchanges did not bring only products but also spouses

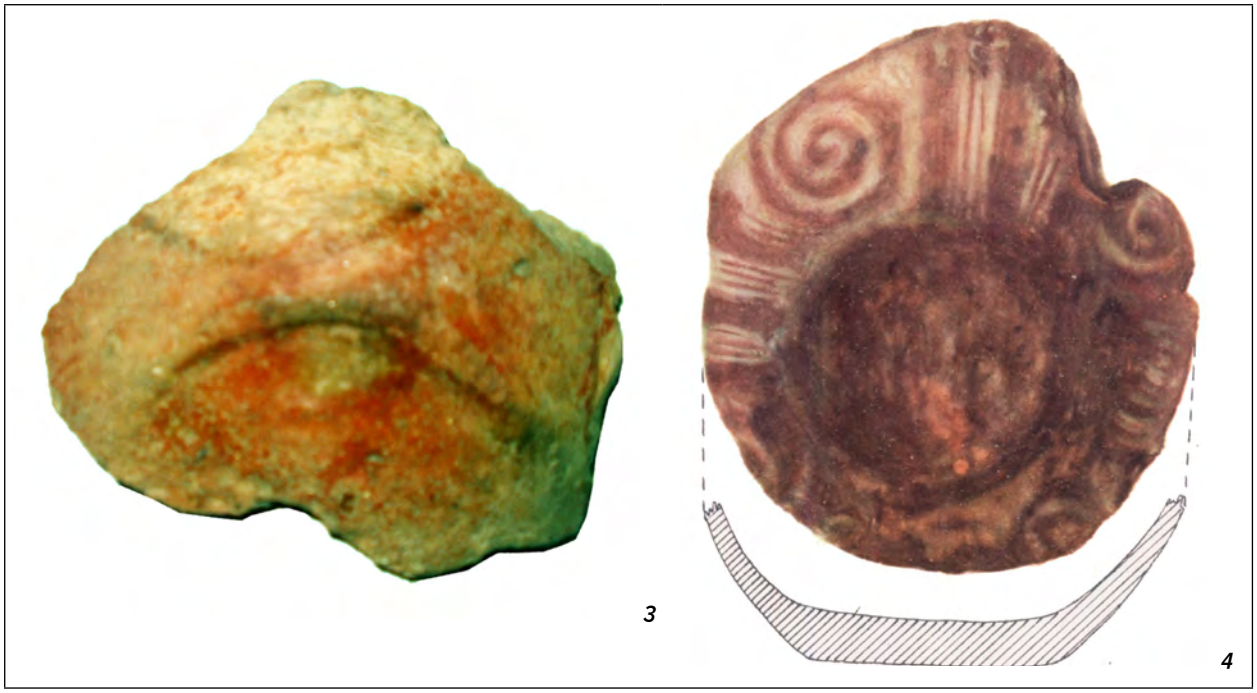
[126] Lazarovici Gh. 199, p. 23.
[127] Dumitrescu Hortensia 1984; Dumitrescu Hortensia, Lazarovici Gh. 1985.

with their trousseau, as well as customs or technologies. This take on the market helps us understand better ethno-cultural relations.

Zau imports

In the archaeological literature, the Lumea Nouă term is used to describe a sort of painted pottery, first defined by D. Berciu, and representing the persistence of Criș painting in Vinča – Turdaș[128]. Researchers, from M. Roska[129] to Mihai Gligor, have used several other terms to describe this type of pottery[130].

Fig. IV.28. Tărtăria IIb: Zau culture, IIA phase.



The list is quite long and the different names used were mainly based on few fragments coupled with the existing knowledge about the superposing of various cultures or cultural groups.

Some of the materials presented above have been published under different names reflecting the archaeological stage of the research and excavations.

The terms used included complexes, cultural groups, cultural aspects, a. s. o. In many cases the use of particular terms is related to the lack of information and straightforward investigations and excavations, the partial publication of archaeological materials, and archaeological contexts.

[128] Berciu D. 1961, analyzes terms and problems; Lazarovici Gh. 1977b; 1981; 1987a.

[129] Roska M. 1941, map VII; 1943.

[130] Gligor M. 2007a; 2009, p. 64 ff., 136 ff.

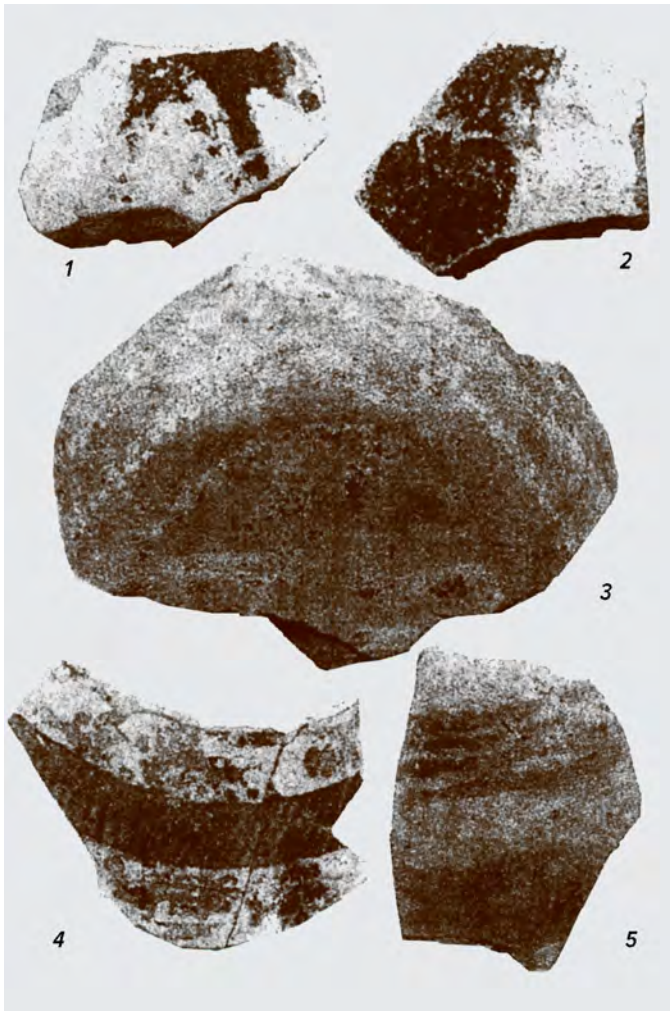


Fig. IV. 29a. Tărtăria, Zau II pottery from I. Paul's excavations.

Fig. IV.29b. Tărtăria: 1) Zau I pottery from pit house B1 (after Horedt 1949, p. 53); 2) from N. Vlassa's excavations.

As other colleagues, we have also used for a long time different terms for some of the Tărtăria materials, such as: Tăulaș, painted Turdaș, painted pottery species D, Tărtăria – Tăulaș, Lumea Nouă, Lumea – Nouă – Cheile Turzii, Cluj – Cheile Turzii, Cluj – Cheile Turzii – Iclod; Cluj – Cheile Turzii – Iclod – Suplac, Cluj – Cheile Turzii – Iclod – Suplac – Zau, Cheile Turzii – Pericei.

The earliest materials of this type are noticed in a Vinča A2–A3 horizon at Limba. At Tărtăria they appear in the Vinča A3 level (respectively –1.40 m).

Based on excavations made at Zau de Câmpie, we have defined the Zau culture, its evolution in phases, space, and time[131]. The site is located in Central Transylvania, in the waved Plain of Transylvania and the Transylvanian Plateau. The main characteristic of the Zau culture is the painting on the background of the pot or on a white or red slip background, or on a red or white *engobe* (or on a cream color resulted from the oxidation process). The colors used for painting are: red, dark red, black, dark cherry, brown. Mineral material has also been used for painting and only rarely bitumen and different motives.

Situated at the margin of the Vinča phenomenon and similar to other civilizations in the neighborhood, the Zau culture has retained from the previous Early Neolithic background, the use of organic mixture (in Romania Dudești – Vinča in the south, Dudești in southeast, Linear band pottery culture in the east and north, Tiszadob – Pișcolt, Szakálhát, Banat culture, and others). Part of the painted pottery in the Zau culture, especially in its oldest phases, has a paste mixed with organic materials (with very fine chaff and silt with organic restidue). Cups with full legs do not appear in the Zau culture. The Zau cups have a large empty leg, often short (fig. IV.31.a2). *Engobe* is sometimes missing, especially when the paste is mixed with too much silt (fig. IV.31.b4).

[131] Lazarovici Gh. 2000; 2009; Lazarovici Gh. et al. 2000; 2002a.

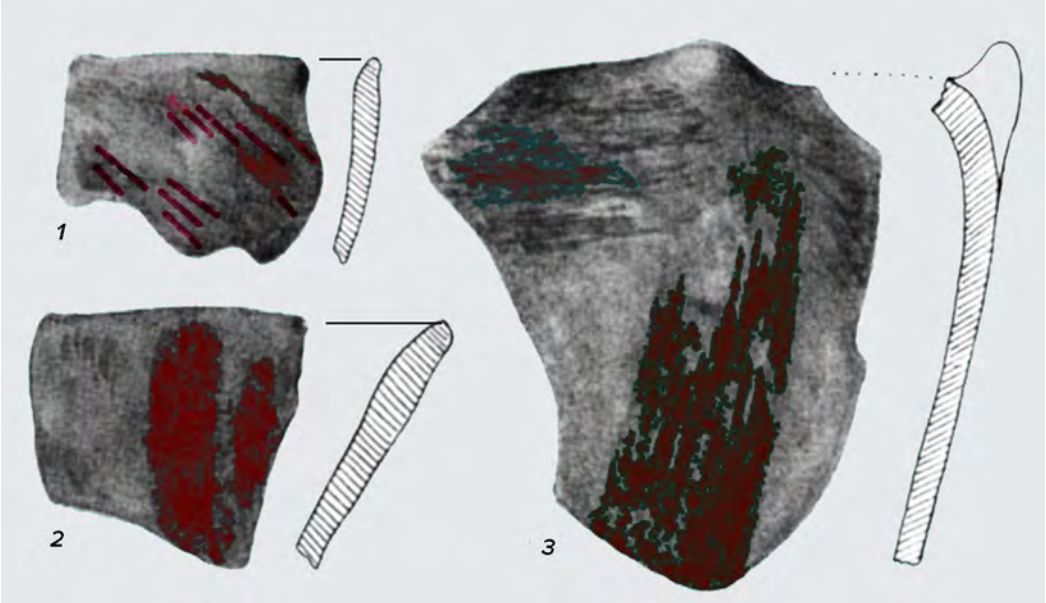


Fig. IV. 30. Tărtăria, Zau IIa–b pottery: 1–5, after N. Vlassa 1963, fig. 4.

4

5

N. Vlassa has published some very interesting ceramic fragments, found in the upper part of his second level (that is, Vinča B1-B2 levels). They were painted with dark colors, especially black and dark red on the background of the pot. Very important is their stratigraphic position, in the upper part of the ***Turdaș – Petrești*** layer. N. Vlassa argued that the bands incised with lines were an imitation of the *Turdaș* motifs. The fragment in fig. IV.30.5 belongs to a cup, but sadly the shape of the leg is unclear and the painting has not preserved well.

a) 1–2 ▲, b) 1–4▼

Fig. IV.31. Tărtăria, Zau culture, III phase.

S. M. Colesniuc's PhD thesis, *Pottery and tools of the cultural complex Cluj – Cheile Turzii – Lumea Nouă – Iclod – Suplac* (Sibiu 2008, Zau culture now), analyzes various aspects and materials, some unpublished, some only summarily published or just mentioned.

A high percentage of the painting was done on the pot's white background by using different colors and styles, varying from one phase to the other, but maintaining the common characteristics. Typical for this culture are the large cups inherited from polychromy.

Except for the above presented materials, there may be another dozen, but it represents less than 1% from all the Tărtăria pottery. N. Vlassa ascribes some ceramic materials to this horizon, in particular, two-three ceramic fragments with red *engobe*.

There are good chances to confuse such materials with Vinča ones (fig. IV.30.5), at least for the ones related with Miercurea Sibiului.

Based on the levels at which such materials appear, all of them are older and belong to the Zau culture II phase, some to IIA phase, while some motifs (such as the wide black bands) persist until the Zau III stage. Nevertheless, clear stratigraphic conditions and data regarding the technology and the materials' associations are needed in order to have a better classification.

As already mentioned, in more recent studies we have analyzed Zau discoveries and the older terminology used by us and different colleagues. These studies offer clear chronological and cultural relations, the dispersion and characteristics of the Zau culture in phases[132].

Until a monograph about the Zau culture will be published, the mentioned studies and Sorin Colesniuc's thesis elucidate the origin, evolution and relative and absolute chronology of the Zau culture[133].

[132] Colesniuc S. 2008; Lazarovici Gh. 2009.
[133] Colesniuc S. 2008; Lazarovici Gh. 2009; 2010, fig. 2, 7, 8–9 a.s.o.

	Zau Culture CAL BC	Vinča Chronology *Schier Lazarovici*	Connections	Mureș Area	Zau Site levels	Zau stratigraphy, depths, complexes
	5560–5480 CAL BC 5400–5300	**SC ?–Vinča A1/ A2**	SC IIIB Suplac-Lapiș	**Bordane? C14**		
5300 . . 5250 . . 5200 .	**Zau IA 5320–5200 CAL BC** **Zau IB 5300–5200 CAL BC**	**BB Level 3 Vinča A2 5300 Lady 5230 B2** **5300 Sat Chinez A2/A3**	SC IVA Polychromy II Pișcolt IA Porț-Corău inf.; **M5, M16,** Ciumești ? (5300–5200)	**Bordane** GrN–28112	*level 1a* *level 1b* **Ly–8934 5220**	4,64–3,65 m G34 G59 –3.50 m **G57+P9**
. 5100. .	**IC 5250–5150 5250–5050 CAL BC**	**BB 4 A3 –9 –8m**	SC IVB Pișcolt IB Porț-Corău **M7** Morotva A	Lumea Nouă Ia ? Limba *Șesu Orzii*	***2a*** **Ly–8932**	3,60–3,30 m **P8a**, P9
5150 . 5100.	**IIA 5150–5050**	**B1=BB 5a 5150–5000** Tărtăria (Zau imports, wide bands)	Ciumești I ? (5150–5050) Pișcolt IIA GII/1971 Cheile Turzii, P. Binder + others Cluj–P. Unirii I Szakálhát P. Devenț wide bands Porț-Corău **L16** Suplac M1; Corău II.I Tiream	Lumea Nouă IIa	*2b* Zau-*Crypt Grave?*	3,30–2,90 m
5050 . 5000.	**IIB 5050–5000** **IIC 5000 –4950**	**BB 5b B1/B2** Tărtăria (Zau narrow bands) **B2** **B2-C, C1**	Pișcolt IIB Ch. Turzii: P. Binder, P. Ungurească Suplac-Corău I **L1, L2** Iclod Ia **G114** P. Devenț Cluj–str. Brătianu –B. Academiei I, Gilău I, Halmeu Pericei B3, maybe **B6** Doh –*Râturi* Suplac **M7** Vel'ke Raškovce–*Ob. 1*	Lumea Nouă IIb	***2c***	2,90–2,80 m P1-P3, P8, P10 **palisade**

Table IV.32. Table showing Zau culture complexes, stratigraphy, compared stratigraphy, and relations with Tărtăria.

Fig. IV.33: a–b) Tărtăria, Zau culture material, IIA phase ▲.

Fig. IV.33: Tărtăria, Zau culture, imports; c)▲ Banat or Szakálhát cultures; d) ▲ Zau de Câmpie.

Imports from Banat or Szakálhát cultures

Only one fragment from Section H, h3, 45–60 cm might be ascribed to one of two cultures above. We ascribe it to the Banat culture (fig. IV.33c) with whom we are more familiar, but we do not exclude the possibility that it might belong to the Szakálhát culture (fig. IV.33d).

This civilization is located in the lower basin of the Mureș and Crișuri Rivers, which could provide a direct link through the upper Mureș River.

The Banat culture also has links with the central and northern part of eastern Banat through Valea Begheiului to Marginea, and from there through passages to the middle Mureș River basin. Such imports are not surprising since in the middle basin of Mureș, at Zau de Câmpie, there are imports similar to both cultures.

Both communities (Banat or Szakálhát cultures) were looking for salt sources in Transylvania, since the Mureș River was the easiest connecting route. Our option of the Banat culture is based on two reasons: firstly, the paste mixture of both fragments contains sand and less organic material, although even in the Szakálhát culture there are categories with similar mixture and motifs[134]; secondly, from a chronological point of view, at 0.45 m at Tărtăria appear Turdaș materials.

At this chronological moment, Turdaș communities received a component towards Banat (as we have mentioned, the quadrilateral shaped pots, incised specific bands, painting in crusted technique: Vršac – At, Sălbăgel, Homojdia), elements associated to the time of the Banat II culture (a later stage IIC) when there were also imports from Banat and Turdaș cultures at Zorlențu Mare[135].

Notenkopf (Linear pottery culture) imports (fig. IV.34).

Initially, *Notenkopf* and Bükk cultural imports in Transylvania were believed to be earlier[136]. But because such imports appear at Turdaș, they cannot be dated before the early Vinča C[137].

The paste of the Linear pottery fragment found by N. Vlassa in 1961 (the stratigraphic context is unknown, fig. IV.34a) differs from discoveries in Moldova. The fragment we refer to has a Vinča aspect, although little is known from systematic excavations about the aspect of *Notenkopf* materials or of those decorated with *musical notes*. Equally good pottery was found at Gligorești (unpublished, excavations made by Fl. Gogâltan). There is no further information regarding the paste of the Notenkopf ceramic fragment discovered by Iuliu Paul (fig. IV.34a). The shape of the small pot is *Notenkopf*. Similar *Notenkopf* discoveries appear at Turdaș, as well as at Iernut and Gligorești, in the main area of the Mureș River. It is difficult to specify how this pottery has entered and diffused in this area, but the presence of some smoky transparent flint slivers suggests *Carpathian 2* as the raw material source, which would suggest it has entered form the north.

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134 Korek J. 1968, pl. VIII/11, 14, 16, 26 a.s.o.

135 Parța 1945, 0.90–1.10 m: Lazarovici Gh. 1971a, fig. 9/1 la; Zorlențu Mare ; *ibidem*, fig. 9/8–9 ; 1994, pl. 3/4, 5/8, 14; 1991, fig. 6, 23; Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 568–573, fig. IVe.2.

136 Vlassa N. 1959.

137 Lazarovici Gh. 1994; Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 568–573.

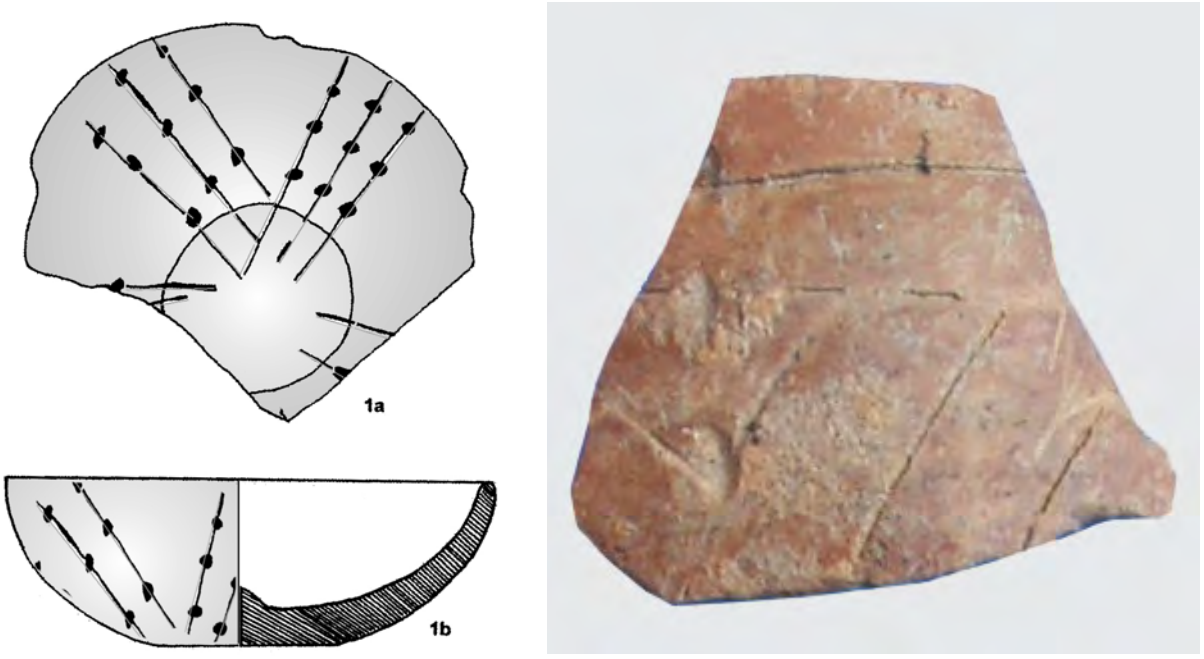


Fig. IV.34. Tărtăria: a) fragmentary small pot from I. Paul's excavations; b) fragment decorated with musical notes from N. Vlassa's excavations.

In the north, Zau III communities extend up to Halmeu Vamă, on today's border with Ukraine, in the historical Maramureș province. These communities are related with the first stage of the Vinča C migration, which in Transylvania is marked by early Turdaș aspects. Such communities could have spread the smoky transparent obsidian of *Carpathian 2* type as well as the black one from Tokaj; they might also be related with the Bükk culture and even with the *musical notes* too (*Notenkopf*). N. Vlassa discovered and mentioned at Cipău an amphorette decorated with *musical notes*. *Notenkopf* discoveries have been noticed in Northern Hungary (at Sárkeresytes – *Péckmaleadomb*, Sukaró – *Tóradülö*)[138].

Bükk imports

Bükk imports in Transylvania are known at Tărtăria[139] and Turdaș[140] (fig. IV.36.2). Imports belonging to phase II are mainly spread in Hungary (at Gava – *Katóhalom*, Miskolc – *Szeleta* and other points, Edelény, etc.) [141].

In Banat, Bükk imports have been discovered at Jđoš, Crnobara[142], Parța[143] and Zorlențu Mare[144]. Similar to the Linear pottery imports, the Bükk ones in Northern and Eastern Pannonia[145], Banat and Transylvania, are linked with the circulation of the obsidian from Tokaj Mountains and Eastern Slovakia.

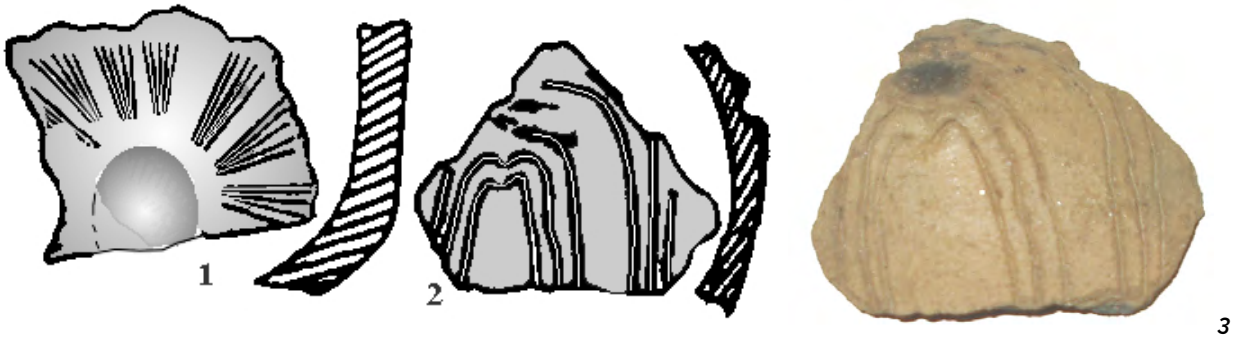


Fig. IV.35. Tărtăria, Bükk pottery: II phase (2, 3) and III phase (1).

[138] Makkay J. 1970, fig. 8, 11, 13.
[139] Vlassa N. 1973, p. 488; 1976; Milojčić Vl. 1965.
[140] Roska M. 1941, XCVI/3; Vlassa N. 1960, 132; 1973, p. 488, n. 6; Milojčić Vl. 1965, p. 263.
[141] Korek J. 1968; Pattay P. 1958 p. 7–8, 26 45, pl. 30/5.6, 13; Lichardus J. 1974.
[142] Milojčić Vl. 1951, p. 118.
[143] Lazarovici Gh. 1979, p. 205, fig. 36.
[144] Lazarovici Gh. 1971, fig. 6/3; analogies at Milojčić Vl. 1949, pl. 35/4.
[145] Tompa F. 1929, pl. IX/12, XXXI/11.

a *b*

Fig. IV.36: a) Cipău, Notenkopf import; b) Turdaș, Bükk import.

Ceramic fragments discovered at Turdaș have been ascribed to the Bükk I–II[146] stage, associated with Zseliz (Zelizovce) materials[147]. The late date of these Bükk discoveries is related to materials from Tăulaș, where there are classic Bükk (Bükk B, after some authors) and Precucuteni[148] materials.

Precucuteni imports (fig. IV.37)

Based on the synoptic table regarding the stratigraphy at Tărtăria and the layers identified, N. Vlassa has published ceramic fragments and other imports. Two of these have a Precucuteni aspect.

1 *2* *3*

Fig. IV.37. Tărtăria, Precucuteni imports.

The fragments are decorated with bands with wide incised lines, traces of inlaid, chess or other incisions on curves with triangular excisions. A lot of Precucuteni imports have been discovered in Transylvania. The paste of such materials is different from that of Vinča ones and their motifs determined N. Vlassa to ascribe them to Precucuteni[149]. Most of the Precucuteni I and II imports are connected mostly with

146 Milojčić Vl. 1951, p. 118.
147 Milojčić Vl. 1951, p. 118, fig. 3, 6, 9, 12; Lichardus J. 1969, p. 26 ff.
148 Dumitrescu Hortensia 1966, p. 422; Lichardus J. 1969, p. 27; 1974.
149 Vlassa N. 1962; 1963.

Turdaș or Petrești surroundings[150] and thirty other sites in Transylvania[151]. Because the level at which such materials appear at Tărtăria is unclear, it is difficult to determine their frame. However, based on their yellow paste, it can argued that they belong to Precucuteni II.

PETREȘTI CULTURE

Petrești pottery, similar to the Vinča one, was selected and sorted. There are some analytical data but because of the sorting process, they are not accurate. Twenty ceramic fragments from Surface A excavated by K. Horedt were kept. Semi-fine pottery prevails in Petrești culture with over 52%, followed by fine pottery with 28%. The everyday pottery is difficult to separate from Vinča materials. Petrești materials dominate between –0.20 –0.60 m. The main colors used are brick, followed by light brown and yellowish. The paste mixture consists of sand, rocky sand and fine clay.

Most of the pottery is smoothed; the painted materials are polished or even varnished. For painting, different shades of red, brown as background or very good quality *engobe* were used.

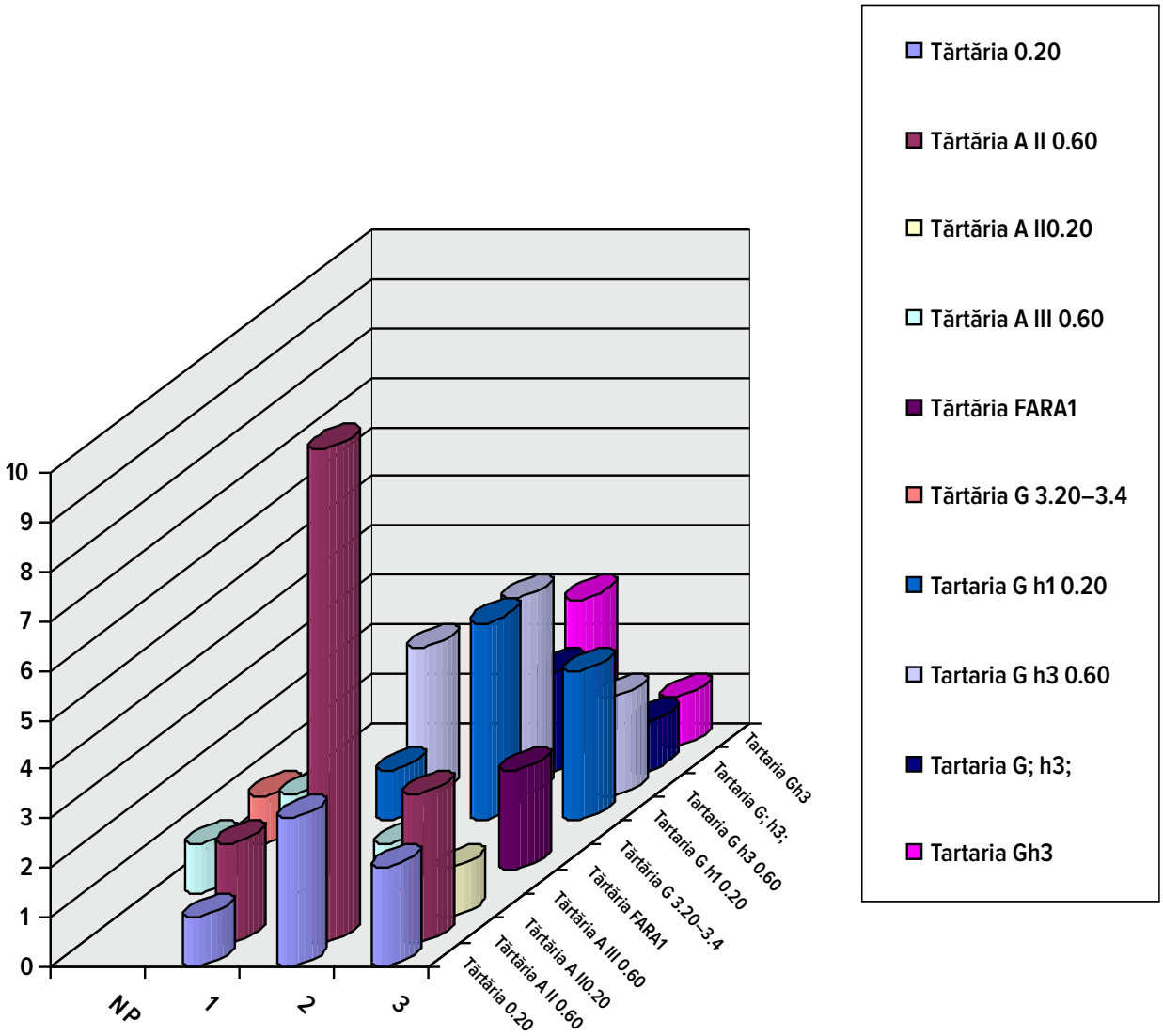


Fig. IV.38. Graphic with pottery categories: 1) usually, 2) semi-fine, 3) fine, NP) unspecified.

Ceramic fragments of black color with thicker shoulder, characteristic for Petrești A stage have been found in several places. Some fragments could be ascribed to the Foeni group but they are not the most characteristic.

[150] Comșa E. 1965, p. 361; Marinescu-Bîlcu Silvia 1974; Gligor M. et al. 2006; Gligor M. 2009, 172; Cornelia-Magda Lazarovici, Lazarovici Gh. 2007, p. 39; Lazarovici Gh., Lazarovici Cornelia-Magda 2010 ms.

[151] Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, **Precucuteni**, p. 16, 17, 21, 33, 35, 37, 39, 40, 41, 61, 81, 142; **Precucuteni I**, p. 16, 33, 35, 37, 39, 40, 41, 61; Gligor M. 2009, s.v. Precucuteni.

Fig. IV.39a–b ▲. Southern imports at Alba Iulia.

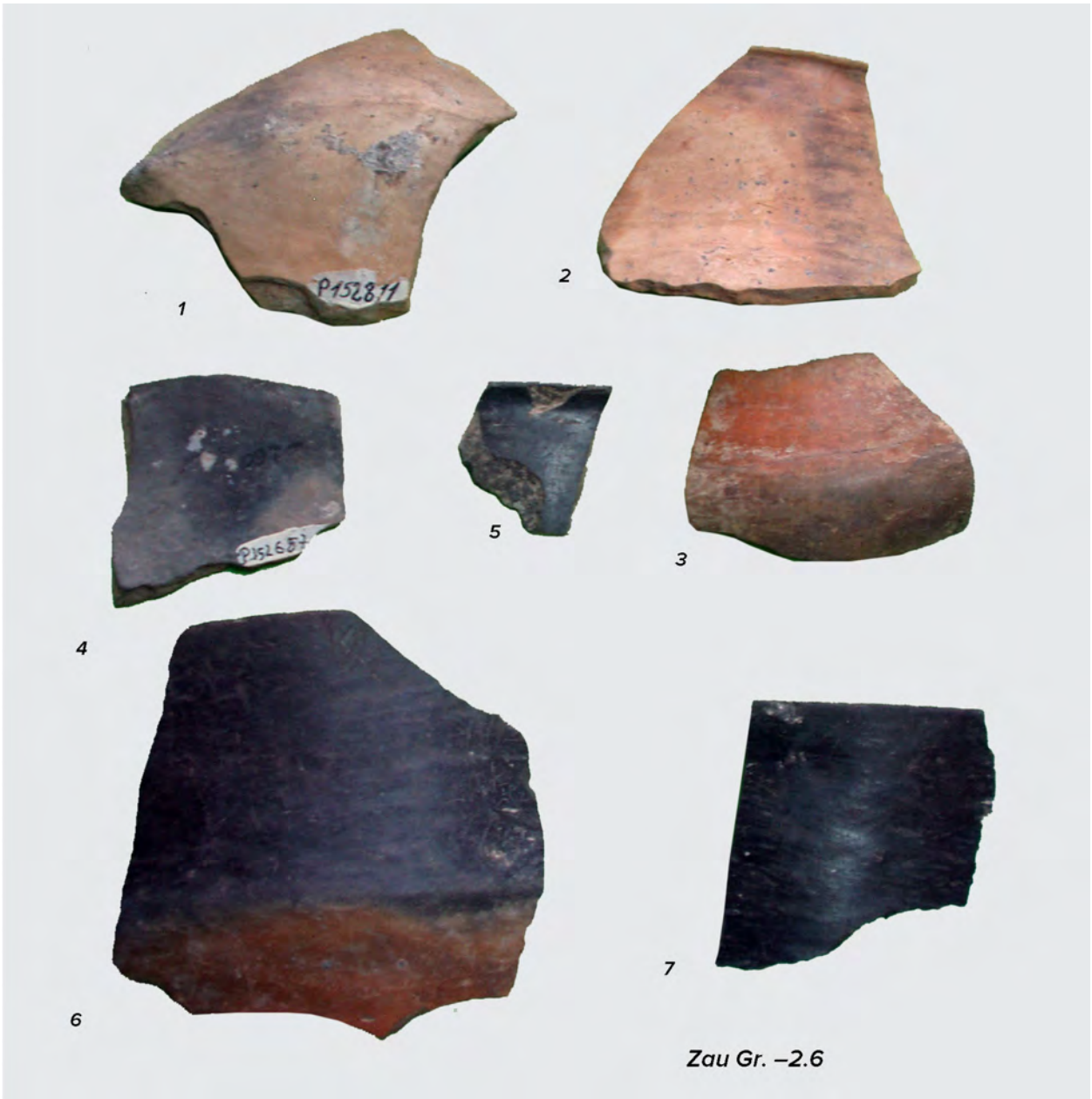


Fig. IV.40. a) Zau (pit at –2.6 m).

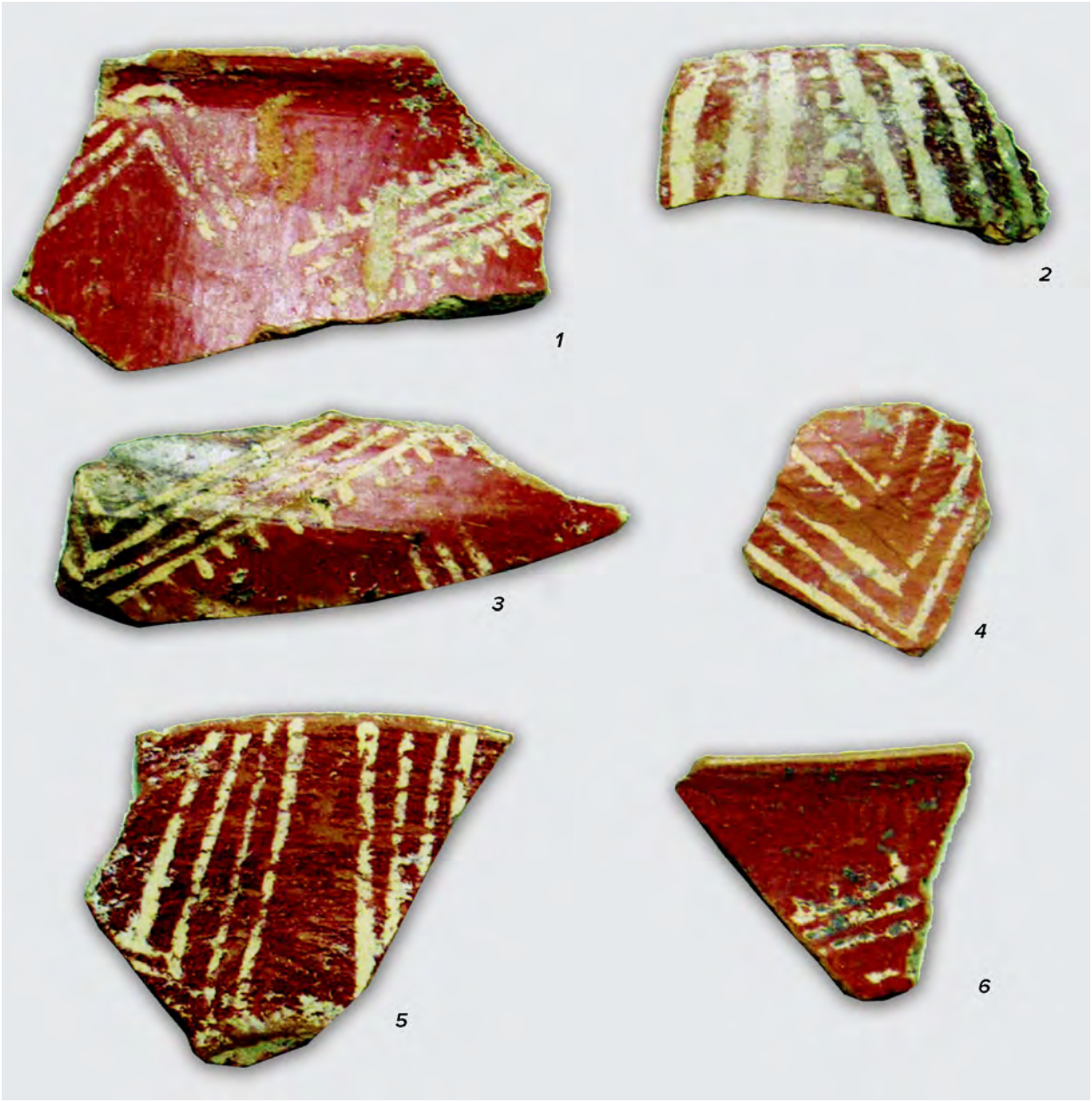


Fig. IV.40. b) Foeni, group Foeni.

At Zau de Câmpie it is possible to see how the Vinča and Turdaș cultures have contributed to the genesis of Petrești. Nevertheless, the new element that determines changes is the Foeni group. At Tărtăria there are no clear early Foeni group materials (for example fig. IV.40b), similar to Zau or Alba Iulia (fig. IV.39–40a). The black fired pottery in *blacktopped* technique, very frequent at Alba Iulia is also missing. The ceramic categories from Banat at Foeni (fig. IV.40b*)* are foreign to the local background of Late Neolithic (Vinča or late Zau). A similar situation is at Alba Iulia – quarter Lumea Nouă (fig. IV.39).

In some early complexes at Zau there is a black pottery worked in *blacktopped* technique (fig. IV.40a) as well as an evolution towards the Petrești A phase that maintains foreign southern elements (fig. IV.41a).

At Tărtăria there are black ceramic pots shaped with an angular shoulder. They have been discovered in the lower part of "***Petrești-Turdaș***" level (level IIIA in our opinion) and are specific for the classic Petrești culture; they are later than the ones from Alba Iulia, but belong to Petrești A phase.

In the case of some ceramic fragments from Surface A (–60 – 90 cm) the painting is specific for the Zau culture (fig. IV.43.2). Ex cultural groups Suplac and Iclod now belong to Zau culture, civilization that spread to the north until Halmen during phase Zau II. This situation demonstrated a similar evolution in the south and north parts of Transylvania. The only difference is that there are fewer Zau elements, which will be transmitted to Petrești culture.

Fig. IV.41a. Zau, materials of Foeni group at –2.3 m.

1

2

Fig. IV.41b. Tărtăria, Petrești pottery in Surface A, 45–65 cm, IN 14439.

Fig. IV.42. Pottery from Tărtăria: a)▲Surface A, c I, 60–90 cm; b)▲ up Petrești A; down Zau IV.

Fig. IV.43. Tărtăria, Surface H, 0.60 m, Petrești A pottery.

1

2

3–4

Fig. IV.44. Tărtăria: 1)▲Zau pottery; 2) bowl ▼; 3–4) pot stands, beginning of Petrești culture.

Another case is that of a cup with a large and hollow base (fig. IV.44–1), specific for the late Zau culture, and the northern or western ex-groups Iclod or Suplac (in the last case there are also Pișcolt culture influences – stemmed cups with a tronconic upper part).

In Surface A (–90–115 cm, IN 14707) a pot was found made of black paste, with pebbles in the mixture and a lobed decoration on the external margin of the lip. These are among the first characteristics of Petrești A phase at Tărtăria in level IIIa, respectively Petrești A, in which it is possible to observe the influences of the Zau culture.

The pot stand with a large leg (fig. IV.44.3–4), a characteristic shape from the Petrești culture transmitted to Ariușd – Cucuteni culture, appears at this chronological moment, possibly to replace the functionality of other pots.

Petrești AB – B potterry

Cup legs from Petrești AB-B are more advanced; the paste is of a very good quality and sometimes painted with different motifs (wide or narrow bands, bands with hachure, bands bordered by lines made with a darker color).

There are also cups made of regular paste. Their presence underlines the hypothesis that they also had a functional role, not just an aesthetic one. These cups, the traces found on them, have not been analyzed in detail. Some fragments represent parts from large stand pots with a small bottom that needed such a support. One hypothesis is that by placing burning charcoal under such pots, heat was preserved. For food, this was not necessarily, but we do not exclude this idea. In our opinion the shape of such pots is suitable for milk curdling. The large shape of the bowls standing on these pot stands permits an easier creaming. (fig. IV.41b)

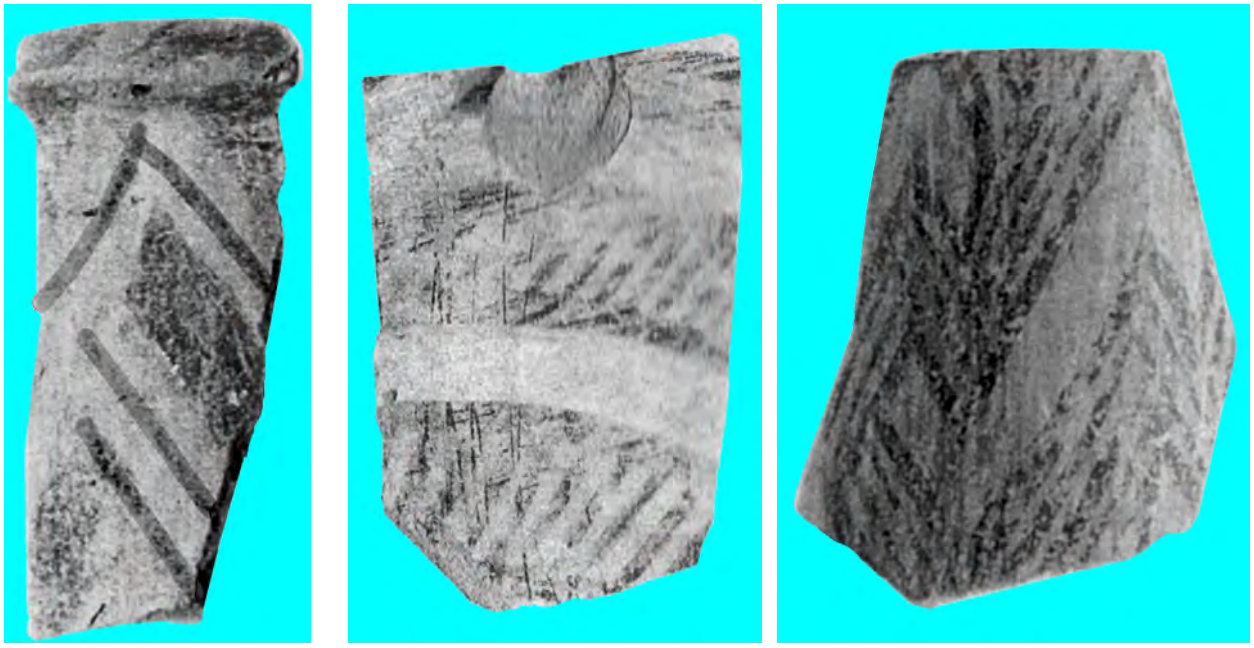
Fig. IV.45. Tărtăria: a–b) painted, Petrești AB-B pots stand, c–d) reconstruction.

We have observed such procedures at "women fold/stâna femeilor" at Păltiniș, on the occasion of some ethno-archaeological investigations made together with our colleague John Nandriș.

Ceramics are painted in a specific manner in the Petrești culture. These pots have been classified by Iuliu Paul, the author of the monograph and periodisation of this culture[152]. Painted decoration was also applied on semi-fine and everyday pottery, but in these cases it has not preserved well. Other relevant pieces are an asymmetric bottom pot, maybe from an anthropomorphic pot and some prominences on everyday pottery that, based on their paste and shapes, are common for Developed and Late Neolithic (sometimes even the paste can lead to confusions) (**fig. IV.47.3–4**).

One of the pots discovered by N. Vlassa (**fig. IV.47.1**) might belong to phase A of the Petrești culture, but it might be later, too. Sometimes in Petrești, some painted motifs evolve towards curved shapes, as the ones at Cuci (a large, hollow leg from a cup was also discovered there)[153]. In Southern Transylvania at Tărtăria, Turdaș, and possibly other sites, the Petrești culture experienced a retardation process, in comparison with the Cheile Turzii area.

At Cheile Turzii, in the caves investigated by N. Vlassa, a special pottery developed which was strongly fired and had an excellent paste and painting (unpublished materials in Turda museum).



1 2 3

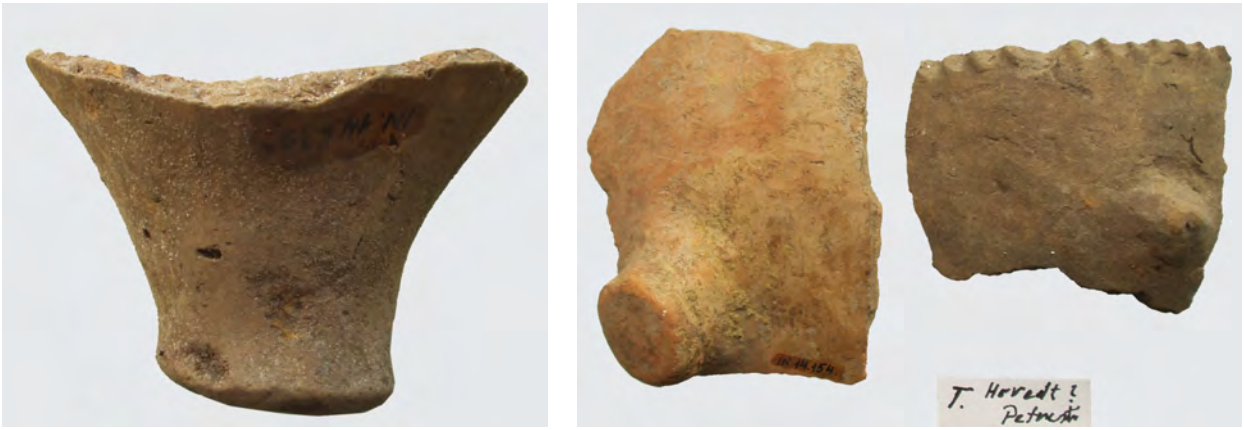
Fig. IV.46. Tărtăria, painted Petrești A–B pots from I. Paul's excavations.

4 5 6

[152] Paul I. 2007, p. 28 pl. XVIII–XIX. For periodisation and analogies see: Paul I. 1968; 19969; 1969a; 1981; 1992.
[153] Vlassa N. 1976, p. 137, fig. 13.

1 2

Fig. IV.47a. Petrești pottery: 1) after N. Vlassa 1976, fig. 5/5; 2) unpublished.



1 2

Fig. IV.47b. Petrești pottery: 1) Surface A, c I, 65–90 cm; 2) from K. Horedt's sections.

COȚOFENI CULTURE

The Coțofeni pottery from Tărtăria was inventoried in 1959 by N. Vlassa as Baden pottery (this was normal for that time, because the older phase was not well defined).

Similar materials exist in early Baden phase or in Baden Boleráz, but in areas of Central Transylvania channeling ornaments on lips are missing. They are present in other sites, such as Dăbâca, where an earlier pottery appeared. Ornamental motifs consist of large incisions in the shape of fir leafs, cuttings with spatula under the lips, notched belts, tubular handles, and full handles. Some notched belts, such as the ones published by N. Vlassa in the typological plate are considered imports. The horizon in which pieces have been discovered is unknown, but these types of pieces also appears in Foeni group[154]. Other early Coțofeni materials have been published by N. Vlassa together with very good drawings[155].

[154] Gligor M. 2009, pl. CLIV–CLVI.
[155] Vlassa N. 1976, p. 43, fig. 11.

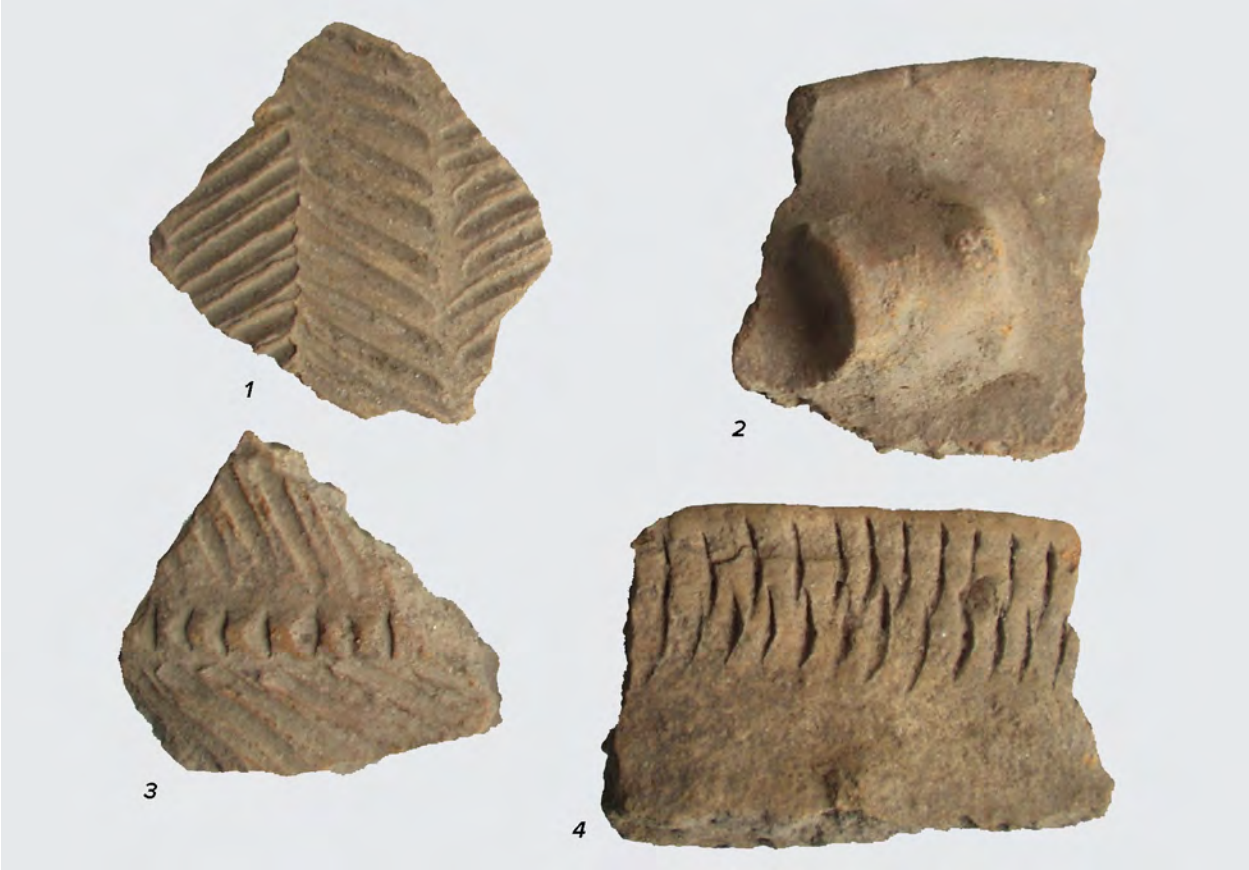


Fig. IV.48. Tărtăria, Coțofeni pottery.

Annex 3	Dark brown	Brick color	Black-ash	Ash color	Light brown	Whitish ash	Indeterminate	Brown	Brown ,rainbow	Whitish mauve	Black	Sum	%
Sum	108	94	74	69	56	48	48	46	15	13	11	591	
Percentage	18.2	15.9	12.5	11.6	9.4	8.1	8.1	7.8	2.54	2.2	1.8		100
Section G, h3	14	10	5	3	2	6	5	3	2		1	52	8.8
Surface A V, 0.60 m	13	8	8	2	5	3	6	2		2		50	8.4
without, box 1	4	10	4	8	5	4	2	5	2	3	1	48	8.1
Surface A II 0.60 m	9	5	3	7	2	5	7	7				47	7.9
without depth, box 2	8	12	4	6	1	3	3	6	1	1		46	7.8
without surface 0.20 m	11	10	5	4	6	2	2		2		2	44	7.5
Surface G, 3.20–3.40 m	10	2	4	5	7	5	5	2	1	2		43	7.28
Surface A III 0.60 m	5	2	7	3	7	2	6	4			1	37	6.2
Surface G, h3 A IV, 0.60 m	12	4	2	3	4	4	1	3	1		3	37	6.26
Surface G h1, 0.20 m		4	8	5	4	2	3	3	1	1	3	36	6
Surface G h2, 0.40 m	4	6	3	4	4	2	1	6	1			32	5.4
Surface G, h3 0.60 m	4	4	4	4	4		5	3	2	1		31	5.2
Surface C 26?; h7 box 1	6	7	4	5	1	4	1	1	1			30	5
Surface A II 0.20 m	5	7	1	5	3	2	1		1	1		26	4.4
Surface A I, 3–3.20 m	1	2	9	2		1		1				16	2.7
Section H, h6 1.20 m	2	1	3	1		3				2		13	2.2
Pottery under 1% was eliminated from the table as non significant													

Table IV.3. Tărtăria, interior color of pottery.

Annex 4

CATEGORY	
Code	**Name**
1	utilitarian pottery
2	semi-fine
3	fine

COLOR	
Code	**Name**
A	black
B	brick color
C	yellowish
D	orange color
E	dark brown
F	ashen
G	black – ashen
H	light brown
I	reddish
J	cherry color
K	red
L	black – ashen with rainbow
M	black with yellow rainbow
N	light ashen
O	light brown
P, Q	brown with rainbow
R	brick with rainbow
S	brick red
T	indeterminate
W	brick-black

MIXTURE	
Code	**Name**
0	silt and sherds
1	sand
2	fine sand
3	Sand with cu bob mare
4	pebbles
5	pound sherds
6	sand and sherds
7	sherds and sand
8	silt
9	silt and sand
A	sand and silt
B	sherds and silt
C	chaff
D	chaff and sand
E	sand and chaff
F	chaff and sherds
G	sherds and chaff
H	chaff and silt
I	silt and chaff
J	pebbles and silt
K	sand and mica
L	silt and pebbles
M	sand, sherds and chaff
N	crushed shells
O	sand and graphite
P	silt, chaff and sherds
Q	pebbles and sherds
R	sand, sherds and silt
S	broken pebbles
T	chaff, sand and pebbles

SMOOTHING	
Code	**Description**
0	white slip
1	polished
2	high polished
3	flatten
4	un-flatten
5	tree bark
6	harsh
7	slip
8	porous
9	soapy
A	applied barbotine
B	polished slip
C	flattening slip
D	fallen slip
I	well flatten
J	un-flatten slip
K	red slip
E	flour like
F	white angobe
G	red angobe
H	zellow angobe

FIRING	
Code	**Name**
1	well
2	weak
3	well oxidized
4	weak oxidized
5	well reduced
6	weak reduced
7	blacktopped
8	secondary fired

CHAPTER V
TOOLS, ARMS, ADORNMENTS AND OTHER ARTIFACTS

GHEORGHE LAZAROVICI, CORNELIA-MAGDA LAZAROVICI

There are relatively few objects from these categories and most of them are of small dimensions. This is explained by the manner of digging in use at that time, the rescue character of the excavations, soundings, and stratigraphic check-ups made by K. Horedt, N. Vlassa and I. Paul.

TOOLS AND WEAPONS

Fig. V.1: a) Middle and Lower Mureș River area with investigated sources of flint (S); b) flint blade.

b

Flint tools

Sources. On several occasions, N. Vlassa mentions differences between the flint from Tărtăria and that from Turdaș. Although the sites are located relatively close-by, their inhabitants used different sources of flint. During our expeditions,[156] we have identified flint sources at Orăștie, which were previously known by S. A. Luca's teams from their own excavations at Orăștie[157]. Several other sources have been identified in Orăștie Valley, in Strei Valley, along the entire Mureș Valley, from Gura Streiului downhill until Arad, with centers in Apuseni (chalcedony) and Poiana Ruscă Mountains. We have made no expeditions in the area surrounding Tărtăria and therefore have no information regarding possible sources in this area.

[156] Project between Romanian Academy – Iași Institute of Archeology (Cornelia-Magda Lazarovici, Gheorghe Lazarovici) and Austrian Academy – Institut für Ur. und Frühgeschichte (Gerhard Trnka).

[157] Information kindly provided by Sabin Adrian Luca.

A scraper shaped as a "T" (fig. V.1b), with *encoches,* used for making arrows has been discovered in N. Vlassa's Surface G, at –0.80 m.

Semi-transparent obsidian with smoky bands was used for making triangular blades, trapezium shaped blades, and scrappers realized on the edge of blades (fig. V.2.5–7). It is interesting to note that in Petru Balosin's collection there are no obsidian blades although obsidian is quite prevalent in the Vinča culture. In Transylvania, there are mainly three categories of obsidian (based on macroscopic observation):

- Firstly, a type which is transparent as glass appears in the Someș Valley; more frequently at Iclod[158], but also in the Banat area at Balta Sărată (thousands of fragments are found in the Vinča B1-B2 level)[159];
- Secondly, black obsidian is found, similar to that fromTokaj;
- Thirdly, smokey obsidian with bands is very frequent at Tărtăria (fig. V.2/5). This category, from a microscopic point of view, seems to belong to Carpathian 2, when compared to the analyses made on different sorts of materials from Cheile Turzii, and with materials in Banat or Liubcova[160].

Fig. V.2. Tărtăria artifacts: 1–4) flint tools; 5–7) obsidian blades.

M. Roska also mentions obsidian in the Mureș River and in about twenty other sites, including Tărtăria (Alsótatárlaka), Turdaș, Deva (maybe Mintia), Bretea Mureșană, Pecica[161], a.s.o.

There are a few pieces made of flint and obsidian discovered during K. Horedt's excavations. At Tărtăria, the studied flint is brown with pigmentations and a harsh structure, which was used for blades, and scrapers made on blades.

Some researchers believe that the obsidian found in Western Banat comes from Transylvania[162]. We have verified these Transylvanian sources together with John Nandriș during his expeditions in the southwestern massives of Oaș, Țibleș, and Gutâi Mountains, but the pieces discovered there were very small and rolled up, improper for making artefacts. High numbers of obsidian objects have been discovered in Western Banat, also during Fl. Milleker's excavations in the 1930s. Over 2680 obsidian objects (1868 blades) are mentioned at Vršac – Potporanj[163].

[158] Cores appear outside the sites, from investigations made by Gh. Lazarovici and A. Bulbuc.
[159] Lazarovici Gh., Petrescu S. 2000; Lazarovici Gh. et al. 2003; 2004; 2005.
[160] Comșa E. 1967, p. 8.
[161] Roska M. 1942, p. 325, no. 2.
[162] At Žarkovo levels II-IV: Garašanin M., Garašanin Draga 1955, p. 126; Roska M. 1942, mentions 99 sites with obsidian objects, most of them in the Transylvanian Plain and Meseș Mountains.
[163] Milleker Fl. 1939, p. 118.

Fig. V.3. Petru Balosin collection: 1–3), flakes; 4, 6) cores; 5) scraper.

This is comparable with the Balta Sărată site, for which J. Chapmann has counted over 2000 fragments. They were very common in the Balta Sărată II level[164]. Similar pieces have been discovered in other Western Banat sites (at Csene 5 blades, Novi Kneževac-Kamara Humka)[165]. Such objects have also been discovered at Gornea in the Vinča A levels[166], as well as in different other sites (Zorlențu Mare, Liubcova, etc.)[167]. For the Vinča site, J. Kozłowsky has argued that obsidian appears more frequently between 8.6–7 m during the Vinča A2–B1 levels, after which the percentage is proportionally diminishing (between 7–4.5 m)[168].

In Petru Balosin's collection, there are many flint tools and some flint flakes. He seems to have mainly collected bigger pieces, which shows once more the non-professional character of the collector. His collection contains more pieces than the number of tools found during excavations. Most of the tools seem to belong to the same flint source, suggesting that both communities, Vinča and Petrești, used the same source of raw materials. In other sites, such as Țaga, Petrești, or Iclod-Petrești, menilit (cornean) was used instead of flint, possibly because these communities were familiar with or had easier access to menilit/cornean sources. As mentioned before, N. Vlassa was the first to observe the differences between Turdaș and Tărtăria flints. We believe that the use of flint was favored by direct access to a bank fracture possibly near Valea Rea (the local name of the point).

Because Balosin's collection is selective, it is of little use to make determinations regarding the dimensions of the objects. Nevertheless, flakes prevail, which suggests the processing of the artefacts on the spot and confirms access to a source of raw materials.

On flint cores, regular blade detachments can be noticed. From the same collection, a flint pebble-hammer partly rolled up naturally (**fig. V.4.1**) has a multiple function: as a pebble-hammer and pestle for cereals. This piece was suitable for both activities, but the detached blade indicates that the main use was as a pebble-hammer. On ensemble images (**fig. V.3/3–4**), one can notice traces from grinding as well as flakes to be more suitable for the same purpose.

In general, these pieces are scarce and are mainly found when the source of raw material is accessible and located nearby. The above pieces prove the chopping skills of these communities and the ingenousity of their handcraft.

1 *2*

Fig. V.4a. Petru Balosin collection, flint pebble-hammer-pestle.

[164] Lazarovici Gh. 1979, pl. XIC/28, 36–44; Dumitrașcu S. 1969, p. 517.
[165] Milleker Fl. 1939, p. 106, 114; Kozłowsky J. 1982, p. 160.
[166] Lazarovici Gh. 1979, pl. XIA9–10, 18, 26, 32, 48, 50, 52.
[167] Zorlențu Mare: Lazarovici Gh. 1979, pl. XIE/39; Liubcova: Comșa E. 1967, p. 7 mentions 7 pieces from two different flint categories, translucent and smokey whitish.
[168] Kozłowsky J. 1982, p. 158.

Fig. V.4b. Petru Balosin collection, flint pebble-hammer-pestle. Detail.

The most interesting piece in Petru Balosin's collection is a point made on a flake. The piece, which is of a large size, was used as a scraper, while its edges could have been used for multiple activities, such as cutting or scraping.

Stone tools

The number of polished stone tools found in excavations is small in comparison with the area investigated and with the number of stone tools collected on the surface. We can argue that these communities utilized at maximum the tools they had (as suggested by the analysis of ceramic categories, too).

Fig. V.5. Petru Balosin collection, scraper.

In the excavated complexes, only one axe has been discovered by N. Vlassa in the filling of pit house 2, associated with some Vinča A3 materials. It is possible that I. Paul's excavations contain more tools. Petru Balosin's collection, however, contains several stone pieces, which may be explained by the regular survey of the area of the site (3 ha) during several years. We know from our own experiences at Iclod and Gornea that pupils visit the area of the archaeological sites on a regular basis. At Iclod, a smarter pupil managed to gather from the area of the defensive ditch (where the refuse of the site was thrown) up to 3–7 axes and 10–15 obsidian blades during one lunch break.

Fig. V.6a. Surface G, pit house 2, axe (1) and Vinča A3 pottery.

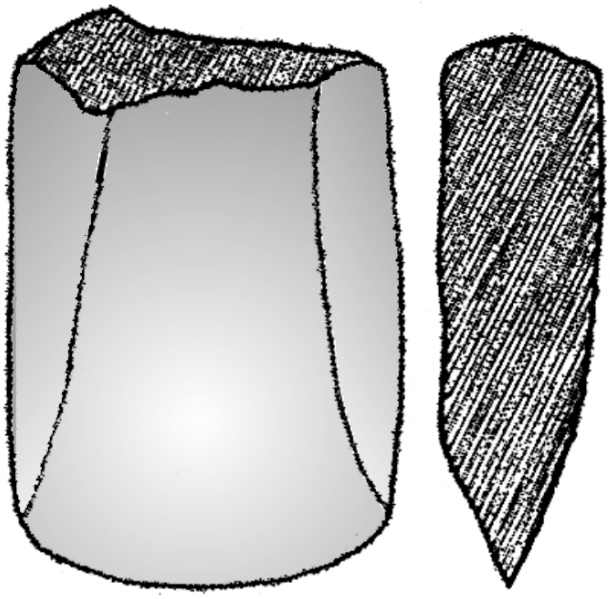


Fig. V.6b. Axe (after I. Paul 2007).

One explanation for the absence of this type of tools from publications may be its relative unimportance for chronology. I. Paul, for example, has published only a fragment of a half-broken axe (fig. V.6b); however, it may also be that only a few pieces have been discovered altogether.

Both Paul's piece and that of Vlassa (fig. V.6a.1, V6b) are rectangular. The piece discovered by N. Vlassa (fig. V.6a.1) was used as a chisel and has traces of notches on the edge and asymmetric percussion at the tag.

The second axe (fig. V.6b) after being broken was re-sharpened (assuming the drawing is correct) and used for cutting and taking out bark.

◀a▶

Fig. V.7a. Petru Balosin's collection: 1) perforated axe, Neolithic; 2) last type axe, Early Neolithic; 3) hammer-axe, Copper Age; 4) edge of a rectangular axe; 5) polishing tool; 6) axe fragment; 7) pointed nape of an axe.

b

c

Fig. V.7. Petru Balosin's collection: b-c) diverse type axe's.

Pieces from Petru Balosin's collection

In this collection there are many pieces made of different rocks that we have grouped based on color, as opposed to grouping them based on their typology. As we do not know the archaeological context in which they have been discovered, we cannot draw any conclusions regarding the preferences and time evolution of the three or four communities that inhabited the site.

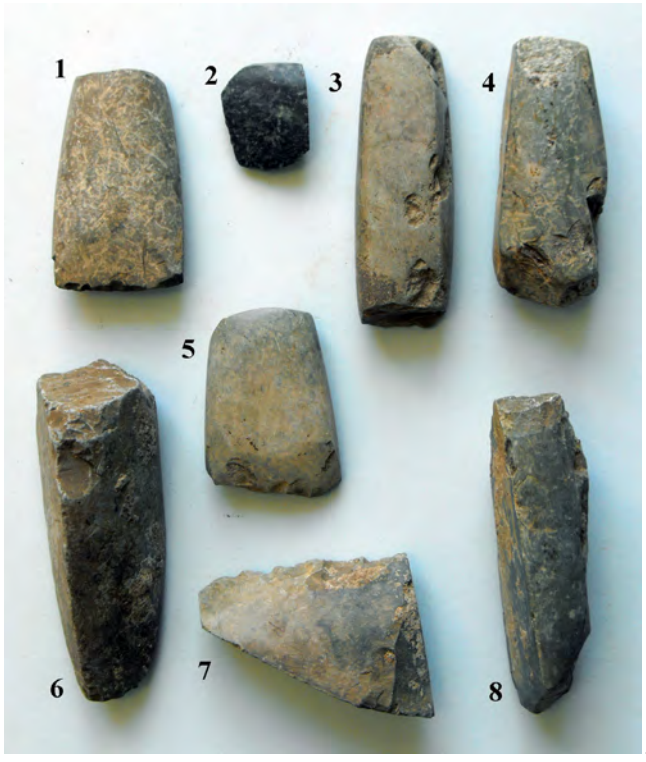


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Fig. V.8. Different types of axes.

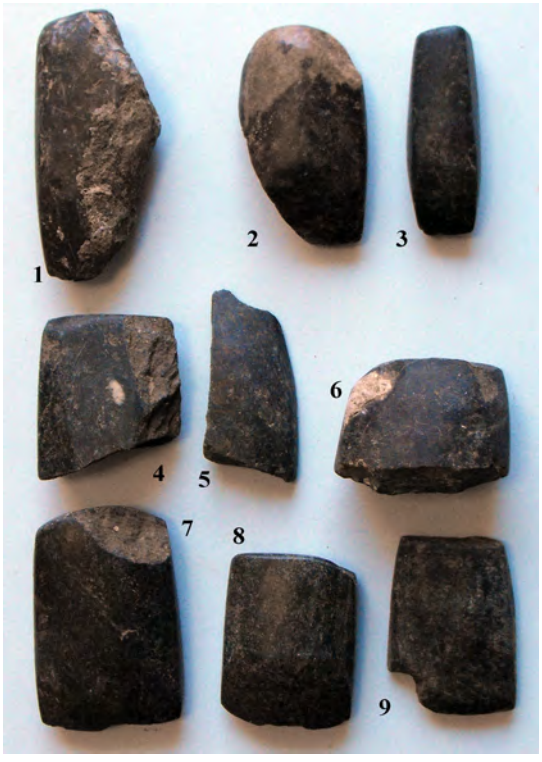

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Fig. V.9. Different types of axes.

The oldest piece in the collection seems to be an axe of last type made by a white-yellow rock, intensively used, showing many notches and reparations. Generally, this type of axe is more frequent in the Starčevo-Criș culture, and may very well belong to this stage.

The latest axe is a hammer-axe (**fig. V.7.3**) that might belong to Petrești culture[169] or even to Coțofeni. The perforated axe (**fig. V.7.1–3**), based on its length and slender aspect, imitates the copper axes of the Pločnik type (similar to the one found in the Turdaș hoard). Such pieces are known in the Vinča A phase at Ószentiván VIII, Potporanj and a. s.o.[170].

Therefore, we believe that both pieces belong to the Copper Age, Petrești culture[171], although the Cotlighet type of axe appears in central and northern areas of Transylvania.

Axes and chisels have been made on dark colored rocks, sometimes very well polished, which are abundant in the Mureș riverbed.

Hese rocks are washed away by water over large distances, far away from their main source.

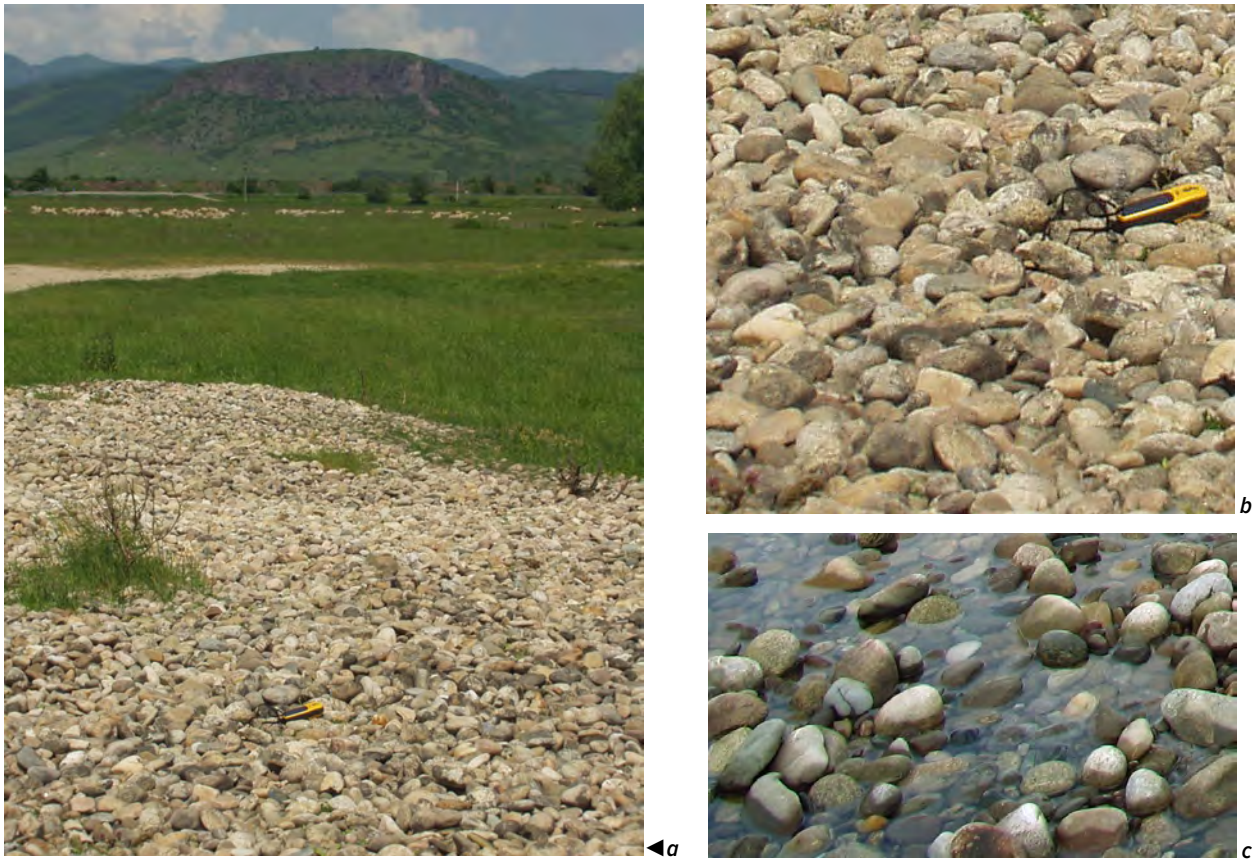


Fig. V.10. River beeches on the Mureș River and its tributaries with rocks used for chopping and polished tools.

Various sorts of rocks, including flint, used for processing axes, are found on the beaches of the Mureș River at Gura Streiului, Orăștie, and Sargeția, along the entire Mureș Valley until Arad, and in the ballast areas at Tudor Vladimirescu. The type of flint found at Orăștie seems to be of a different quality than the one from Tărtăria. We have not investigated the Mureș riverbed, but at Tărtăria during our expeditions in 2005–2006[172] the water was very high and only tributary rivers have been investigated. Nevertheless, riverbeds contain all sorts of materials that can be used to polish axes. Big black-ash colored rocks were processed into wide rectangular axes (**fig. V.8.1/6, 8; 2/1, 11; 4/1, 7**) as well as into big, rectangular, thinner axes used as chisels (**fig. V.8/1, 2; 2/2, 3/3, 8; 4/3 a.s.o.**). Ash colored rocks were used for similar types of axes.

There are smaller trapezium shaped axes, very sharp and polished, which were used for cutting food, as recent and modern ethnographic data prove. Some axes have notches, are broken, or have missing parts because of their use for chopping or for other sorts of domestic or building activities.

169 Piece seems to imitate the type and functionality of the Cotlighet copper axes: Vulpe Al. 1975, pl. 2.19–21.
170 Banner J., Párducz M. 1948, p. 39; Milleker Fl. 1939, p. 153, fig. 33/4–5.
171 Vulpe Al. 1975, pl. 1.4.
172 Romanian-Austrian project.

Fig. V.11. Chisel, Turdaș level.

Fig. V.12. Pointed tools.

Bone tools (fig. 11–14)

Bone tools are better represented than stone ones. From K. Horedt's excavations in Surface A level IIb (0.45–0.65 m, IN 14440) there is a bone chisel (fig. V.11) made of a cattle or deer femur. This piece shows signs of intense use; it has several notches and longitudinal detaches, which suggest that it was used as a chisel. The other two bone pieces represent awls: one has double edges, while the second was made of a deer horn.

There are many spatulas in comparison with other objects (such as axes) made of large bone walls. They could suggest a use in making pottery.

Fig. V.13. Spatula (1–3)▲; Spatula with a hole for carrying (4) ▲.

One spatula discovered by I. Paul (fig. V.13.4) has a perforation, allowing it to be carried on the neck or at waist.

This collection **Petru Balosin's** includes several pieces: two awls made of the wall of a big bone (fig. V.14/1, 3) or animal rip, a needle with a broken point, with a long handle, well polished (fig. V.14/2); needles and long or short awls (fig. V.14/4–6).

This suggests that many complexes have been destroyed when ploughing; the pieces in the collection could come from the broken bank of the terrace or may have been gatherred after excavations or in-between excavations. During our several visits to the site, we have observed that the grass grew relatively quickly on the terrace bank, in about 1–3 years in the absence of erosion.

In discussing the functionality of the bone pieces one should see beyond their practical usage as awls, or needles. Some studies indicate their use also as ornamental objects (fig. V.13.4); the spatula with hole, for example, could double as a pendant or amulet. This piece was very well polished and resembled an ornament. It could also have been used as a hair needle. This could explain why it is so polished and has such a long rectangular edge (fig. V.14/2). Joachim Miloja has considered some bone pieces, such as the long elegant ones from Parța, to be hair needles[173].

Fig. V.14. Petru Balosin collection, bone tools.

In one study, J. Csalog[174] interprets the hair-do on some Neolithic statuettes, especially the Vinča ones, as sustained by hair needles. We should not overlook this type of opinion, because in some cases we need to reanalyze certain objects. For example, certain larger bone or shell rings, which are not large enough to be worn on arms, may have had a different function than originally believed.

Clay objects

Clay weights have been discovered in excavations. Most of them are broken, which is surprising because of their sheer massiveness. Therefore, we believe they have been intentionally broken. Some of them also have different decorations. Many weights have signs. Through their motion, the ones used for twisting fibers may have a meaning, while the decor suggests a certain image. Those with big holes could have been used for fishing net, but also for extending the fibers on the margin/edge of the loom.

Fig. V.15 a–b. Clay weights with decorations.

[173] Miloja J. 1931, p. 173.
[174] Csalog J. 1959.

At Balta Sărată, after six conic weights follow a round weight that bordered a thicker fiber, possibly marking the margin, or delimiting the tissue/fabric. Courtesy of our colleague Paula Mazăre, from her PhD documentation, we have images with clay weights and one whorl (**fig. V.19/7a–7b**) discovered in I. Paul excavations.

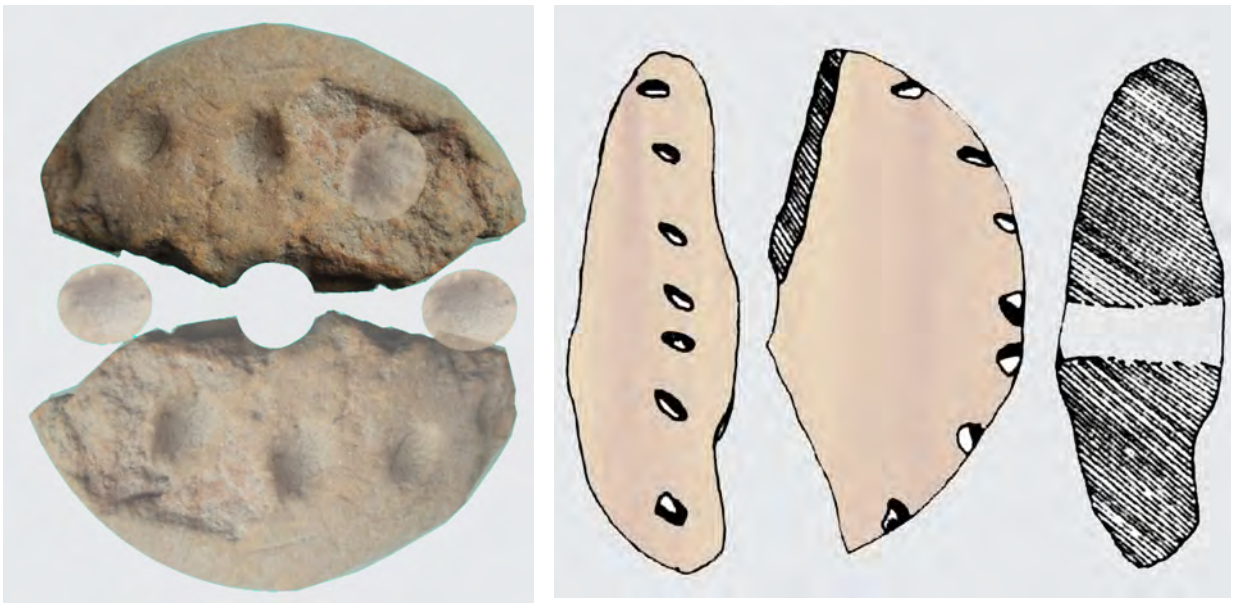


Fig. V.16. Clay decorated weights.

Fig. V.17. Clay decorated weights.

Fig. V.18: Whorls; Petru Balosin collection.

The clay weights are broken in the middle (we are not sure if this is related with a ritual concerning their meaning) and most of them have a massive aspect and seem quite difficult to break. Some smaller and tronconic clay discs may have been used as whorls (fig. V.19). They are smaller in comparison with the loom weights and those used for fishing nets. Generally, potters make very good quality products, but these whorls are not perfect; they are rather asymmetrical, possibly because of their functional role. One such piece has an incised decoration consisting of double lines, asymmetrically disposed (fig. V.18).

Fig. V.19. Clay weights and whorls found in I. Paul's excavations.

Fig. V.20. Whorl fragment, after Paula Mazăre.

Sometimes, signs and symbols appear on such pieces. Our database includes more than 90 signs on whorls. Most of them have been discovered at Turdaș, Nandru, and other Late Neolithic sites such as Jela, Phafos, Svetozareavo, Sitagroi, Slatino, Kosovska – Mitrovița, Dimini, Battonja, Dikili Tash, a.s.o.[175]. Generally, on such pieces are rendered signs and figures that depict stars, allegories, and the labyrinth motive, a.s.o.

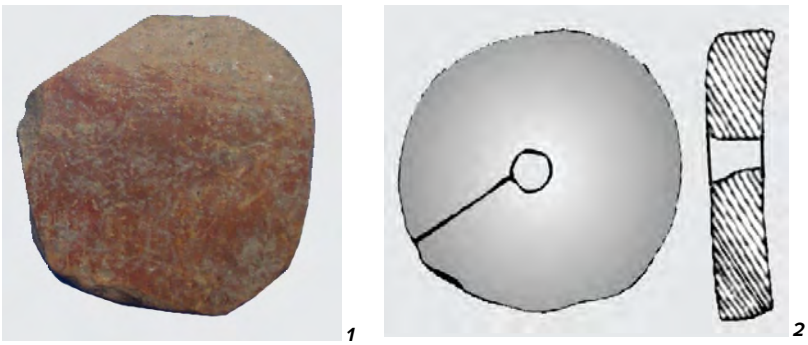


Fig. V.21: 1) Clay disc; 2–3) buttons or whorls.

Fig. V.22. Tărtăria clay "bread"; b-c) architectonic element, border of a clay cassette.

The wall of a very good quality pot from Vinča A3–B1 level was used to make a disc. Such pieces have been interpreted as toys. Other similar pieces with a round hole in the middle served as buttons for leather clothes. At Parța, tens of such pieces have been found, counting only the ones found in complexes[176]. Other such clay objects are very similar to a "bread" broken in the middle, rendering the idea of the sacred bread (discoveries at Banjica, Vinča, Balta Sărată, a.s.o.).

Other clay objects have sacred signs, such as whorls, discovered in the mentioned sites or in others, related with sacred rituals such as grinding,[177] the making and baking of the bread[178].

In general, they are related to grinding stones in sanctuaries and clay patterns, storage pots, ovens and others[179]. K. Horedt discovered a similar piece during his excavation, which is also mentioned in the inventory made by N. Vlassa, which we cannot find.

Adornments

Adornaments are very scarce. In the inventory of the "*Milady Tărtăria*", there was a ritually broken *spondylus* bracelet and there are other fragmentary pieces made of *spondylus*.

In the inventory of the "*Milady Tărtăria*", there was a ritually broken *spondylus* bracelet and there are other fragmentary pieces made of *spondylus*. This *spondylus* shell plays an important

[175] Von Torma Zsófia apud Roska M. 1941, 127–128 a.s.o.; Vlassa N. 1970, p. 19; Gimbutas Marija 1973, fig. 3; 1991, fig. 8–10; 1974, p. 41; Winn S. 1981, Nandru 1, Jela 1–2; Makkay J. 1990, fig.16/1, fig. 19; Merlini M. 2009, p. 202–206; *** *The Danube Script 2009*, p. 141–147.

[176] Lazarovici Gh. et al. 2001, I.2, pl. 9/19, 12/3, 18/11, 31/1, 4; 42/10, 46/12, 14; 49/10–11, 13, 15; 79/1–2, 100/10, 86/6.

[177] Gimbutas Marija 1982, p. 67; 1991, fig. 6–12; Makkay J. 1984, p. 1; 1990, fig. 18/4; *Idole,* Mainz 1985, p. 65–66; Lazarovici Gh. 2003b.

[178] Lazarovici Gh. 2003b, see the bibliography and examples.

[179] Paul I. 1965, p. 5 ff., fig. 1–4, pl. I–II; 1992, p. 104–106, pl. LII/2–3; Dumitrescu Vl. 1970, 10, 4, III/2; Makkay J. 1971, p. 138; 1978, p. 13–36; Vlassa N. 1972, p. 22; 1972A, p. 191; 1976, p. 255, fig. 52, 13/3; Ljamić-Valović N. 1982; Gimbutas Marija 1984, p. 25, 34, 74, 81, fig. 34; 1991, fig. 6–12; Makarević M. L. 1960, p. 282; Monah D. 1997, p. 33, 261, fig. 7–59-a–b, p. 255, fig. 3–1, p. 429–431; Lazarovici Gh., Dragomir I. 1993, p. 12, n. 46; Lazarovici Gh., Maxim Zoia 1995, p. 185.

role in the mentality of Neolithic people and circulates on a very large scale[180]. It was believed to bring good luck to its carriers; it may also have a meaning and may be a sign of social distinction. At Parța, there are several such pieces and in the Resch – German collection there is an entire valve, perforated, and with a human face. At Lumea Nouă, in the Foeni level, a dog skeleton was found with a *spondylus* pendant next to it[181]. From I. Paul's excavations, there is a *spondylus* fragmentary pendant with a similar section as the bracelet discovered in the ritual pit. However, one should check if this is not the missing part from the bracelet discovered by N. Vlassa. A perforated sheep astragal was discovered in cassette G, but we have no further information about it (fig. V.25). Astragal is one of the tarsien bones used in antiquity for knucklebones or dice[182].

Fig. V.23. Spondylus fragmentary bracelet.

Fig. V.24. Ferrule or ring.

Fig. V.25. Astragal.

Fig. V.26. Tărtăria, left, the tell from Vinča phases and in the middle an older riverbed.

180 Horedt K. 1970, p. 104, fig. 41.
181 Gligor M. 2007.1, p. 204–206; 2007.2, pl. CCVIII.2.
182 *** *Enciclopedia Arheologiei*, A. s.v. astragali.

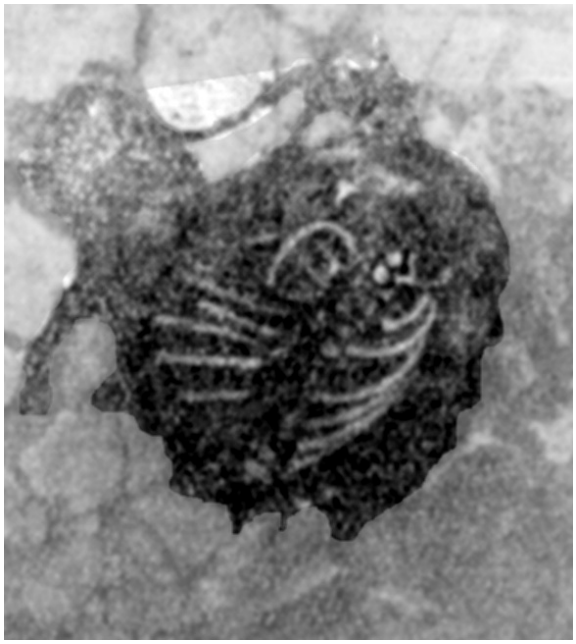
CHAPTER VI
CULTIC OBJECTS AND RITUALS

GHEORGHE LAZAROVICI, CORNELIA-MAGDA LAZAROVICI

There are not many objects that can support the idea that the Tărtăria communities enjoyed an evolved spiritual life, especially since considerable part of the discoveries (i.e. the ones at Alba Iulia) was not accessible to us. Nevertheless, even if we had had access to these objects, it would have been extraneous, as the new extended excavations at Tărtăria (in which we are going to participate, too) are expected to bring new finds, information and scientific data that will permit us to perform a broader analysis and a more exact classification in the future.

Because of the importance of the Tărtăria discoveries, we will start with some general ideas concerning these objects. In another study, the most distinct pieces will be separately analyzed and some discussions will be reopened.

Fig. VI.1: a) Photo with the child's grave in Surface C, after K. Horedt 1949; b) detail.



The ***ritual pit*** is, beyond any doubt, an inciting discovery that has started animated discussions in Romanian archaeology and not only. We will provide below further details, but here we only want to highlight the special role and the importance of such a discovery.

According to research presented earlier by us and other colleagues, radiocarbon data at Tărtăria, as well as the ones from neighboring sites and cultures (see Chapter XIII), prove that most of the discussions for or against the tablets and their chronological role today is part of the history of the research and we will no longer insist on this problem. What is really important now are the determinations and the new interpretations of the ritual pit after the anthropological analysis and the reinterpretation of the inventory.

THE GRAVES (fig. VI.1)

Until now two human skeletons were found at Tărtăria. The first is a child's grave published by Kurt Horedt and, because it produced a number of interpretations, we consider it important to carefully analyze the description of the discovery, as noted by the professor.

Grave 1 in Surface C. About the horizon and the discovery conditions of this skeleton K. Horedt notes[183] *"The painted pottery (of the Petrești type* – our note*) is abundant even from the stage of the first spade... the upper level of our site between 0.20–0.40 m must related to this civilization".*

Further on he writes *"... in the Southeastern corner, at 0.40 m there is a fireplace that continues under the Southern wall. When the fireplace was uncovered, a small child's skeleton was found lying on it. The lower limbs were severed together with the wall (the profile!!* – our note*) ... the ditch of the grave was oriented in the same direction as the legs, chest bones and crushed fragments of the skull could be found in situ".... "... because of the shallow depth (of the discovery) and of the skeleton's positioning directly on the fireplace this might be a Neolithic ritual entombment (an infant sacrifice?)... ".*

[183] Horedt K. 1949, p. 51–52.

The poor quality of the published photo and the location of the grave in the small cassette especially opened for its identification do not allow for many details. We obtained some details by setting a higher contrast on the photo, but even so they are not very useful. According to the description, the skeleton was situated near Surface E. If the skeleton had been found at –0.40 cm, it might have been buried at a depth of –0.20 to –0.30 cm. As K. Horedt himself noticed, it is difficult to establish its period. In that surface there were mixed fragments of pottery to –0.60 m and in the inventory they appear as "Kostolac" sherds[184].

The skeleton might then belong to the Coțofeni or Petrești culture, for sure not to the Vinča culture.

Grave 2. The second grave discovered in the ritual pit belongs to a woman, the "*Milady Tărtăria*". As it belongs to the Vinča A2 phase, it will be analyzed separately. We can see therefore that the situation is not clear; maybe future determinations or radiocarbon dating of the bone material will bring new data.

First we will present the categories of cult objects and then we will continue with some general observations. Due to the discontinuity in the levels at Tărtăria, our presentation is organized according to the époques, although ample research in different areas might actually change the current opinions. Anyway, the intensity of habitation is different from one period to another.

THE VINČA ART OF MODELLING

Except the materials discovered in the ritual pit, that were grouped and had a well defined role, the other objects related to spiritual life are scattered and less significant. Nevertheless, they need to be analyzed.

Monumental idols

The monumental idols are generally part of altars or domestic sanctuaries.

In Surface E excavated by K. Horedt it was discovered a fragmentary leg of a big statue (over 25–30 cm). On the instep and ankle there are traces of ties that fastened a sort of footwear. Such wide incisions are very well represented starting with the Paleolithic time[185] on bone figurines, later on idols of different Neolithic cultures, as well as at Turdaș level[186]. The second piece is from Surface B (no other details!) and is either part of a pot with legs or the legs of an altar, as they often appear in different cultures, such as Vinča[187], Cucuteni.

The third piece, from Petru Balosin collection, is part of a big statue, if we consider that the foot has 10 cm, being as long as a child's foot. Only the right foot of this statue was preserved. The statue must have been over 50 – 60 cm high. On the margins it has a dot decoration pattern which is less common, but still present on some Neolithic statues. The inner part of the foot is not decorated. Because of its general aspect, the piece seems to belong to the Turdaș period, but it can be even older. There are other Late Neolithic statues decorated with dots on the legs or feet.

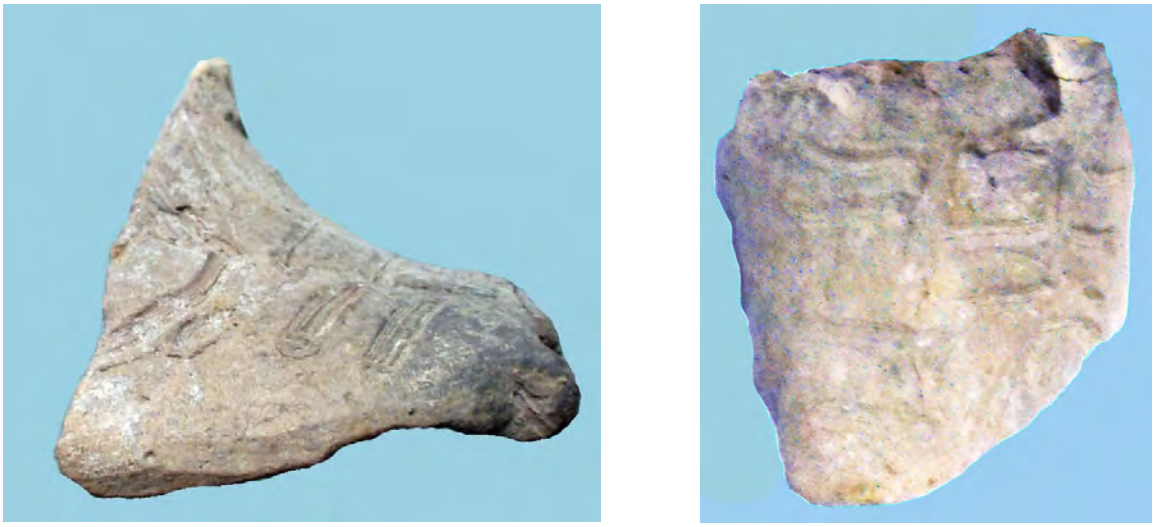


Fig. VI.2. Legs of monumental idols from Surface E.

[184] Inventory IN 15210–15239.
[185] Hansen S. 2007.1, fig. 8/3, 9/1–2.
[186] Ignat Doina 1998, fig. 43/1; Hansen S. 2007.2 at Valač, Iašatepe, Nova Zagora, fig. 177/36, 186/18, 264 ff.
[187] Gimbutas Marija 1991, p. 116/118, pl. 9.

Fig. VI.3. Leg of an anthropomorphic pot.

Sometimes the dots are finer, other times coarser, as in the case of a female statuette at Birmenitz and of others; some of these representations belong to civilizations contemporary with the Turdaș culture or with the late Zau culture (Halmeu, Suplac[188]) with which they are associated in several sites[189]. The already mentioned analogies are similar with the ones in the Balkans during the the Neolithic and Copper Age, which in our opinion is no accident.

Mention should be made that the monumental idols, stellae, middle or big altars (over 30 cm) belong for sure to some domestic or community sanctuaries[190].

Fig. VI.4a. Foot from a monumental idol, Balosin Collection.

Fig. VI.4b-c. Leg of a monumental anthropomorphic idol, Balosin Collection.

188 Horedt K. 1949; Ignat Doina 1988, p. 184–187; Hansen S. 2007.2, pl. 240–241.

189 Hansen S. 2007.2, p. 511, pl. 511.2, 507/1, 510/2, 511/4, 500/4, 338/5, 337/9, 10.

190 Petrescu-Dîmbovița M. 1953, p. 7 ff.; 1954, p. 7 ff.; 1955, p. 165 ff.; 1959, p. 63 ff.; 1962; 1969, p. 172 sqq; Petrescu-Dîmbovița M. et al. 1999, p. 121, fig. 88; Aldea I. Al. 1974, p. 40–47, fig. 1–4; Kitanovski B., Simoska D., Jovanović B. 1990, p. 109, fig. 5–6: Marinescu-Bîlcu Silvia, Ciacâru M. 1994, fig. 1–3; Monah D. 1997, p. 38, fig. 9/1; Dumitrescu R. et al. 1999, 85–88, 65; Mantu Cornelia-Magda 2002; Lazarovici Gh. 1998b;1998c; 2004; Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, fig. Va.28, Ve.98; Marangou Christina 1992, p. 184, no. 310; Paul I. 1992, p. 107–108; Lazarovici Gh. et al. 2001 I.1, p. 268, 234; 2001, I.2, p. 276, 251/1, 241, fig. 196: Vuković Jasna 2004, p. 84, fig. 1 a.s.o.; Nica M. 1980, p. 36, fig. 11/1a–b, 17/1; Marinescu-Bîlcu Silvia 2002, p. 149; Andreescu R. 2002, p. 13; Ursulescu N. 2002; Lazarovici Cornelia-Magda 2004; Babović L. 2006; Lazarovici Cornelia-Magda, Lazarovici Gh. 2007 p. 56 ff.; Lazarovici Gh., Lazarovici Cornelia-Magda 2007a.

Plastic representations on pots

A special piece, ascribed by us to the Zau culture, is a protome painted on the middle of a pot[191].

According to K. Horedt, the piece was found in the Southeastern corner of Surface E, and has *"...a red layer"*[192]. The pot itself was covered in red slip, polished in the lower part, which reminds of the cups made in the *blacktopped* technique and other pots with a red lower part. Such cups are used for drinking liquid in turns by several people. Actually, the cup itself is related to the idea of handing it from one person to another. This piece has counterparts at Miercurea Sibiului where a statuette discovered in pit house B5 has similar tattoos on the face[193].

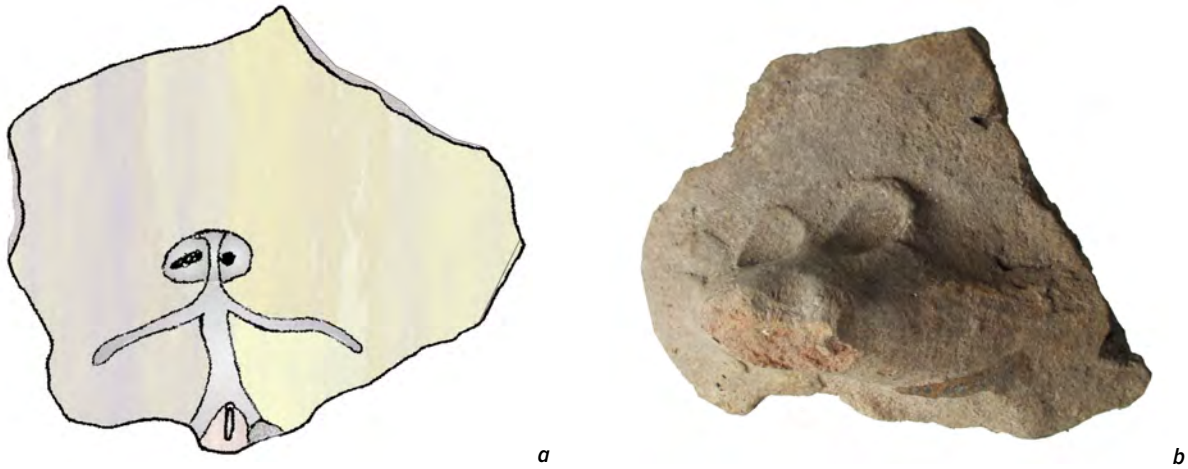
The shape of the protome face is unusual. Idols with a pentagonal mask appear sometimes in the Vinča culture, but these are different and have other kinds of shapes. The face in fig. VI.5ab has three incisions on the forehead, two disposed in the shape of a "V" letter (one of the lines is double), a sacred sign certainly. This piece is unique in the Vinča culture on the Romanian territory. In the Zau culture, that otherwise has few graphic representations, there is a monumental idol with three similarly incised "V"–shaped signs (one of it double), but in this case the incisions are at the base of the head not on top of it. The rest of the image reminds of a mask.

Other two graphic representations on pots at Tărtăria are unusual too. One is a figure that resembles a male dancer with a mask on the face[194].

Its arms are open (this suggests dance, rotation) and the sex organ is rendered between the legs. The dance gesture and a similar mask appear on the Cucuteni representations of characters with musical instruments (or bow) wearing different costumes (**fig. VI.7**)[195]. Such sketchy or stylized masks were frequent since the earliest times and have a triangle or lozenge shape[196]. In the Cucuteni culture there many such masks[197].

Fig. VI.5: a–b) Tărtăria, pit house in Surface E – anthropomorphic protome, human head with mask, import from Zau I phase (after K. Horedt 1949).

[191] Vlassa N. 1962; 1963; 1976, fig. 11, level ***Turdaș – Petrești***; Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 420, fig. IIIe.17, IIIe.18/3.
[192] Horedt K. 1949, p. 53.
[193] Suciu C. 2009, p. 111, fig. 152.
[194] Paul I. 2007, pl. X/3.
[195] Lazarovici Cornelia-Magda 2006, p. 66.
[196] Hansen S. 2007.1, pl. 20/4.
[197] Monah D. et al. 1997, p. 239 cat. 254; Lazarovici Cornelia-Magda 2004, p. 93 ff.; Lazarovici Cornelia-Magda et al. 2009; Bicbaev V. 2009, cat. 434.



a b

Fig. VI.6. Tărtăria clay representations: a) dancing character after I. Paul 2007; b) fragment with a mouse from Surface E.

At Zorlențu Mare (**fig. VI.8b**) there is a special image, similar to the ones at Tărtăria, this time on a storing pot: a very elegantly rendered dancer. The second piece is a relief protome rendering a mouse head with its characteristic big ears (**fig. VI.6b**). It was discovered in Surface E by K. Horedt and due to the paste it seems to belong to the Vinča culture.

On another ceramic sherd from I. Paul´s excavations there is a human figure in relief with one hand (or maybe both) raised up[198]. Near this representation two prominences or lobes can be seen, representing breasts or just a decoration.

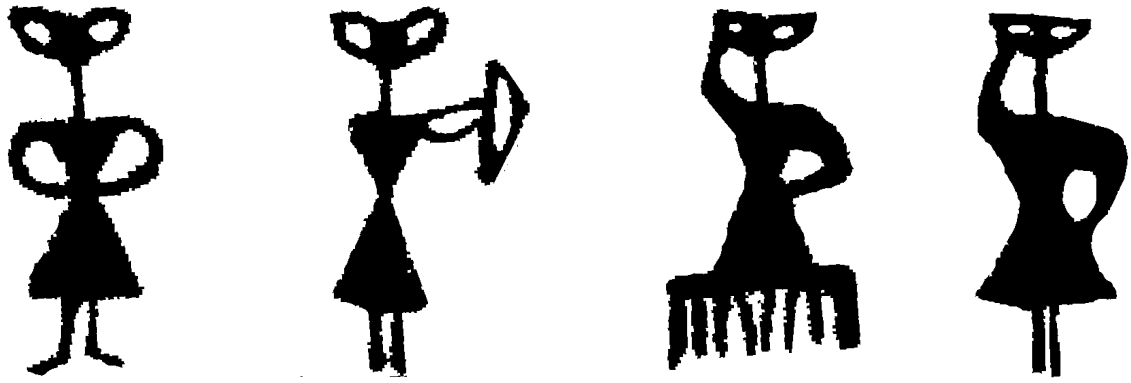


Fig. VI.7. Cucuteni-Tripolye, dancers with masks, musical instrument (bow?), after Cornelia-Magda Lazarovici 2004.

Fig. VI.8a. Tărtăria, dancer, after I. Paul 2007.

Fig. VI.8b. Zorlențu Mare, dancer of Vinča B time.

[198] Paul I. 2007, pl. XIV/5.

Cultic pots

Cult pots have several functions; some of them were used to contain liquids with a sacred functionality[199] that is to burn, to illuminate or to maintain the fire source or the sacred fire. Other pots, some of which smaller, have two mouths and were used for the sacred liquid: through one mouth the liquid was poured in, through the other it was poured out. Such pots from Tărtăria have only one mouth through which the sacred liquid can be poured into another vessel. The broad shape of the pot allows for different sort of fats (lard, tallow, oils and maybe others) to be poured in, while through the only mouth they could be poured out. Some pots served as small altars from Starčevo-Criș culture[200]. Their cultic functionality is related to maintaining and protecting the fire and the light.

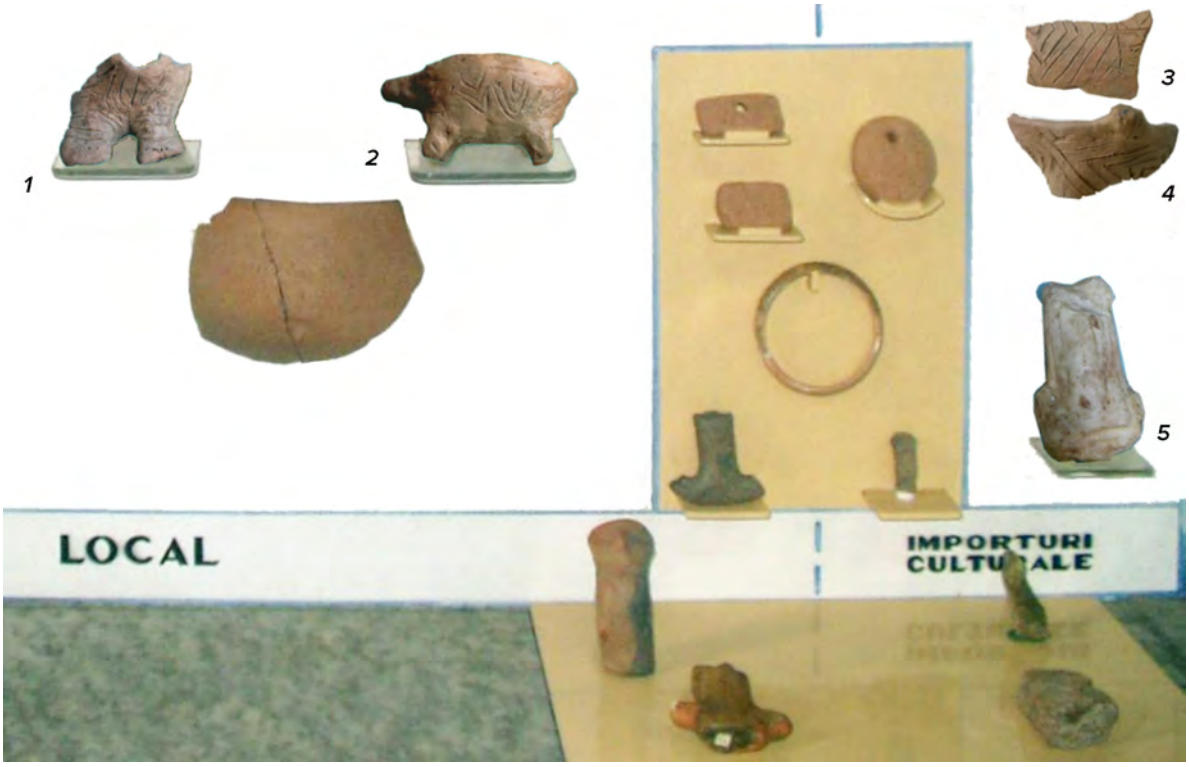


Fig. VI.9. N. Vlassa's synoptic table (MNIT Cluj-Napoca).

Fig. VI.10a-e. Tărtăria, cult pot and different details.

10b

Such cult pots have drawings, symbols and signs related to eyes, wolf heads with eyes, coupled half moons but also sacred symbols[201] and signs[202].

[199] Lazarovici Gh. et al. 2001, p. 280, 281, Lazarovici Gh., Lazarovici Cornelia-Magda 2009, p. 251, 258, 280–281.

[200] Lazarovici Gh. 1969, fig. 8/1, 3, 8; 1975, pl. III/9; 1976, 3/9: in our database we have over 100 such pieces.

[201] Lazarovici Gh. 2004–2008, p. 100, Annex I, Table 8–9; small altars in the Karanovo culture have solar signs: Todorova Henrieta, Vaisov I. 1993, p. 216, fig. 208/3, 10.

[202] Lazarovici Gh. 2004–2008, p. 100, Annex I, Table 8–9, signs 124b, 149ef, 158d, 430 a.s.o.

In his study, Kurt Horedt mentions the discovery in Surface C *"...between –0.50–0.60 m zoomorphic and anthropomorphic pot fragments... The Turdaș type material and the red slipped ware are represented in all layers"*[203]. Based on the inventory numbers and depth, N. Vlassa put the two zoomorphic pots in his stratigraphic profile in the ***Turdaș*** horizon.

10c

10d

10e.

Fig. VI.10f. Donja Branjevina, cult pot in the shape of a deer with basin on its back.

We think they were used as lamps (**fig. VI.10d**) and as fire keepers. There are other similar zoomorphic pots that could be used as lamps. John Nandriș is the first specialist who argued that the small altars had been used as lamps.

On the one hand, without these observations, this type of pot is not very significant. On the other hand, the old traditions from the Early Neolithic did not completely disappear, as we will see for other types of cult objects. On the body of the Turdaș pot (**fig. VI.11a–b**) there are some decorative elements, but also signs, especially when the symmetry of the decoration was not followed.

Under the mouth of the small altar (**fig. VI.10a**) a recipient with a wick is drawn. A third zoomorphic pot, better preserved was ascribed by N. Vlassa to a later level (***Turdaș – Petrești)***[204].

It is a four-legged pot decorated with meander bands. The basic idea of these meander bands was to render the cross band that covers several parts of the pot: neck, abdomen and some other parts of the body. Above the legs, an incised band seems to suggest a hand with three fingers, a recurrent image in several other drawings.

The cross band, as well as other signs such as the belt, the girdle and the diagonal, are signs that render certain status, a social and maybe a religious rank. The cross band was a distinctive sign beginning with the first figurines in PPN, at Nevali Çori[205]. It was present in all the Neolithic stages[206] either incised, painted or rendered in relief.

[203] Horedt K. 1949, p. 52.

[204] Roska M. 1941, p. 253, pl. CIV.5; Hansen S. 2007, pl. 215/109.

[205] Hansen S. 2007.1, pl. 29; and others later, pl. 46.

[206] Lazarovici Gh. 1979, pl. XX/D9; Hansen S. 2007.1, pl. 250/10, 22; 255/1, 271/1; 321/3; 325/5–7; 328–329; 377; 407; 461–469; 472; 2007.2, pl. 8/8, 82/6, 493, 494/3, 495/2, 4, 6, 8.

Fig. VI.11a–b. Turdaș, zoomorphic pot (published by M. Roska 1941, CIV.5).

Fig. VI.11c. Tărtăria, asymmetric cult pot.

Altars

There is a series of pieces called "small altars" which at Tărtăria are not as frequent as in other sites such as Gornea or Balta Sărată[207].

One, from I. Pau's excavations; is a fragment of a quadrilateral altar, but the drawing we have is not very good (**fig. VI.13**), so we do not know its exact position. Based on the paste, it belongs to Vinča A–B, and the motifs belong to the same age, presenting analogies with pieces at Gornea and Ostrovu Golu (Vinča A – Starčevo-Criș IV time)[208].

N. Vlassa published two other similar pieces (**fig. VI.14**) ascribed by him at that time to "Tisa"[209]. Their quadrilateral shape, the well fired paste, the human-head protuberance at the rim and sometimes at the corners are related with the same Vinča A3 – Starčevo-Criș IV horizon, having similar analogies as above[210], as well as at Miercurea Sibiului[211], Liubcova and other places[212]. Such protuberances and raised rims will develop in the Zau II phase.

We should mention that the cult pots often have diverse drawings on the body and, on certain areas, some asymmetric signs, separated by the décor.

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207 Lazarovici Gh. 1977, pl. LXIV/1–8; 1979, pl. XXK/3.

208 Lazarovici Gh. 1979, pl. XB .

209 Vlassa N. 1976, p. 43, fig. 11.

210 Lazarovici Gh. 1977, pl. LXIV/1–7; 1979, p. XB.

211 Pit 8: Suciu C. 2009, p. 113, fig. 157.

212 Luca S. A. 1998, p. 209, fig. 43/3. These horns are absent on the pieces in Banat and Transylvania or were replaced by smaller ears and two orifices on the top of the head (fig. VI.12/1, 3). It is a local evolution from Vinča A, as we have mentioned. In one case, the trace of an ear can be seen (fig. VI.10/3).

Fig. VI.12. Tărtăria, a small altar for lighting, Surface A, –0.65–0.90 m.

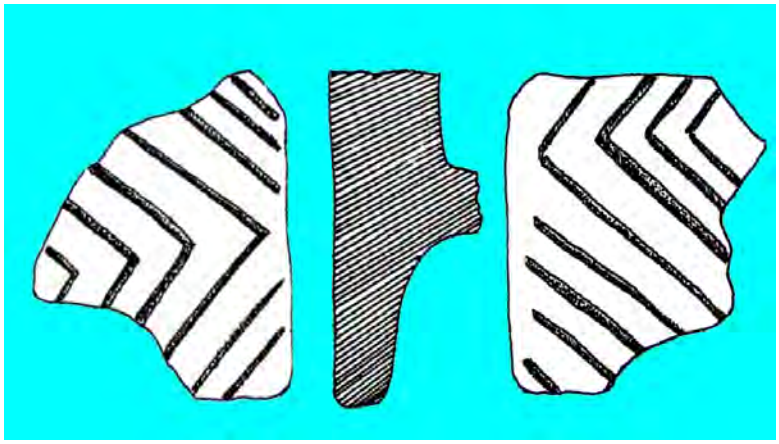


Fig. VI.13. Tărtăria, small altar (redrawing after I. Paul 2007).

Fig. VI.14. Tărtăria, fragment of a cult pot (small altar).

A sherd from a four-legged small altar, with a handle for gripping and used for lighting (**fig. VI.12**), was discovered in K. Horedt's excavations.

This sort of handle is also present in the Turdaș culture [213] and on the Vinča idols (see below).

We think that, due to its shape, the small altar should be seen in connection with the sacred liquid. It was difficult to fix a piece of thread in it that sucked up oil so that the lamp could burn, but it was suitable for keeping the sacred liquid (irrespective of its use). Its asymmetric shape resembles the askos pots.

Pot lids

They are characteristic for the Vinča culture, but their evolution in Banat and Transylvania during Vinča B phases does not follow the Serbian situation, where this sort of lids have horns elevated above the top. In Vinča A3 pit houses at Miercurea Sibiului there are such pieces with a hole at the top of the head and without horns[214].

Fig. VI.15a. Tărtăria, pot lids.

Fig. VI.15b. Tărtăria, pot lids.

It is possible that the piece from fig. VI.15.a1 had had horns. Another piece has an exceptionally rare linear decoration on top of the head. On another fragment a triangular eye is rendered (**fig. 15.a2**).

The triangular shape is related with the cult of light, being quite frequent on idols, pot lids, altars and others[215].

We do not believe the breaking of the horns is accidental; it has a meaning and was used for idols, such as the pieces from the ritual pit, where a ritual breakup is noticed. Such ritual breaking is generally followed by the utilization of part of the pieces as offerings for foundation or abandonment ceremonies.

We have extensively written about this topic, and other colleagues have often signaled similar instances[216] of ritual breaking; some parts were buried after the breaking, either separately or together[217].

[213] Hansen S. 2007.1, pl. 279/6, 9.

[214] Suciu C. 2009.

[215] Lazarovici Gh. 2004–2008, Annex I, Table 1 a, b, f.

[216] Ritual breaking and offerings: a) **foundation:** Lazarovici Gh. 2006, p. 3, 20, 21, 22, 41, 42, 146, 167, 170, 350, 357, 438, 561; 2009b; 2007, p. 24, 55, 60, 61, 91, 115, 132 , 133, 158, 161; Lazarovici Gh., Lazarovici Cornelia-Magda 2009, p. 244, 255; Lepenski Vir related to the fireplace: Srejović D. 1969, Pl. 3, 6, 11, 16–18, 20, 23, 29 32, 35–36; fig. 9–10; Suciu C. 2009, foundation p. 133, 137, 161, 210, 279; Parța – Casa Cerbului: Lazarovici Gh., Merlini M. et al. 2006; Păuleni *house L5* breaking of a zoomorphic idol and depositing part of it in a post hole (excavations Buzea D. – Lazarovici Gh.); b) **ritual breaking of the head:** Monah D. 1997, p. 202–203; Luca S. A. 2002, p. 15–28, fig. 1, photos 1–2; c) **abandon:** Lazarovici Gh., Maxim Zoia et al. 1996, p. 102; Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 52, 61 a.s.o.

[217] Donja Branjevina, Karmnski S. 1989, fig. 5.

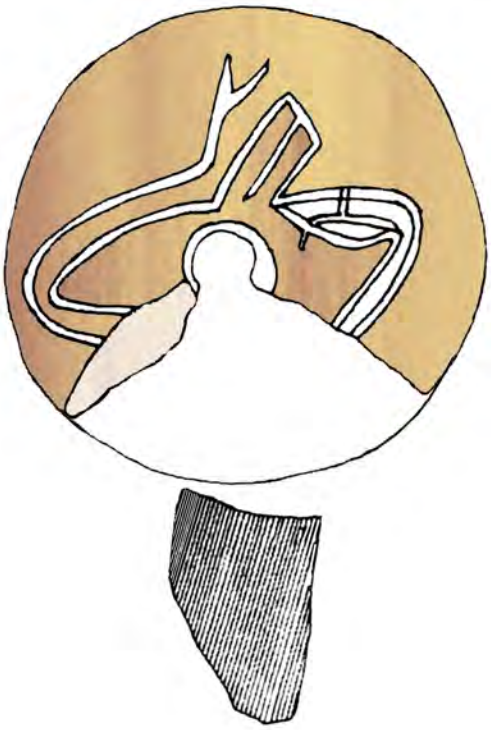


Fig. VI.16. Whorl of type a, with a snake.

Whorls with signs

We distinguish two sorts of whorls: *a)* a bigger one used for twisting the fiber into string; *b)* a smaller one used for spinning the fiber. Through their shapes and rotation movement, in one direction for whorls of type *b* and in both direction for whorls of type *a,* these types of pieces reminded the prehistoric people of the movement of sun, moon and stars. Because of that, some of these pieces have several signs and symbols on them. Many pieces discovered at Turdaș, for example, bear on them allegories (the sacred numerology, the house, the abstract signs, the man, and the constellations[218]) regarding myths and legends which have mostly remained unknown.

There are certainly myths, legends and allegories behind these signs, difficult but not impossible to perceive, because the location of other signs allows us to outline the main themes and ideas. Iuliu Paul published such a piece on which a water bird is rendered (a swan because the very long neck)[219].

There are such representations in the sanctuaries in the mountains, for example the representations on the megalithic stones, on the Teasc Mountain (located between Ditrău, Sărmaș, Borsec)[220]. To us, the drawing in fig. VI.16 suggests the idea of a snake associated with a fish, therefore the idea of a big, primeval water, and the snake with wings suggests the sky, the cosmic snake [221].

The snake incarnates the inferno, the underworld, but at the same time it is the one in search of the light. The earliest representations of the snake are in PPN at Nevali Çori sanctuary 2 Building 13 but not only[222]. In other Neolithic civilizations there are many representations of the snake[223].

Fig. VI.17. Whorl with figures and signs.

Fig. VI.18. Whorl with signs.

[218] *The Danube Script* 2009, part II: cat. 18, 21–68 a.s.o.
[219] Paul I. 2007, pl . IX.1.
[220] Kovács Șt. 1914; Bakó G. 1962; 1964; Lazarovici Gh. et al. 2011a, comments and details.
[221] Lazarovici Cornelia-Magda 2009, p. 247, 250, 253.
[222] Hauptmann H. 2007, p. 87, Katalog 2007, fig. 96; Hansen S. 2007.1, pl. 30; Dumitrescu VI. 1968, fig. 48, cat. 48; Müller-Karpe H. 1974, III, Kat. 115, pl. 343/4–5: Karagheorghis J. 1977, p. 34, 36, 41–42, fig. 13a; Gimbutas Marija 1984, p. 76, 97–98, fig. 41, 50, 54–60, 63–65; Ovchinnikov E. 1996, p. 115–119, fig. 1; Monah D. 1997, p. 207.
[223] Lazarovici Gh. 1985b, p. 26, fig. V/39.

In Petru Balosin's collection there are two clay weights, one from a fishing net, the other from a whorl. The one used with the fishing net presents several signs, but the meaning of some of them remains unclear to us, while others are common signs in the Vinča decoration.

One of the figures looks like a plumed snake, the other one like a human figure with a quadratic head oriented towards the left and with the hands in invocation (**fig. VI.8**). The whorl has a two-line decoration, whose meaning remains unclear to us. In the Turdaș culture there are different sorts of snake representations, the most common being the double snake (maybe related to the good and the evil)[224].

The anthropomorphic pot

K. Horedt describes some cult pieces discovered in Surface C and later on published by N. Vlassa in his stratigraphic-chronologic table "*...at 0.35 m there was a pot fragment with a human face in relief similar to the ones at Turdaș and between 0.50–0.60 m there were sherds of zoomorphic and anthropomorphic pots*"[225].

Idols

The marble idol (IN 14877, fig. VI.19a–c) was discovered in Surface A at –1.40–1.60 m, which normally corresponds to the Vinča A layer, with the exception of the area of the pit house, where the ground is beaten. Thus, if the piece comes from this area, it can be ascribed to Vinča B1.

Fig. VI.19.a–c. Marble idol.

The manner of rendering with a very long neck is characteristic of the idols of the phases Vinča A–B; such pieces are common especially at Gornea and Zorlențu Mare[226].

There is at Gornea the head of a marble onager (*Equus hemionus onager*) scepter and another one at Liubcova, in levels Vinča A[227] (**fig. VI.20**). As they are related to some meanings of the qualities of the material, the marble pieces are not a common presence, as in the case of *Spondylus*. The onager or horse head at Gornea and the horse head at Liubcova are probably parts of a scepter, the head of a rod, as an object of prestige for the bearer. There are several such pieces in different parts of the Romanian territory, and some of them are overlooked or considered unknown objects, therefore it takes courage to demonstrate such an idea and functionality, the way Fl. Drașovean did with a scepter head[228].

[224] Maxim Zoia et al. 2009, p. 155–156, cat. 120–128; Lazarovici Gh., Lazarovici Cornelia-Magda 2009, p. 247, 253.
[225] Horedt K. 1949, p. 51–52.
[226] Lazarovici Gh. 1977, LXV/4; 1979, pl. XXA/4, B1–5 a.s.o.
[227] Lazarovici Gh. 1979, pl. XXC/1; Luca S. A. 1998, p. 203, fig. 36/4.
[228] Drașovean Fl., Topolovcici M. 1989. After this, such pieces were identified in the Cucuteni culture as well as at the Drăgușeni and Trușești sites: Lazarovici Cornelia-Magda et al. 2009, p. 19, fig. 13,110, fig. 3.

Either from N. Vlassa or Kurt Horedt's excavations originates the head of an idol with a moulded face. This sort of moulding/ shaping is characteristic for the Late Neolithic or Copper Age. N. Vlassa placed it at the ***Petrești – Turdaș*** level.

From K. Horedt's excavation, Surface A, 0.90–1.15 m, Vinča B, there is a fragment of a feminine idol, a bust, with the arms sketched and perforated so that it could be worn or hung. Other two anthropomorphic idols were discovered in I. Paul's excavations[229] one of them is cylindrically shaped and has a triangular mask for its face (**fig. VI.23–24**). Its cylindrical shape suggests a Vinča A stage, but the nape pulled backward has correspondents at Balta Sărată, Zorlențu Mare and other places[230].

The second (**fig. VI.21b**) has similar analogies, only that we think its left profile is not correctly drawn, since such anomalies are not noticed on idols.

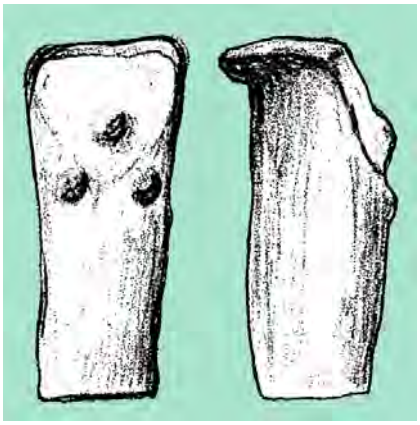
Even though the lot of pieces at Tărtăria is small, it shows a similitude with the Banat area, which is very important for the evolution from Vinča A to B phases. Some pieces dated during the Vinča B phase also show a connection with the discoveries at Miercurea Sibiului as well as a local Transylvanian evolution that preceded the arrival of the Turdaș communities that bring with them new southern elements (such as perforated idols, idols on thrones, and others).

Fig. VI.20. a) Gornea, Vinča A, marble scepter rendering an onager; b) Liubcova head of a wild horse.

Fig. VI.21. Bust of a feminine idol from Surface A.

[229] Paul I. 2004–2009, p. 135, fig. 3; 2009.
[230] Lazarovici Gh. 1979, pl. XXD 1–2, 5, E3, H1, K11 a.s.o.

Fig. VI.22. Head of an idol, after N. Vlassa 1963.



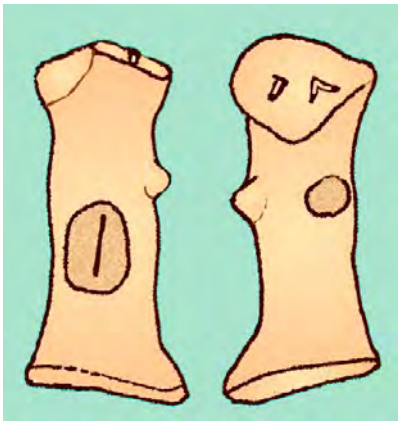


Fig. VI.23–24. Cylindrical idol after I. Paul 2007.

Due to decorations such as notches and wide incisions on top of the head, the idol head (fig. VI.22) published by N. Vlassa has analogies with Vinča C pottery from Serbia; but in this case the face shaping technique is different from its Serbian counterparts.

In this case even the mask is special, reminding of the Late Neolithic pieces. The shape of the eyes is similar with the the Turdaș, as well as the Vinča pieces.

CHAPTER VII
RITUAL–FUNERARY COMPLEX AND THE TABLETS

In September 1961, the 25-year old N. Vlassa recovered from a pit excavated at the Neolithic site of Tărtăria – Groapa Luncii three little, inscribed tablets of baked clay together with a pile of offerings which were associated with the bones of a mature human being, estimated to be 35–40 years old[231].

Here it is in synthesis the evocative scenario outlined by the archaeologist in charge[232]:

- a cultic offering composed by objects and bones lay at the bottom of a ritual pit which was located in the deeper layer[233], in the sterile loess, from the first and oldest cultural level[234];
- the bones appeared "scorched and disjointed, some of them broken" and they belonged to an individual about 35–40 years old;
- the pit was evidently a "magic-religious pit... filled of an ashy earth"; the pile of objects found at the bottom of it was a "sacrificial offer";
- the discovery was "the only magic-religious complex... of this kind in the Turdaș culture areas";
- the dead person was someone involved in magic and religion who was cremated during a sacrificial ritual;
- the burnt, broken and disarticulated bones were "the remains of a sacrifice, accompanied by some kind of ritual cannibalism"[235];
- two of the tablets are rectangular, one is round. The first tablet "has the form of an irregularly rectangular plate, measuring 5.2×3.5×1.6 cm."[236] The second, similarly shaped and slightly convex in section, "bears a round hole and measures 6.2×3×0.9 cm."[237] The third, "discoid and pierced by a round hole measures 6.1×6×2.1 cm."[238] Signs are inscribed on the tablets only on one face. The archaeologist made note in the excavation report that one tablet "bears a (hunting?) scene, and the two others extremely curious signs placed on several rows"[239];
- the signs incised on rows on the tablets "may be taken for a rudimentary writing... at least the rudiments of an ideographic notation"[240].
- the hoard of offerings which accompanied marked plates and human bones consisted of 26 burned-clay statuettes – or their fragments – with triangular head and cylindrical-or-prism-shaped body, two Cycladic-like alabaster idols and a spondylus shell bracelet; the pile of offerings accounted in total 32 objects, tablets included.

N. Vlassa published only 11 of the impressive finds belonging to the ritual complex, tablets included, while in the inventory of the museum he listed 12 objects under the address "groapa rituala". The other objects are still now unpublished and the main regret is that most of them are not even findable. In the National History Museum of Transylvania at Cluj the showcase dedicated to the Tărtăria ritual complex displays only 10 artifacts: the copies of the three tablets, five clay figurines, one alabaster statuette and the bracelet.

Making a systematic research in the storage rooms of the museum in order to try to find the missing artifacts belonging to the ritual grave, we have found one more sure object belonging to the pit and one unsure but presumable. All the pieces are broken, intentionally and possibly ritually, and deposited in the pit as incomplete items. Only the tablets are entire and bedded as complete items.

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231 Vlassa N. 1963, p. 492.
232 Vlassa N. 1962; 1973; 1976; 1977.
233 Vlassa N. 1963, p. 490.
234 Vlassa N. 1976, fig. 3.4; 1977, p. 13.
235 Vlassa N. 1976, p. 31.
236 It actually measures 5.3 × 3.6 × 1.15 cm.
237 It actually measures 6.3 × 3.15 × 0.85 cm.
238 It actually measures 6.1 (height) × 6 (large) × 2.1 cm.
239 Vlassa N. 1963, p. 490.
240 Vlassa N. 1963, p. 492.

The Tărtăria tablets are dubiously dated archaeological artifacts due certain inadequacies in the reporting of the discovery by the archaeologist in charge. In 2002 – 2011 research, Lazarovici Gh. and Merlini solved the problematic points for a large part thanks to new information. They published the in progress results through several studies.[241] Further evidence is provided in the present book. The circumstances of the discovery have been completely revised and the precise location of the deposition has been established. The stratigraphy of the trench where the pit was unearthed has been settled. Plan and profile of the excavation has been reassessed. Speculations that intrusive deposits from later periods have damaged or disturbed the primary context of Tărtăria remains have been documented as inconsistent, whereas the "closed" nature of the burial context has been evidenced.

In the Developed – Middle Neolithic of Southern-Central Europe, not every corpse received individual and partial secondary burial in a sacralized pit-grave. Therefore, in the present chapter we focus on three key issues concerning the ritual pit-grave. First, we challenge the postulated scenario concerning the occurrence of charred human being, a sacrificial worship, and an anthropophagus ceremony. We present instead a secondary burial with connected ritual. We identify also corpse's identity.

Second, the stratigraphic situation that we settle up allows a direct association between the tablets and the other finds as belonging to the early phase of the Vinča culture. We make a revision and reinterpretation of the evocative grave furnishing as liturgical paraphernalia, personal adornments, and funerary anthropomorphic marks of the dead person. Kin and community re-deposited into the pit-grave a hybrid body made of selected skeletal/artifactual fragmented remains packed together with three inscribed tablets which were the only complete items. It was the creation of an alien bone/clay/spondylus/stone skeleton suitable for an ancestral state. Other fragments of body and artifacts possibly circulated as relicts among people.

Third, we present the tablets as devices to store magic-religious and mythical knowledge and rituals through the association of signs and symbols.

VIIA. The enigma of the charred human being, the cultic sacrifice and the cannibalistic ritual[242]

Marco Merlini

A sacrificial ritual, an anthropophagus ceremony, a conflagration?

As we have already mentioned, in Vlassa's excavation report the pit was filled with earth and ash, the bones laid at the bottom appeared "scorched and disjointed, some of them broken" and they were supposed to be associated with the three clay tablets covered with strange signs and a small pile of offerings. These three key observations directed him to interpret the pit as a "magic-religious one"; bones, tablets and objects as a "sacrificial offering"; the human being as a great priest or a shaman that was cremated during a sacrificial ritual[243].

N. Vlassa's hypothesis was based on unstable archaeological ground but was less eccentric than many scholars think. At first, his impression that the bones had been burned might be related to the spongy and foamy aspect of some of the big ones, with holes and swellings. Not having in mind to make anthropological analysis, the archaeologist in charge did not wash the bones.

Regarding human sacrifice, this ritual was occasionally exercised in the Transylvanian Neolithic to ask for the protection of superhuman forces. There is much archaeological evidence that reveals, in a very concrete way, such a bloody practice. A not so rare custom was to execute a human being as a foundation sacrifice when a new building of any importance was started. At Parța, Banat culture, level 6, there are many cases of foundation offerings in the buildings, especially in the sacred ones. Three small pots with bones have been discovered in the foundation of the east wall of House P8, dwelling next to the Sanctuary II[244]. Gh. Lazarovici and M. Merlini have also unearthed fragments of human jaws in level 7a, pit house 30, and in hut 29[245] and remains of human bones in other foundation pits, too. In the river

[241] Lazarovici Gh. and Merlini M. 2005; 2008; Lazarovici Gh 2003a; Merlini M. 2004b; 2006c; 2008a; 2009a; 2009b; 2009d; Merlini M. and Lazarovici Gh. 2008.

[242] Marco Merlini has made photos of this section.

[243] Vlassa N. 1962.

[244] Lazarovici Gh. et al. 2001, p. 111.

[245] Lazarovici Gh. et al. 2001, p. 88, 275.

border, eastward from the site, the bottom of pit III under the plastered floor from a Tiszapolgár pit-house yielded a quarter of a skull belonging to an adult male individual[246]. At Cucuteni A3 site of Scânteia, 173 fired and not-fired fragments of human bones have been discovered in the area of the houses or pits[247].

The burial at the base of the pillar in Căscioarele sanctuary was probably a ritual foundation murder, and also the child-corpse interred under a Turdaș dwelling after a bloody sacrifice. In the latter case, the offering of a pure and perfect creature as a child was a necessary step to consecrate the edifice. However, also the opposite pole occurs in the Danube civilization: the foundation sacrifice of malformed children. A five or six year old child with a deformation of the skull and spinal column was curled up in a basket – hands and feet tied forcing him into a contracted posture – and buried in a little pit on the top of the tell of Hârșova (Romania). This was found in 1993 during an archaeological program of French-Romanian collaboration between the Ministry of Culture/Francophone (Directorate of Cultural Inheritance and Sub Directorate of Archaeology), and the Romanian Ministry of Culture. From the preserved excrement found about the rectum, the researchers deduced that this was undoubtedly a deliberate death. The corpse was located among the foundation trenches, along the support posts of a large building. Are we in the presence of a ritual foundation murder connected with a sacred voluntary act of eugenics? According to the French-Romanian team, this hypothesis is supported by evidence at other tells.

Confident to have under observation the burned remains of a sacrificial ceremony, the excavator of Tărtăria jumped to the unproven conclusion that a cannibalistic ritual had taken place[248]. This hypothesis was based on weak circumstantial evidence but was not too weird, because a number of anthropophagous ceremonies have been documented in the same region. They were performed to communicate with divinities and spirits. In the dwelling B2/1994 at Orăștie–*Dealul Pemilor*, only a few kilometers from Tărtăria, remains of roasted human bones and crushed big bones for extracting the marrow have been discovered. They belong to the Turdaș culture[249]. Fragments of cranial skullcaps attributed to cannibalism have been found also at the Turdaș settlement itself[250]. Two skullcaps have been cut just over the ocular arcade to hold them on the palm and use for libation. In this case, the bones have not been used as food but as a tool[251].

During an excavation carried out by Newcastle University in 1999, at the medium-size site of Bolgrad in Ukraine (the earliest manifestation of agricultural settlement in the steppe area east of the Danube Delta), an anomalous large fragment of a human skull was found. It was positioned among potsherds and animal bones in a semi-subterranean dwelling related to a local variant of the Gumelnița culture, Stoicani-Aldeni-Bolgrad[252] that emerged at the beginning of V millennium BC colonizing extensive agriculture regions northeast of the Black Sea. The bone consisted of an incomplete right parietal that belonged to an adult individual. The way it was handled is worthy of note in comparison with the condition of the bones from Tărtăria. Preliminary examinations at the Laboratory of the Institut de Paléontologie Humaine in Paris identified traces of scratching on the surface of the skull and three small artificially perforated holes, elliptic in cross-section, that have been interpreted as evidence of cannibalism[253]. Subsequent analysis suggested that the body was first decapitated, and the head placed into a container with boiling water. The manual work into the cranium with the employment of a sharp copper awl was intended to avoid damage to the brain after the corpse had reached the state of rigor mortis. The brain was apparently the desired organ. The behaviour was sharply animated by the wish to reach the only part of the head deserving of interest. These traces of preparation of the head indicate the first stages of an anthropophagic funeral meal probably organized around the members of a family. The archaeologists in charge suggested that, since the brain is universally recognized as an embodiment of thought, experience and individuality, its extraction aimed at ingestion and incorporation might be deemed as a component of ceremonies implying the appropriation of qualities of the deceased in a domestic context. They speculated about a ritual scenario consisting of an invitation of the kin of the dead to a community meal that included consumption of the matter embodying the soul through an authentic communion. The skilled handling of the bone suggests anatomical knowledge of skull and brain that is hardly achievable

246 Lazarovici Gh. et al. 2001, p. 275.
247 Lazarovici Cornelia-Magda et al. 2003, p. 297–306.
248 Vlassa N. 1963, p. 492; 1976, p. 31.
249 Luca S. A. 2001, p. 48.
250 Luca S. A. 2001, p. 49.
251 Luca S. A. 2001, p. 49.
252 Subbotin L. 1983.
253 Dolukhanov P. 2000.

without regular practice in autopsy and a high technical perfection in cranial disarticulation that implied special procedure and instruments. Knowledge of human anatomy, appropriate technique, specialized instruments, and skilled practice envisage the existence of an experienced operator. This individual pre-treated the skin of the deceased, dismembered the body, separated the head, collected the blood, started the fire, boiled water, and then carefully extracted the brain. The sophisticated post-mortem skull surgery that was perpetrated at Bolgrad and its ritual character indicate an officiating adept, i.e., the presence of a social caste endowed with the double function of therapist and priest in relation to magic-religious practices focused on the care of body and spirit[254].

The burial site of a child unearthed at the Hârșova tell was previously mentioned. Ritual cannibalism at the site was suggested by the discoverers because of the scattered human bones found among the remains of meals and various refuse in domestic waste zones. A case of cannibalism (H11/1974) is recorded from the Neolithic settlement of Těšetice – *Kyjovice* (Znojmo district in Czech Republic), which belongs to the Linear Pottery Culture[255]. SEM (Scanning Electron Microscopy) provides evidence of Neolithic anthropophagy in human bones discovered in southeastern France at Fontbrégoua Cave and assignable to a period dated from 6,000 to 7,000 years before present[256]. This conclusion was however contested, and an alternative hypothesis of secondary burial has been proposed[257].

Fuelled by the case of the LBK enclosure at Herxheim, near Landau in the Rhine Valley, further evidence of anthropophagous practice during the Neolithic in the wide area of Central-Southeastern Europe is under discussion[258]. As in the Bolgrad case, the debate crosses the narrative imported from ethnography[259] concerning endo-anthropophagy vs. exo-anthropophagy. According to the first instance, the volitional ingesting of all or part of the corpse of a group member, mainly established in the form of mortuary or funerary consumption, was aimed to give an abode to the deceased's soul in the living bodies of members as a passionate act of affection and reverence[260], or for group renewal and reproduction[261]. In exo-cannibalism, the eating of someone from outside the group was an action of aggression or an apotropaic procedure against misfortune, often in periods of violence and warfare[262].

Concerning Tărtăria, some scholars challenged Vlassa's interpretation of a cannibalistic sacrifice and suggested that the human being was probably a priest, a shaman, a spirit-medium or a high dignitary[263] who died in a fire and was buried with ritual articles he valued while alive. Other scholars speculated that he was the supreme priest and he had been burnt as he finished his serving time, according to the Sumerian tradition, as a sacrifice honoring the great God Saue[264].

What actually happened at Tărtăria?

What actually happened at Tărtăria? A conflagration? A sacrificial ritual? A cannibalistic ceremony? Not any of them. Even if osseous remains are actually fragmented, anatomically incomplete and have a dark brown color with spongy traces, neither a fire, nor a sacrificial ceremony, and nor a anthropophagus rite happened[265].

First, in case of both ritual and secular cannibalism, some selected remains occur, in particular from head, arms, and legs. In the excavation at Scânteia (Moldavia, Romania), some remains from a skullcap and arms have been found[266]. Iclod (Cluj County, Romania) yielded a buried beheaded man holding a portion of his skullcap in his hand. Regarding the bones from the ritual pit at Tărtăria, Gh. Lazarovici and M. Merlini have found a too wide range of bones and many of them are useless as food (i.e., ribs, hip-girdle and vertebras). Moreover, Gh. Lazarovici and M. Merlini did not find any skull fragment.

254 Dambricourt Malassé A., Dolukhanov P., Séfériadès M., Subbotin L. 2009.
255 Koštuřík P., Lorencová A. 1989–1990; Smrčka V. et al. 2005, p. 320.
256 Villa P. et al. 1986, p. 431; Villa P., Courtin J. 1991; Villa P. 1992.
257 Pickering M. P. 1989.
258 Orschiedt J., Haidle M. N. 2006; Gronenborn D. 2006; Golitko M., Keeley L. H. 2007; Price T. D., Wahl J., Bentley R. A. 2008; Koutrafouri V. G. 2008: 191; Boulestin B. et al. 2009, p. 968–982; Haack F. et al. 2010.
259 Brown P., Tuzin D. 1983; Goldman L. R. 1999; Lindenbaum S. 2004.
260 Glasse R. 1963, 1967; Lindenbaum S. 1979; Conklin B. A. 2001.
261 Hertz R. 1960: 32–33; Gillison G. 1983; Meigs A. S. 1984.
262 Knauft M. 1999, p. 103; Ernst T. M. 1999, p. 144; Yi Z. 1993; Sutton D. S. 1995; Gronenborn D. 2006.
263 Chapman J. 1983.
264 Tonciulescu P. 1996.
265 See evidence and documentation in Merlini M. 2004b; Lazarovici Gh. and Merlini M. 2005; Merlini M. 2006; Lazarovici Gh. and Merlini M. forthcoming.
266 Lazarovici Cornelia-Magda personal communication.

Second, in a cannibalistic banquet the human bones are scattered on the ground among the remains of meals, sometimes discarded in domestic waste zones or crushed by dogs[267]. In Tărtăria, they were packed and accompanied by ritual artifacts that belonged to a much-respected person in the community. Third, the bones were broken in a natural way and not, for example, crushed to sever muscles or to extract the marrow as at Orăștie–*Dealul Pemilor*.

Finally, the bones are not burnt. The fragments of the big bones have foamy traces and show a dark brown color; therefore, it was legitimate to suppose that they suffered from thermic stress. This could have implied the partial or total carbonization of the collagen through charring, converting it into elementary carbon. Cremation experiments have documented the brown or black color of incompletely incinerated bones indicating that they were burned "dry", or had the flesh removed before burning[268]. Gh. Lazarovici and M. Merlini sought chemical and anthropological expertise. Chemical tests at the Laboratory of the Department "Scienze della Terra" of La Sapienza University in Rome have, on the contrary, excluded the process of converting the bones into carbon when the organic components begin to be carbonized. The bones are not crystallized. The dark brown color is due to the absorption of oxygen hydrate and insoluble humates coming from the burial place. At Tărtăria the bones were affected by soil because the pit was filled with earth.

The working hypothesis of Gh. Lazarovici and M. Merlini is that the charred-like color of the big bones and the "exploded" appearance of some part of them are also due to the process of decarnation that predated the secondary interment. We do not think that the preparation of the corpse happened as an excarnation by processor dismemberment. There are no clear signs of knife, razor, blade, bird beak, claw, or animal fang.[269] The act of depriving or divesting the bones of flesh was made by the simple decomposition of the body during the first burial stage (through temporary internment, or covering the corpse with earth or stones until the soft tissue had completely decayed), or exposing it to natural events possibly on a platform protected from scavengers, allowing the flash to rot away.

A similar situation was recognized in the Late Mesolithic site of Schela Cladovei (on the Romanian bank of the Danube), where individual human bones that possibly resulted from this kind of decarnation were carefully disposed in single graves[270]. For example, human remains to the north of a structure comprise an articulated adult skeleton without skull in grave M52, a pair of articulated lower legs/feet in grave M55, and a pair of articulated lower legs without feet in grave M56. Among articulated skeletons, numerous disarticulated bones of individuals have been recovered. It is under debate if they are disturbed older burials or intentional burials of defleshed bones and body parts. In addition, some researchers discuss the defleshing method employed in the Iron Gates[271]. However, there is no persuasive evidence for the practice of depriving or divesting the flesh[272]. In particular, there is no distinct mark left on the bones by scavengers[273]. Disarticulated skeletal bones deliberately interred subsequent to decarnation occur at the nearby site of Vlasac (on the Serbian bank of the Danube). The evidence from these two sites in the Iron Gates relates mainly to a restricted period between 7100 and 6300 BC.

One of the methods of decarnation employed by the tribes of North Australia described by W. Chesling gives some food for thought on the Tărtăria occurrence: "The deceased is painted and dressed, then buried in the earth or placed on a special stage, or affixed to a tree. Later on, the deceased's relatives pick up the bones and keep them until they find it possible to place them into a grave pillar decorated with ornaments".

One cannot exclude the presence at Tărtăria of a very delicate mechanical bone cleaning of soft tissues beside the secondary burial some time after the first funeral. Fingernails might have been used, for example, as in the tribe Chokta that settled in the southern part of North America. It was a duty of a specially chosen man to clean gently with his fingernails the bones of a deceased tribesman two to

267 Popovici Dr. et al. 1998–2000, p. 114.

268 Buikstra J. E., Swegle M. 1989.

269 In the same region, excarnation – the removal of the flesh from a corpse leaving only the bones – was present for a long time. Excarnation was even typical in tumuli of the Late Coțofeni culture in instances such as Tumulul Mare from Tureni, Petrești de Sus – *Pă Grădini*, Săndulești (Ghicenghe) – *Suliheghi*, and Săndulești (Ghicenghe) – *Dealul Căcădării*. All of them are in the district of Cluj (Lazarovici Gh., Meșter M. 1995; Lazarovici Gh. 1997). Investigating comparative evidence from Çatalhöyük in Central Anatolia, K. Bačvarov maintains that the most probable practice in the Bulgarian Neolithic was excarnation, rather than decarnation or dismembering (Bačvarov K. 2003).

270 Bonsall C. 2008, p. 257, fig. 10/4.

271 Radovanović Ivana 1996.

272 Bonsall C. 2009, personal communication.

273 Bonsall C. 2008, p. 257.

four months after death. The flesh was burned and the bones ultimately buried within a year. In the South American tribe of Bororo, the primary funeral takes place on the second or third day after death, interring the corpse not far from water. It is exhumed 14 days later, the flesh is delicately removed from the bones and then, during a feast, the skeleton is decorated and prepared for the final secondary burial.

If at Tărtăria the big bones of the individual belonging to the tablets have a burnt-like color, the little bones show an off-white color such as those from the chest and the shoulder blade. This coloring might be related to long exposure under the sun's rays during the defleshing process[274]. Similar situations and rituals have been recognized from the end of the Coțofeni culture up to the Early Bronze Age[275]. Our hypothesis has been supported by the anthropological expertise of Georgeta Miu[276].

Only one bone, belonging to the thigh of an animal, shows traces of scorching and it was mixed in amongst the human bones, which do not have any evidence of burning[277]. Human bones and animal might have been placed together during the inhumation process, possibly in relation to rituals and meals aimed to remember and worship a person who possessed some special and/or secret knowledge and to institute this respected individual as a terrific and venerated ancestor.

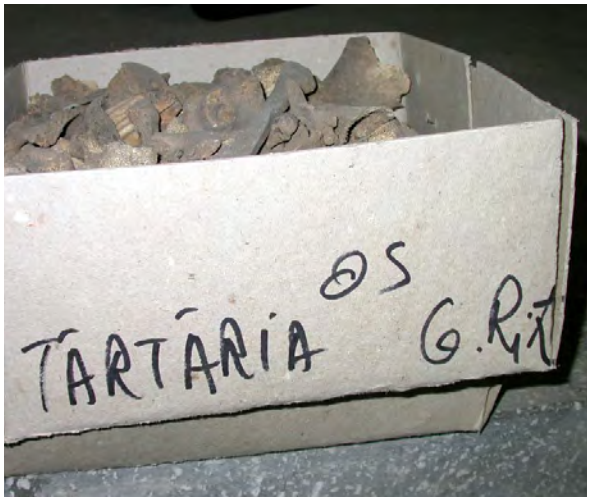


Fig. VIIA.1. The inscription on the box: OS (Romanian for bones); G. Rit (= groapa rituală i.e., ritual pit).

Fig. VIIA.2. The fragments of the big bones are of a dark brown color and some parts of them have an "exploded" appearance as if they had being burnt, but this was not the case.

If the bones are not charred, the other two traditional hypotheses advanced to interpret the special burial at Tărtăria fail: an accidental death by fire or a cultic sacrifice of the corpse by fire.

The puzzle of the corpse's identity

In the foregoing literature, the bones found within the ritual pit at Tărtăria are assumed to have belonged to an adult man (30–40 year old[278]) believed to have been a priest, a shaman, or a high dignitary because of the associated artifacts and the cremation ritual designed for a very special person[279]. Nevertheless, the Prehistory Knowledge Project requested an anthropometric analysis from the Centre for Anthropological Research of the Romanian Academy of Science at Iași where it was ascertained that the bones belong to a female individual who was very ill and very elderly for the standards of that times. The skull and pelvis are missing (from the latter there are only some fragments), so that sex and age determination of the subject has some limitations. However, the inventory of bones contains pieces and fragments from the scapula belt and superior members, from the pelvian belt and the inferior members, some fragments of the vertebral corps, as well as fragments of ribs. Let us outline an identikit of Milady Tărtăria on the basis of the anthropometric analysis made by Dr. Georgeta Miu from the Center of Biological Research which belongs to the Romanian Academy, Iași branch.

274 Lazarovici Gh., Merlini M. 2004.
275 Lazarovici Gh., Kalmar/Maxim Zoia 1987–1988; Lazarovici Gh. 1998; for the decarnation of Tărtăria bones viz Merlini M. 2004b.
276 Lazarovici Gh., Miu Georgeta 2004.
277 Lazarovici Gh., Miu Georgeta 2004.
278 See Makkay J. 1990.
279 Perlov B. 1975; Chapman J. 1983; Whittle A. 1996: 101; Tonciulescu P. 1996; Friedrich K. online.

Sex and age of the buried person

The metric and morphological features of the long bones (entire or fragmentary) and others (collarbone, vertebras, talus, heel bones, and fragments of the belt bones from pelvis area) permit their attribution to a mature female of 50–55 years old. The age was estimated based on: resorption of the spongy tissue, the aspect of the pubic area and some particular pathological degenerative processes that affected several bones.

Stature

The height is 147 cm, indicative of a small woman. It was calculated on the basis of classical known methods (radius, cubitus and tibia length).

Anthropological type

If skull and face bones are missed, all the available features of the subject (small height, gracility, low waist, and relief bone removed) indicate the Mediterranean type.

Paleopathological aspects

A degenerative process of the bones has been identified on the head of the right femur. Such a degenerative-arthritic process contributed to the modification of the diaphysis aspect of the bone (it is thicker and shorter) and caused a strong atrophy and anchyloze of the right coxo-femural articulation as verifiable in the image which compares the Tărtăria femur with a distorted one. The same degenerative advance is observable on three dorsal vertebras (6th, 7th, and 8th): their size is reduced to almost half of a normal vertebra because of the destruction of the tissue (on the right side). It is possible that this degenerative process affected also the ribs related to these vertebras (some fragments show this process). The lower part of the articular surfaces of the pubis shows a similar destruction process. The malformations that affected Milady Tărtăria did not cause neurological lesions.

Fig. VIIA.3. A Neolithic figurine kept at the National Museum of Athens matches the appearance of Milady Tărtăria.

The posture

Milady Tărtăria limped on her right leg since her youth because of her thicker, anchylosed and shorter right femur and leg. According to professor Roberto Arena, surgeon at the Villa Stuart clinic in Rome, the femur is without a neck. Therefore, there is a very high probability that Milady Tărtăria was affected by her devastating pathology since birth. She had a posture forming a > (an arrow) because of her degenerated, decalcified and fragile spine. She had also the tendency to angle towards the right because scoliosis had deformed the right side of her chest and the right shoulder. There is an unpublished Neolithic figurine kept at the National Museum of Athens that can give an idea of the disabled features of Milady Tărtăria.

Origin of the bone lesions

Retracing the origin of her bone lesions is impossible, but they are associated with an advanced osteoporosis. All these degenerative processes may have produced great pain to Milady Tărtăria and it is probable that suffering was a commonplace experience during the last 10–15 years of her life. However, the death of Milady Tărtăria can be related to other causes.

The osteoporosis that affected Milady Tărtăria was **probably an acquired disease** and not a mere 'silent **osteoporotic** degenerative **process**' that typically affects post-menopausal women and involves loss of bone mass**. S**upplementary expertise **rendered by** Dinu Oneț, radiologist and physician at the Neuro-surgery Clinics in Cluj-Napoca, Pier Paolo Mariani, director of the Traumatological Laboratory at the Rome University of Movement Science (IUSM), and surgeon at the Villa Stuart clinic and the abovementioned Roberto Arena, suggest some explanations for this kind of deformity. Radiological expertise and clinical analogies indicate at least three possibilities: gummatous osteoperiostitis,

osteomelite, or tuberculosis[280]. A form of syphilis, an ancient, endemic and not necessary venereal disease, has not to be excluded[281].

Fig. VIIA.4. A degenerative process of the bones has been identified on the right femur.

Fig. VIIA.5. A distorted vertebra.

The ribs that seemed to N. Vlassa to be burned present analogies with classical cases of gomosa periostitis proved by Roentgen, the pseudotumoral shape. Osteoperiostitis is a skeletal lesion of infectious origin that commonly appears on the major long bones and involves the periosteum surrounding the bone, the cortical bone and medullary cavity. Usually the femur, tibia, and fibula are affected by the periosteal reaction[282]. This condition is the apposition of new bone on cortical surfaces. Therefore, it is found as osseous plaque-like sheets with demarcated margins, swollen shafts, and irregular elevations on bone surfaces[283]. The presence of osteoperiostitis is very informative about patterns and levels of community health in the human past[284] as well as social conditions and activity patterns[285]. In fact, this type of lesion is caused by traumatic injuries, either accidental or due to intentional violence, or by bacterial infection from Staphylococcus or Streptococcus organisms[286]. Osteoperiostitis is often widespread in individuals with nutritional deficiency diseases such as scurvy[287] and increases with population density[288]. Most of the Neolithic population from Sultana – *Malu Roșu* (Călărași County, Romania) studied by A. D. Ion and A. D. Soficaru appears to be affected by this illness[289]. However, the absence of osseous plaque-like sheets on Milady Tărtăria's bone fragments weakens the gummatous osteoperiostitis hypothesis.

Pyogenic osteomyelitis is a severe and chronic inflammation of bone or bone marrow that is identified by a thickened contour in the area of a fracture and often by a heavier feel to the bone[290]. It

280 Gh. Lazarovici, Georgeta Miu 2004; information from dr. Constantin Oneț, radiologist; references Merlini M. 2004a; 2009d; Lazarovici Gh., Merlini M. 2004/2005: 208–210, and images. We have asked the opinion of other important specialists, such as prof. univ. dr. Nicolae Ghilezan (oncologist); Lazarovici Gh., Merlini M. 2008: 45–46.

281 Dennie C. C. 1962; Baker B. J., Armelagos G. J. 1988; Marcsik A. 1995; Hershkovitz I. et al. 1995; Merlini M. 2004b; 2009d.

282 Steckel R. H., Rose J. C. et al. 2002, p. 142–155.

283 Ortner D. J., Putschar W. G. J. 1981; Larsen C. S. 1997, p. 83.

284 Larsen C. S. 1997, p. 82–93.

285 Walker P. L. 1997.

286 Aufderheide A. C. et al. 1998; Ortner D. 2003.

287 Ortner D. 2003.

288 Lambert P. M., Walker P. L. 1991.

289 Ion A., Soficaru A. D. 2008, p. 155.

290 Salvana J. et al. 2005; Lovell N. 2008, p. 371.

is usually the result of infections from pus-producing bacteria such as the Staphylococcus aureus, but can also be originated by traumatic injury[291]. Osteomyelitis is a pathology very commonly diagnosed in human skeletal remains from the Neolithic.

Milady Tărtăria's ribs have been considered typical for those affected by osseous tuberculosis by our experts. This illness can cause chronic destructive inflammation with specific skeletal changes such as the collapse of the spine (Pott's disease), periosteal reactive lesions on tubular bones, hypertrophic osteoarthropathy, and osteomyelitis[292]. The end stage of tuberculosis of the spine (around 40% of skeletal tuberculosis cases according to A. C. Aufderheide, C. Rodriguez-Martin and O. Langsjoen[293]) is the very typical ventral destruction and collapse of the affected vertebral bodies leading to a more or less severe angulation of the vertebral column ("gibbus")[294].

The origin of osseous tuberculosis **is still controversial. According to the most recent studies, it** is a very ancient disease**, caused by mycobacteria** (mycobacterium tuberculosis complex) **that** probably predated the genus *Homo*, as evidenced by cranial lesions attributable to Leptomeningitis tuberculosis in a fossil *Homo erectus* dating from the middle Pleistocene (490,000 – 510,000 years BP). It was discovered in a travertine quarry outside the town of Kacabaș in western Turkey. The related study focuses on the possibility of vitamin D deficiency[295] causing a risk of tuberculosis for the ancient dark-skinned hominins during their migration from Africa into the temperate regions of Europe and Asia[296].

Considering the great antiquity of the disease that predated the dawn of civilization[297], the revision of earlier ideas that humans acquired tuberculosis from animals especially after early domestication in the region of the "Fertile Crescent", and the reconsideration of the possibility that the human variety is a variant of the bovine form,[298] medical historians stress that the larger and denser Neolithic populations that settled in connection to agriculture and animal taming enabled etiologic agents such as mycobacterium tuberculosis to indefinitely plague humans co-evolving with their hosts over millennia[299]. In particular, tuberculosis became an endemic key medical problem when humans began domesticating cattle and other mammals that carry a form of the disease known as bovine tuberculosis (mycobacterium bovis). Tuberculosis-compatible pathology in bones of North American Pleistocene bovids is confirmed by the results of DNA sequencing for a sample from an extinct bison dated to 17,000 years BP[300]. However, no human infection older than 9,000 years BP has been convincingly analyzed. In the Eastern Mediterranean, human tuberculosis is documented by morphological and molecular methods in Pre-Pottery Neolithic populations living around 9,250 – 8,150 BP in the first villages (such as Atlit-Yam, off the Israeli coast) with evidence of agriculture and animal husbandry[301]. The large Neolithic village of 'Ain Ghazal (Jordan) yielded cases of tuberculosis dated back to ca. 9,250 BP, before and/or during the period of animal and plant domestication[302]. In Europe, the earliest evidence **of spinal** tuberculosis in humans **was found** in the region of Heidelberg (southwestern Germany). Here a young male dated ca. 5000 BC was discovered with pathological evidence of tuberculosis of the spine whose 3rd and 4th thoracic vertebrae collapsed[303]. Early cases recognized by skeletal deformations due to tuberculosis were found in northern Neolithic Italy. They belong to the first half of the fourth millennium BC[304]. Slightly "younger" cases of comparable morphology are abundantly recorded for the earliest cattle breeders in Pre- to Early Dynastic Egypt (3500 – 2650 BC)[305], and from the Middle Neolithic period in Denmark[306] and Sweden

291 Aufderheide A. C. et al. 1998, p. 172; Mays S., Taylor G. M. 2002.
292 Ortner D. J., Putschar W. G. J. 1981; Hershkovitz I. et al. 2008.
293 Aufderheide A. C. et al. 1998.
294 Nerlich A. G., Lösch S. 2009, p. 2.
295 For the old-fashion point of view, see Steinbock R. T. 1976; Manchester 1984; Clark G. A. et al. 1987.
296 Kappelman J. et al. 2008.
297 Armelagos G. J. and Harper K. N. 2005.
298 In consequence, it was maintained that the bovine form is "older" and thereby potentially less virulent to humans. Viz Cockburn A. 1963 and Hare R. 1967 for the old point of view; for a critical essay on it and support of the scenario that M. tuberculosis probably derived from an ancestral progenitor strain, see Nerlich A. G., Lösch S. 2009 who investigate the interaction between pathogens in ancient populations and palaeo-climate conditions and changes.
299 Weiss R. A., McMichael A. J. 2004.
300 Rothschild B. M. et al. 2001.
301 Hershkovitz I. et al. 2008.
302 El-Najjar M. et al. 1996.
303 Bartels P. 1907; Herzog H. 1998; Madkour M. M. 2004, p. 3.
304 Formicola V. et al. 1987; Canci A. et al. 1996.
305 Zink A. et al. 2001, p. 14–18; Zink A. et al. 2003, p. 359–367.
306 Sager P. et al. 1972.

(3200 – 2300 BC)[307]. Animal domestication is likely to have been important in sustaining a denser human population, enabling M. tuberculosis to become endemic[308]. The eating of uncooked meat, unpasteurized milk and milk products from infected animals, as well as the consumption of contaminated vegetables by saliva, coughing and sneezing of the common cattle eventually led to the transmission of the disease to the human population.

Regarding syphilis, there is the possibility that Milady Tărtăria was affected by endemic or non-venereal syphilis: treponematosis **being** caused by treponema pallidum or what is commonly refered to as bejel. It is a different disease from venereal syphilis. **In both cases,** skeletal involvement is extensive and ultimately fatal; however, their mode of transmission is completely different. The non-venereal from of the illness occurs mostly in childhood and is conveyed by close skin contact with the sores of the infected, whereas the venereal form of syphilis is transmitted via sexual activity[309].

The origin of syphilis is an ongoing debate, but early evidence of it is revealed by Italian burials. The discovery in 1992 of non-venereal syphilis at the Pantanello Necropolis (ca. 580–280 BC) outside Metapontum (in the Basento valley) proved that the disease had existed in Europe for 2,500 years. The name Pantanello indicates a marsh. The presence of infectious marks of treponematosis was detected by the examination of human remains from two culturally distinct types of burials (Greek colonists and the local population). Sclerotic hyperostosis on 12% of the skulls (the thickening and pocketing of the cranial vault) and on 10% of the long bones was an effect of this disease[310]. Almost everyone buried in the chora of Metaponto suffered from treponematosis[311]. However, no traces of treponematoses have been discovered in the Mediterranean world[312]. The disease is signaled in a Polish burial[313].

For decades, syphilis was thought to have been introduced into Europe by the return of Christopher Columbus and his crew following his voyage to Haiti in 1492. Epidemics of this disease were unrecorded in Europe before then but spread across the continent from Spain soon after his return[314]. Current osteoarchaeological evidence, however, supports the theory that the disease existed in both the Old and the New worlds prior to Columbus' voyage and that the syphilis of the 15th century was probably the adaptive transmutation of a New World non-venereal disease brought back to Europe by returning sailors. When non-venereal syphilis reached Europe, it transmuted and became a particularly virulent venereal disease[315]. Before these epidemics, syphilis was simply not diagnosed as a separate disease and was often confused with leprosy. There was a reference to "venereal" leprosy and "hereditary" leprosy in the 13th and 14th centuries. Nevertheless, leprosy is not spread by sexual intercourse and is not passed from infected mother to infant, while syphilis is[316]. The history of tuberculosis and syphilis in ancient Egypt is outlined in G. J. Armelagos and J. O. Mills 1993[317].

Even though gummatous osteoperiostitis, pyogenic osteomyelitis, tuberculosis and endemic non-venereal syphilis behave differently, the symptoms of each of them are quite similar, and they affected Milady Tărtăria since her early age. However, if syphilis of the bone is commonly symmetrical, pyogenic osteomyelitis is less so, and articular surface lesions of tuberculosis are usually asymmetrical, unlike other forms of arthritis[318]. Therefore, Milady Tărtăria's posture is another key indicator in order to establish the illness that hit her probably since her birth: possibly tuberculosis**.**

307 Nuorala E. et al. 2004.
308 Weiss R. A., McMichael A. J. 2004; Armelagos G. J. et al. 2005.
309 Ortner D. J., Putschar W. J.G. 1981; Rothschild B. M. et al. 2006.
310 *Proceedings of World Forum on Syphilis and other Treponematoses* 1962; Régnier C., Rolland M. 1978; Carter J. C. 1990; 2006; Brun J. P. et al. 1998, p. 390–391.
311 Ridgway D. 1984, p. 144; Carter J. C. 1998, p. 532.
312 Morris I. 1992, p. 93.
313 Carter J. C. 1998, p. 532.
314 Dennie C. C. 1962.
315 Baker B. J., Armelagos G. J. 1988.
316 See also Hershkovitz I. et al. 1995; Marcsik A. 1995.
317 Armelagos G. J., Mills J. O. 1993.
318 See *Last Lecture: Paleopathology* 2002, on line.

VIIB. THE OTHER EVOCATIVE OBJECTS FROM THE PIT-GRAVE[319]

MARCO MERLINI

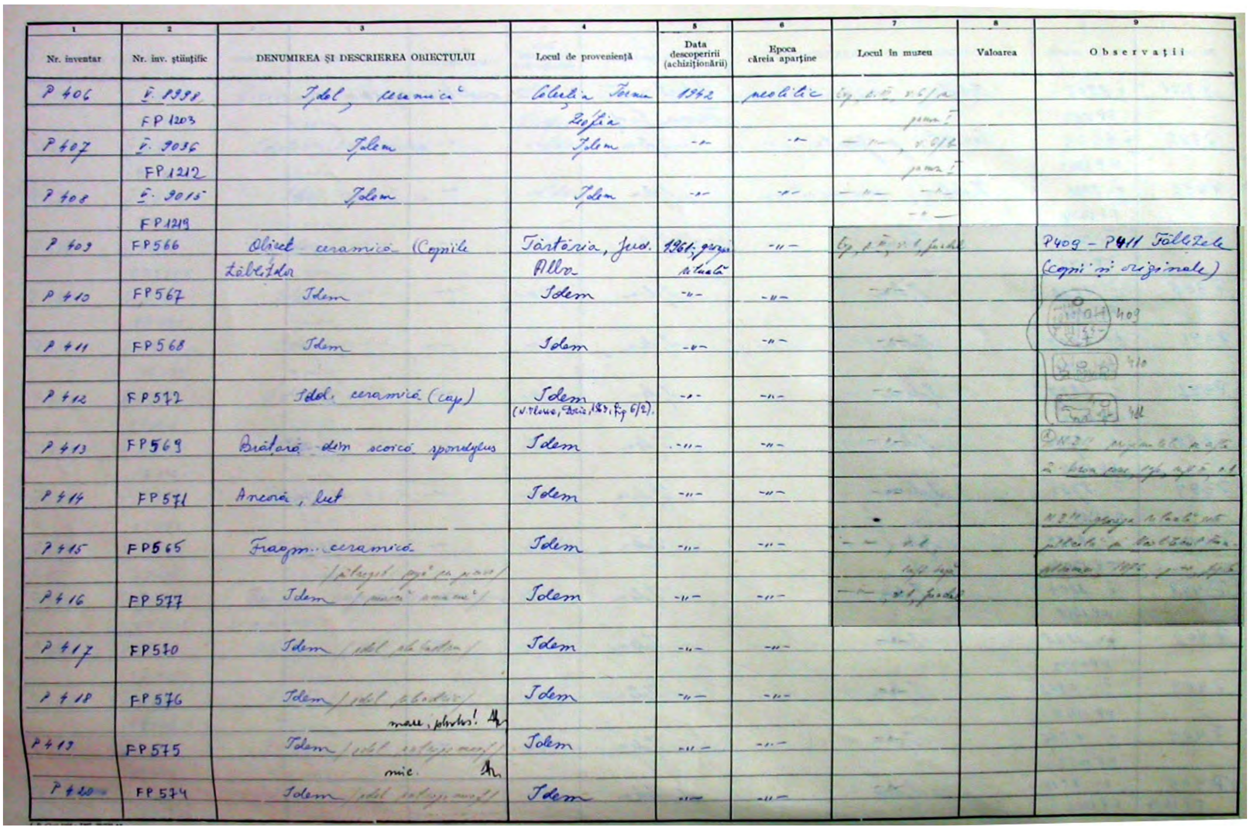
In his preliminary report, N. Vlassa recorded a total of thirty-two objects, even fragmented, including the tablets, to appoint to the ritual-funerary complex. He listed twelve objects under the category *groapa rituală* in the inventory of the Muzeul Național de Istorie a Transilvaniei in Cluj-Napoca and published only eleven impressive finds, tablets included. In particular, Vlassa published only seven "burned clay idols" from twenty-six that have been mentioned.

N. Vlassa numbered two "alabaster idols", but published only one of them: a figurine broken on the long axis. In our opinion, it is not attributable to the Cycladic type. It resembles an "alabaster idol" from Horedt's excavations that actually calls to mind the Cycladic typology. Vlassa inserted it as an import in the table with comparative stratigraphy, establishing several analogies in the Carpathian-Danubian-Balkan area[320].

Making a systematic research in the storage rooms of the museum, trying to find the missing artifacts from the ritual grave, Gh. Lazarovici and M. Merlini have found one more object belonging for sure to the pit and one unsure but presumable item.

All the pieces that accompanied the human bones and inscribed plates in the pit are fragmented.

They were not broken as the result of manufacturing mishaps or massive utilization, but have been broken intentionally, and possibly ritually. For example, the figurines are fractured horizontally at a strong part, such as under the chest or stomach. Dealing with the Bulgarian Eneolithic, P. Biehl demonstrated that these anatomical sections were the most important regions in term of symbolic meaning. They are the most decorated and show an astonishing similarity in the typology of symbols placed on them. The torso was also the portion of the statuette that was kept in the domestic context after breakage[321].



1 Nr. inventar	2 Nr. inv. științific	3 DENUMIREA ȘI DESCRIEREA OBIECTULUI	4 Locul de proveniență	5 Data descoperirii (achiziționării)	6 Epoca căreia aparține	7 Locul în muzeu	8 Valoarea	9 Observații
P 406	F. 1998 FP 1203	Idol, ceramic	Colecția [illegible] Zofia	1942	neolitic	[illegible]		
P 407	F. 9036 FP 1212	Idem	Idem	-„-	-„-	[illegible]		
P 408	F. 9015 FP 1219	Idem	Idem	-„-	-„-	-„-		
P 409	FP 566	Obiect ceramic (Copiile tăblițelor	Tărtăria, Jud. Alba	1961; groapa rituală	-„-	[illegible]		P409 – P411 Tăblițele (copii și originale)
P 410	FP 567	Idem	Idem	-„-	-„-	-„-		409
P 411	FP 568	Idem	Idem	-„-	-„-	-„-		410
P 412	FP 572	Idol ceramic (cap)	Idem (N. Vlassa, Dacia, 1963, fig 6/2).	-„-	-„-	-„-		411
P 413	FP 569	Brățară din scoică spondylus	Idem	-„-	-„-	-„-		[illegible]
P 414	FP 571	Ancoră, lut	Idem	-„-	-„-	-„-		[illegible]
P 415	FP 565	Fragm. ceramică	Idem	-„-	-„-	[illegible]		[illegible]
P 416	FP 577	Idem [illegible]	Idem	-„-	-„-	[illegible]		
P 417	FP 570	Idem [illegible]	Idem	-„-	-„-	-„-		
P 418	FP 576	Idem [illegible] mare, [illegible]	Idem	-„-	-„-	-„-		
P 419	FP 575	Idem [illegible] mic.	Idem	-„-	-„-	-„-		
P 420	FP 574	Idem [illegible]	Idem	-„-	-„-	-„-		

Fig.VIIB.1. The page of the inventory of the Muzeul Național de Istorie a Transilvaniei, Cluj-Napoca, that lists twelve objects under the category groapa rituală.

[319] Photos in this section are made by Marco Merlini.
[320] Vlassa N. 1961, p. 27, no. 12.
[321] Biehl P. 1996; 2006, p. 205.

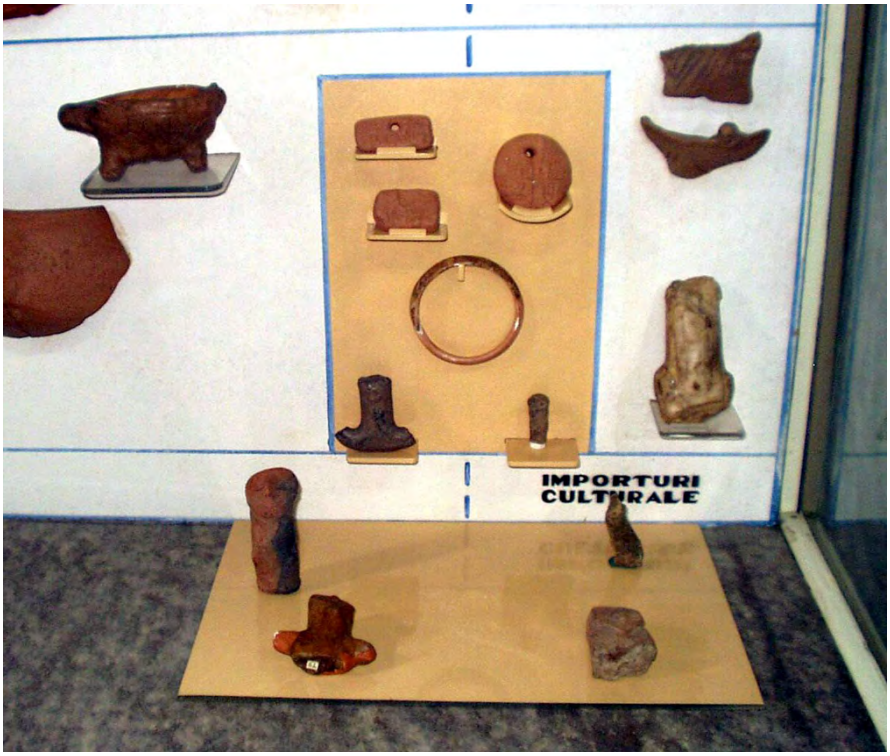


Fig.VIIB.2. The group of the Tărtăria artefacts in a showcase of the Muzeul Național de Istorie a Transilvaniei Cluj-Napoca.

The items from Tărtăria were not left or discarded as a fragmented whole but were deposited in the pit-grave as 'complete fragments', i.e., as incomplete objects which took a new significance; that is, their fragmented parts were separated and impossible to reunite because they could no longer be part of the same object. The fragments became, and continued to be, 'whole objects' which maintained a symbolic meaning, although different from the former entire object.

In this new form, they brought something other than aesthetic pleasure or functionality to users by being able to establish some sort of connection between individuals and the supernatural, and individuals and their community[322]. It is not without significance that the figurines were broken over the abdomen, because this links them to fertility and the caesura of it, although other meanings and functions could be advanced. Only the tablets were left whole and were buried as complete items.

This asymmetry suggests that the plates and the other paraphernalia might have played different roles in a complex belief system. The destruction of the latter was followed by the gathering of a fragment from each object as a communicative act, understood and undertaken by the community and passed down from generation to generation.

Broken artifacts

I. A fragmented figurine (head and shoulders) (fig. VIIB.6.7)

The first statuette is schematically shaped. The inventory number is P420, considered to be merely a head. It was published as fig. 6.1 in N. Vlassa 1963.[323] It was intentionally broken horizontally under the chest. The figurine has truncated arms and a rectangularoid head with a mask, as shown by a clear differentiation between the shape of the head and the triangular mask. The mask follows typical Vinča A art canons: two long strokes for eyes, a prominent nose, and an elaborate coiffure at the top of the head made by parallel grooves within triangular patterns.

The statuette is 7.2 cm high and 7.0 cm large, arms included. It is possibly a male due to an absence of breasts and typology of hairstyle. The matter is quite fine, with little shards embedded inside. It was fired at higher temperature than the prismatic figurine that we analyze below, but for less time and it is still gray colored inside. It was heavy restored and impregnated with lacquer but it is possible to glimpse its original brown color and the fact that it had angoba on the surface.

[322] Biehl P. 2006, p. 202, 204.

[323] S. Hansen incorrectly published the statuette as being discovered at Turdaș (Hansen S. 2007.II, pl. 288/1).

Fig.VIIB.3. Intentionally broken male figurine with truncated arms, rectangularoid head and typical triangular Vinča A mask.

Fig.VIIB.4. The statuette was covered with red and yellow ochre.

Fig.VIIB.5. Side of the male figurine.

The above presented figurine was covered with red ochre and then with yellow ochre, which is very clear on the mask. The mask is 3.2 cm high and 3.0 cm large at the top. It is asymmetric towards its left as other figurines from the ritual grave are. The rectangularoid head has an extension in depth of 2.5 cm. At first, a huge triangle was incised on its top by the craftsman, then 7 lines inside it and the remaining decorations which might represent the hair. One of the truncated arms was broken; the other is original.

In the Danube civilization, figurines with a number of features in common with the Tărtăria statuette with the rectangularoid head have been found, but are not completely comparable. Figurines with a triangular face appear in the Vinča A – Polychromy phase, but are present also in the Vinča B phase in Banat and Transylvania[324]. They occur in the Vinča – *Belo Brdo* settlement at 8.5, 8.4 and 8.1 meters[325], belonging to the Vinča A3 phase. In Romania, they are present at Gornea, Vinča A[326], Zorlențu Mare, Vinča A3-B1 levels[327], Vinča B2[328] and B2/C[329], Balta Sărată, Vinča B1, where there are five figurines with a triangular mask very similar to the Tărtăria statuette under investigation[330], Parța, Banat culture – Vinča B[331], Liubcova, Vinča C[332].

[324] Lazarovici Gh. 1979, pl. XA-b, XX–XXI and bibl.; Luca S. A. 1978; 1991; Suciu C. 2008, p. 220–223.
[325] Vasić M. 1936 III, pl. V, 18, XII, 53, XX, 103.
[326] Lazarovici Gh. 1979, pl. XX/A4, B1–4.
[327] Lazarovici Gh. 1979, pl. XX/D1–3, 9; H1
[328] Lazarovici Gh. 1979, pl. XXI/J 9,17.
[329] Lazarovici Gh. 1979, pl. XX/B17.
[330] Lazarovici Gh. 1979, pl. XX/I 5–6.
[331] Lazarovici Gh. 1979, pl. XXI/G7, 10, 11.
[332] Lazarovici Gh. 1979, pl. XXII/1.

At Turdaș, a Vinča A3–B1 figurine is comparable with an analogous mask, but the head is triangular[333], as well as at Jela[334] and Ruginosu[335].

Fig.VIIB.6. The craftsman incised a large triangle on the top of the rectangularoid head. The seven lines inside it and the remaining decorations might represent the coiffure.

Statuettes with similar eyes have been discovered at Liubcova in the Vinča B1 layer[336] and in house 1 from the east area at Selevac (Republic of Serbia), belonging to the Vinča B2–C phase[337]. Two statuettes from Zorlențu Mare, situated half way between the settlements of Turdaș and Vinča, show parallels with the Tărtăria statuette concerning features of both eyes and arms[338]. They could be synchronized with Vinča B1–B2 phases and not with the Vinča A2–B culture as E. Comșa and O. Răuț did, because they have been discovered in layers 2 and 4.

Fig. VIIB.7. Deliberately broken figurine of prismatic shape.

II. A clay statuette, prismatic shape, deliberately broken

A second fragmented figurine has a prismatic shape. The inventory number is P412, accounted merely as a head. It was published as fig. 6.2 in N. Vlassa 1963; Maxim Zoia 1991, p. 177, Kat. 96. The fragment is deeper then large measuring 6.6×3.5×3.8 cm. Coherently with the head dimensions, the statuette was initially 20–25 cm in height. After the high-pedestalled bowl, this is the biggest discovered object in the ritual pit-grave. It might be part of a house altar.

The pillar-shaped statuette was made in a hurry not caring for the quality of the result. The utilized material is not very fine and includes some little shards (one of them contains more mica than the other ones) behind the head and on the right side of the neck. Eyes have been modeled pressing fingernail and fingertip. Shape and details of the figurine were not refined with hands, but with a wooden or osseous tool that was also employed to engrave the decorations. The statuette was hard fired for a long time and uniformly cooked. It was not polished but just cleaned with hands or leather. The figurine was intentionally fragmented having been broken horizontally at a place that is one of the strongest parts of the body: under the chest and above the waist.

333 Roska M. 1941, pl. 138/10.
334 Winn S. on-line a, fig. 2 e–f.
335 Lazarovici Gh. ms.
336 Luca S. A. 1998a.
337 Tringham Ruth, Krstić D. 1990, p. 406, fig. 11.7d.
338 Comșa E., Răuț O. 1969, fig. 3, 6.

Fig. VIIB.8. The material of the pillar-shaped figurine is not very fine and includes little shards behind the head and on the right side of the neck.

An important symbolic element is that the statuette is completely painted, mainly in red and partly in yellow. It is not without significance that the mask is bicolor and pigmented with incrusted painting. In particular, there are remains of red paint on the left eyebrow and on the top of the head. Many traces of yellow ochre are evident on the left side of the body and the mask while there is little on other parts. There are traces of a black color in the decorative incisions on the body, the mask, and the right eye.

This statuette seems to be asexual because of an absence of any trait clearly connected to gender. For example, the lines of the breasts are not evident at all. However, according to contemporary standards it wears female accessories (earrings) and clothes (a striking tunic with V patterns in front and on the back).

The head was not modeled separately from the pillar-shaped body. Therefore, the face is on the upper front of it. It is obvious that the figurine is wearing a mask, due to the marks of its application on the face, the large stroke-fissures for eyes, and the un-naturalistic pentagonal flat physiognomy. The craftsman started to drill a hole on the far lower area of the mask, but then changed mind; the cavity is only a hint. The mask was deformed when the clay was still soft. It was subjected to a deliberate torsion from its right to left similar to a knock that hurt it. The twisting pushed the nose into the centre, de-squared the oblong fissure of the eyes from the same horizontal line (the left eye is higher then the right eye), but did not distort the outline of the mask. Was the deformed shape of nose and eyes due to the intention of representing a particular mythical personage? In the ethnographic record several masks occur which, employed in ceremonial rituals, depict mythological beings, the spirits of dead ancestors as well as deities and other fabulous beings believed to possess power over the living. Alternatively, was the disfigured mask worn by the statuette from Tărtăria, as well as the fragmentation of the body, a mark of the passing away of the person who was buried with the ritual pile of objects? As a third but far possibility, was it the result of a practice considered nowadays typical of malevolent actions made during "black magic" rituals?

Close examination of the statuette reveals eight holes through six perforations made before firing: two and two punctures are communicating and one can easily imagine the statuette either wearing large circular earrings, or suspended over an altar, or attached through strings on poles[339]. Two deep perforations have been made obliquely on the back of the head and there were probably three originally. The artisan was not very sure about angulation and the direction of the holes, and made more than one attempt. The orifices over the armpits are very interesting, because a stick may have been inserted in order to raise and sustain orante arms that were broken during a ritual, or to permit the change of one type of arm with another type.

The pentagonal mask and slit eyes of the prismatic figurine are reminiscent of those on figurines from early Vinča. Vl. Milojčić claimed on this basis that they support the date for the Transylvanian tablets in the Vinča A culture[340]. According to J. Makkay, such impressive parallels are known from Turdaș[341]. He speculated that similar figurines from Tărtăria and Turdaș have been fashioned by the same craftsman. Noticing the very early date of this figurine typology at Vinča[342], he also conjectured that it could have been a prototype for the Mureș occurrence[343]. Unfortunately, most of the statuettes cited by J. Makkay do not have prismatic shape.

339 Marangou Christina 1992, p. 202.
340 Milojčić Vl. 1965, p. 264, 268.
341 Roska M. 1941, pl. 138, 5, 11.
342 Vasić M. 1936 III, pl. VI, 22.
343 Makkay J. 1974–1975, p. 18.

Fig. VIIB.9.The eyes of the prismatic statuette were modeled by pressing with fingernail and fingertip.

Fig. VIIB.10. The mask has been deformed under a deliberate torsion from its right to left similar to a knock.

In a chapter below, we advance the hypothesis that such a distinct statuette from the ritual pit-grave might be a marker of Milady Tărtăria's passing away, modeled after her death, probably resembling her features and acting for her rebirth.

Fig. VIIB.11. The prismatic figurine was completely painted, mainly in red and partly in yellow.

Fig. VIIB.12. A stick may have been inserted in the orifices over the armpit to raise and sustain orante arms.

III. A minute phallus-type statuette

A mignon cylindrical statuette is possibly one of the "statues with ... cylindrical-or-prism-shaped body", according to N. Vlassa[344]. It is 3.8 cm high and is 1.2 – 1.3 cm in diameter (it is elliptic). The inventory number is P419, but it was wrongly written 413 on the object. The figurine was published in fig. 6.6 in N. Vlassa 1963; Maxim Zoia 1991, p. 177, Kat. 93.

Fig. VIIB.13. A minute phallus-type figurine.

Fig. VIIB.14. The asymmetric mask of the mignon phallus-type figurine.

The cylindrical statuette is wearing an ovoidal mask 1.7 cm in length. The mask is pointing up and it is asymmetric towards its left, as the other figurines from the ritual grave are also. Other features of the mask are a prominent nose and wide stroke-fissures for eyes. One can also identify a bump on the back of the head indicating the continuation of the mask as a high and long crest/crown sticking up from the mask and fitting over the forehead. In similar occurrences, these bumps have been interpreted as coiffures, heads or deformations[345]. The neck cannot be differentiated from the rest of the body. The base is flat and round. Arms, breast and buttocks are not indicated. The object was finished with hands and not with a tool. The cylindrical statuette is typical of Vinča art criteria. For a comparison with similar pieces, see the paragraph below.

IV. A massive statuette of phallus type

A large figurine of the phallus type has inventory number P418. It was published in fig. 6.8 a, and b in N. Vlassa 1963; Maxim Zoia 1991: p. 177, Kat. 92.

The cylindrical figurine is 8.2 cm tall. The neck cannot be distinguished from the body. The base is flat and almost circular. It is clearly of female gender due to clues of a breast on its right. The area of the other breast is abraded. Originally, it had arms but they have been intentionally broken. The bottom is minute but it is sumptuous and the emphatic buttocks are well marked as well as the deep vertical split that divides them.

The presence of a mask is indicated by large stroke-fissures for eyes and by marks where the mask is hanging at the face. The mask is rounded, pentagonal-ovoidal, being less high then large (4.2 cm × 4.4 cm). It is asymmetric towards its left as the other figurines from the ritual pit-grave are. The mask

[344] Vlassa N. 1963.

[345] See Lichardus J. 1988, p. 112; Marangou Christina 1992, p. 177; Pogoževa A. P. 1985, p. 108; Gimbutas Marija 1974, p. 54–55.

is pointing up, being set on the top of the body at an angle of 45 degrees[346]. One can also identify a high crest/crown on the top of the head in form of a bump. Two holes are discernable at both side of the mask possibly for inserting earrings or for giving the figurine the possibility to be suspended. Wide and deep stroke-fissures stand for eyes. Two deep cavities mark the nose, which is very prominent. There is a large hole positioned on the far lower part of the mask resembling an opening mouth. It was made before firing and still now yellow soil is distinguishable inside. The hole is straight and perfectly round which is not due do the loss of a pebble or a miniature piece. It is intentional. Is one in presence of a speaking or singing figurine?

One can note at a glimpse that these statuettes show a phallus-like shape with accentuation of a masked face over the glans. The phallic shape for a female figurine expresses clearly the encounter of the male-female duality in the same body.

Phallic representations made of clay stands with anthropomorphous female traits are known since the Starčevo-Criș (Körös) and Early Vinča assemblages of the Central Balkan region. They can have human feminine facial features and/or female breasts. The combining of female and male characteristics in one figurine did not completely disappear after the sixth millennium BC[347].

Column-shaped masked figurines are well known from Vinča A and early Vinča B1 cultural groups. Similar statuettes coeval with the Transylvanian finds were discovered in the Vinča A2/A3 level, at a depth of 8.9 and 8.4 meters[348] in the eponymous settlement of the Vinča culture[349]. Potporanj[350] and Žabalj in Voivodina[351] also yielded Vinča figurines with cylindrical shape. A comparable figurine type was found at Orlovo settlement (South East Bulgaria), but it is without a clear chronology[352].

Fig. VIIB.15. A large figurine of phallus type.

Fig. VIIB.16. A large figurine of phallus type.

346 Makkay J. 1974–1975, p. 18.
347 Gimbutas Marija 1974, p. 217.
348 Vinča A after Milojčić VI.; Vinča – Turdaș I after M. Garašanin.
349 Vasić M. 1936 III, pl X, 38; XIII, 62; Hansen S. 2007.II, pl. 248/1, 2.
350 Brukner B. 1968, pl. IV. 1.
351 Brukner B., Jovanović B., Tasić N. 1974, fig. 42.
352 Gaydarska Biserka 2009, personal communication.

Fig. VIIB.17. The large figurine of phallus type positioned on a zoomorphic altar belonging to the same settlement.

Fig. VIIB.18. A large hole is positioned on the far lower part of the mask of the massive phallus type figurine resembling an opening mouth. Are we in the presence of a speaking or singing figurine?

The material is medium fine clay mixed with some fine mica. However, the statuette was schematically and roughly molded, polished only with the hands, and refined with a stick of wood that has also been employed to outline the decorations. The artisan made a circular structure, then covered it with clay. The figurine was fired at a high temperature. The color is brown-red. Its left part is black because it was put inside ashes. Gh. Lazarovici and M. Merlini recovered traces of a yellow slip on the body.

In Romania, statuettes that are coeval with the Tărtăria finds were recovered at Gornea, in the Vinča A stratum[353]; at Limba – *Şesu Orzii* (Alba Iulia County, Romania)[354]; Limba (Dumbrava, municipality Ciugud)[355], at Zorlenţu Mare, in the Vinča A3-B1 levels[356]; and at Miercurea Sibiului – *Petriş*, level Ib, corresponding to the Vinča A3/B1 period[357].

Subsequently, similar statuettes were discovered at Zorlenţu Mare, in the Vinča B2 context[358]; at Balta Sărată, in Vinča B1/B2 level[359]; Ostrovul Mare[360]; and at Parţa, Banat culture[361]. Phalloid statuettes were found in the Turdaş culture at Turdaş[362]. The second figurine from Turdaş is more or less similar to the Tărtăria one, even being 8.7 cm tall and having a drilled hole-mouth under the mask. However, the evident crest behind the head is more similar to the protuberance in the mignon phallic statuette from Tărtăria. According to S. Hansen, the statuette from Turdaş and the Tărtăria massive phallic statuette are identical because he made a mistake and published the latter as it was discovered at Turdaş[363]. The V ornament along the jaw has an analogy at Gornea in the Vinča A culture[364]; in the

353 Lazarovici Gh. 1979, pl. XX/A 4, 10, 11, 15.
354 Florescu C. et al. 2007, p. 99, fig. 2, dated to ca. 5500–5200.
355 Hansen S. 2007.II, pl. 294/1.
356 Comşa E., Răuţ O. 1969, fig. 3, 6; Lazarovici Gh. 1979, pl. XXD/1, 2, 3, XXE/2. Here the mask is not pentagonal-ovoidal as in the statuettes from Tărtăria. In addition, the eyes are slightly different.
357 Luca S. A., Diaconescu D., Suciu C. 2006a.
358 Lazarovici Gh. 1979, pl. XXI/B5.
359 Lazarovici Gh. 1979, pl. XX/K5.
360 Hansen S. 2007. II, pl. 269/1.
361 Lazarovici Gh. 1979, pl. XXI/GG 1, 3, 11 with a long crest/crown sticking up from the back of the head.
362 Roska M. 1941, pl. 137/13, and 138/7.
363 Hansen S. 2007.II, pl. 288/2.
364 Lazarovici Gh. 1979, pl. XX/A4.

Vinča A3-B1 levels at Zorlențu Mare[365]; Vinča A3-B1 at Balta Sărată[366]; and Vinča A3/B1 at Miercurea Sibiului – *Petriș*[367].

Before the early and middle Vinča culture, in the Early Neolithic of Southeastern Europe, prototypes of the cylindrical style of figurine have been recovered in the Starčevo-Criș (Körös) cultural complex. Occurrences are from the Starčevo sites of Vinkovci – *Pjeskana,* in Croatia[368]; in the Republic of Serbia, from Syrmien[369]; and Crnokalačka Bara – *Rujiste*. Here an anthropomorphic statuette in the shape of a phallus has a pinched-up nose, incised eyes, female breasts, and a flat base[370]. Incisions are around the top. It is dated c. early sixth millennium BC[371]. Cylindrical terracotta statuettes come from the Hungarian Körös sites of Szolnok – *Szanda Szarvany*[372]; Szolnok – *Szanda Szöny*[373]; and Dévaványa – *Atyaszeg*[374]. In Greece, this typology of a phallic anthropomorph is present at Achilleion[375]; and Servia[376]. In Bulgaria, it is found in sites from the Karanovo culture at Karanovo II[377]; Gălăbnik[378]; and Sofia – *Slatina*[379]. In F.Y.R.O.M., there are examples from Anzabegovo[380]; Porodin[381]; Zelenikovo[382]; and Čuka[383].

In the Middle/Developed Neolithic, column-shaped figurines have been discovered in Greece at Franchti in Peloponnese[384]; and Zappeio[385]; in Bulgaria, at Ljubimec[386]; and in Romania, at Suplacu de Barcău in III phase from Zau culture[387]. In Albania, there are examples from Dunavec I[388], and Dunavec II[389].

In the Late Neolithic, phallic anthropomorphic stands were recovered in Greece at Sitagroi[390]. Similar pieces were discovered in Bulgaria at Usoe in dwellings 39[391] and 46[392], 81[393], and out of residential buildings[394]. In Romania, anthropomorphic phalluses occur in the Vădastra culture at Hotărani – *La Turn*[395].

In the Early Copper Age, a Cucuteni A terracotta figurine with phallic outline and anthropomorphic female features was discovered at Trușești-*Țuguieta* (Northern Moldavia, Romania)[396]. As a number of other East Balkan female statuettes, it has a canal down the middle of the body and through the whole length of it. Since the canals are in general about 2 mm in diameter, it is reasonable to infer that they were not drilled for a practical reason but to imitate the seminal canal[397]. Drama, in Bulgaria, yielded several phallus-like statuettes[398]. In Hungary, at the Tisza site of Öcsöd – *Kováshalom* anthropomorphic phallic statuettes have long pointed noses[399]. However, none of the pieces mentioned above has an upward pointing pentagonal-ovoidal mask.

365 Lazarovici Gh. 1979, pl. XX/D9.
366 Lazarovici Gh. 1979, pl. XX/I 5.
367 Luca S. A., Diaconescu D., Suciu C. 2007.
368 Minichreiter Kornelia 1992; Hansen S. 2007.II, pl. 110/3.
369 Hansen S. 2007.II, pl. 131/2.
370 Galović R. 1968, pl. 13/4.
371 Gimbutas Marija 1974, p. 217, fig. 167.
372 Kalicz N., Raczky P. 1980–81, p. 13 ff.; Hansen S. 2007.II, pl. 111/1.
373 Kalicz N., Raczky P. 1980–81, p. 13 ff.; Hansen S. 2007.II, pl. 111/2, 3.
374 Oravecz H. 1995; Hansen S. 2007.II, pl. 116/5.
375 Gimbutas Marija 1989; Hansen S. 2007.II, pl. 88/2, 4, 7, 91/4, 5.
376 Hansen S. 2007.II, pl. 155/1.
377 Hiller Şt., Nikolov V. 1999; Hansen S. 2007.II, pl. 168/4.
378 Pavúk J., Cohadžiev I. M. 1984, p. 195 ff.; Hansen S. 2007.II, pl. 162/1.
379 Nikolov V. 1991; Hansen S. 2007.II, pl. 163/5, 9.
380 Gimbutas Marija 1976; Hansen S. 2007.II, pl. 136/10, 11, 12.
381 Grbić M. et al. 1960; Hansen S. 2007.II, pl. 148/7.
382 Hansen S. 2007.II, pl. 143/3.
383 Hansen S. 2007.II, pl. 154/1.
384 Talalay L. E. 1993; Hansen S. 2007.II, pl. 83/1, 7, 8.
385 Hansen S. 2007.II, pl. 97/1.
386 Nikolov V. 2002; Hansen II 2007, pl. 184/3.
387 Ignat Doina 1998, p. 178, fig. 34/6, 7, 8, 179, fig. 35/1, p. 180, fig. 36/8, 9 with triangular mask, p. 181, fig. 37/8, p. 184, fig. 40/5: Lazarovici Gh. 2009, p. 183, tab. 5, p. 200–203,
388 Korkuti M. 1995; Hansen S. 2007.II, pl. 157/3.
389 Korkuti M. 1995; Hansen S. 2007.II, pl. 159/6.
390 Renfrew C., Gimbutas Marija, Elster Ernestine1986; Hansen S. 2007.II, pl. 201/8, with an evident crest behind the head.
391 Vajsov I. 1990, p. 103 ff.; Hansen S. 2007.II, pl. 195/11, 12.
392 Vajsov I. 1990, p. 103 ff.; Hansen S. 2007.II, pl. 196/14.
393 Vajsov I. 1990, p. 103 ff.; Hansen S. 2007.II, pl. 197/17.
394 Vajsov I. 1990, p. 103 ff.; Hansen S. 2007.II, pl. 196/19, 20, 23.
395 Nica M. 1980; Hansen S. 2007.II, pl. 206/9.
396 Florescu A. C. 1961, p. 81, 82, figs 2, 3.
397 Gimbutas Marija 1974, p. 220, fig. 169.
398 Fol Al et al. 1989; Hansen S. 2007.II, pl. 337/11, 338/1, 6, 7, 8.
399 Raczky P. 1982, p. 149, fig. 9; Hansen S. 2007.II, pl. 112/1, 2.

V. A fragment of an idol face

A human face that is in some measure naturalistic has been addressed by N. Vlassa as a fragment of a pot (an anthropomorphic pot with a human face), maybe a container for holy liquid. It is a small part of a broken lid according to other authors[400]. However, it is in fact the upper part of a cylindrical figurine. The inventory number is P416. It was published in fig. 6.3 in N. Vlassa 1963; Maxim Zoia 1991, p. 177, Kat. 95. The statuette is wearing a mask as documented by the circumference of the oval-shaped mask fitted over the outline of the figurine's more rounded head and the presence of two wide, deep and slightly curved strokes for eyes. The mask measures 4.1 cm × 3.55 cm. The nose is modeled as an extended prominence that becomes thicker towards the base (near the arches).

The mask follows some typical Vinča A art criteria: it is oval-shaped and presents two horizontal lines for eyes. Similar figurines have been found in Vinča B1–B2 levels at Zorlențu Mare[401] and at Limba – *Vărărie* in the Alba Iulia County[402]. According to J. Makkay[403], similar artifacts have been discovered at Turdaș[404]. However, they are all lids.The anthropomorphic representation from Tărtăria exhibits a hole positioned under the mask, upon the chin. Is it another clue for the presence of speaking or singing figurines in the Transylvanian ritual grave? In the museum of Cluj, the object is nowadays delocalized in another section of the showcase, disjointed from the other finds from the ritual grave.

Fig. VIIB.19. An anthropomorphic representation that has been mistaken for a fragment of a pot lid with a human face.

Fig. VIIB.20. The side of the partially naturalistic human face.

VI. An alabaster figurine

On a deliberately broken figurine made of gray alabaster, with a little part in marble, one can see human features. The statuette is also wearing a mask of the Vinča A or B type. The inventory number is P417.

It was published in fig. 6.7 in N. Vlassa 1963; Maxim Zoia 1991, p. 177, Kat. 94. The statuette is 10.5 cm high and 0.75 cm thick. Having being vertically cut, its original width should have been ca. 1.5 centimeters.

N. Vlassa annotated two alabaster idols "of Cycladic type which may have analogies with the Aegean world's plastic" among the artifacts found in the ritual pit. Some scholars stress the correspondences to the point to propose "an Aegean origin" for them[405]. However, the existence of this type of stone and marble figurines is well known also in the early Vinča culture where these items are often considered "scepter". See, for example, at Gornea from the Vinča A layer[406].

Another intentionally broken figurine believed to be "a marble idol of Cycladic type" has been found at Tărtăria by K. Horedt in 1943. The discovery happened in trench B at a depth of 200 – 222 centimeters. It has the inventory number IN 14.877. The figurine is 11 cm high. Hips are very large: 6.1 centimeters, whereas shoulders are 5.0 cm, and middle bust is 4.3 cm.

400 Makkay J. 1969.
401 Lazarovici Gh. 1979, pl. XX/D5, H7, 11–12.
402 Ciută Beatrice et al. 2007, fig. 7.
403 Makkay J. 1974–5, p. 18.
404 Roska M. 1941, pl. 102.14, 19; pl. 103.18.
405 Luca S. A. 2006a, p. 39.
406 Lazarovici Gh. 1979, pl. XX/C1.

Fig. VIIB.21. An intentionally broken alabaster figurine.

Fig. VIIB.22. An "alabaster idol" from Horedt's excavations (photo: courtesy F-M.U.S.EU.M. project).

VII. An armlet made of Spondylus gaederopus

The bracelet recovered in the pit, possibly a band worn round the upper part of a person's arm, is made of a prized and "exotic" matter: the Mediterranean native spiny seashell of the genus *Spondylus gaederopus*[407]. It measures 8.7 cm in external diameter and is 0.8 cm thick and possibly came from the Aegean Sea.

It is not very brilliant as some counterparts, but still has a milk-white color on the inner side. The inventory number is P413.[408]

This shell ornament was apparently simple to make, being formed from calcite and aragonite with large valves, ideal material for working. However, processing it required a good knowledge of raw material, much effort and artisanship. The Tărtăria bangle is ordinary, and was not very well polished and smoothed, but quite symmetrical. The result is an evocative shape showing bilateral symmetry in three dimensions: top-bottom, left-right, and overall thickness of section. This represents a harmonious cultural order created out of the chaotic, spiny, spiking, and rough natural shape[409].

Even if the restoration process was very invasive, still now it is possible to discern that the armlet fits a minute wrist or arm and was worn (by Milady Tărtăria?) for a long time. It has been broken not accidentally, but intentionally at some point in a ritual, possibly performed during the defleshment process or the secondary burial. In fact, the bracelet was broken exactly in the middle through an abrupt action. The action led to dramatic changes in the arm ring's appearance and it was deliberately deposited at the final phase of its biography.

[407] Linnaeus C. 1758.
[408] It was published in fig. 6.4 by Vlassa N. 1963; Maxim Zoia 1991, p. 177, Kat. 90.
[409] Helms M. W. 1993, p. 70–75.

Fig. VIIB.23. The deliberately broken armlet made of Spondylus (photo: courtesy F-MUSEUM project 2009).

Fig. VIIB.24. The bangle was worn during lifetime for a long period.

Armlets, as well as other Spondylus personal adornments such as bracelets, beads, buttons, pendants and belt buckles, were typical desired goods for Neolithic and Copper Age communities combining aesthetic qualities, durability, exoticism, and supernatural associations. They were one of the privileged items of an exchange network that formed the first long-distance trading route for a specific, identifiable resource on the continent[410]. This covered a wide area (most of the European continent), drifting from South to Central Europe (connecting the Aegean to the Paris Basin, the British Channel, and Poland in the late VI millennium BC); it was long-lasting (being active for more than 2000 years), and was characterized by a complex mixture of economic, social, and religious associations[411].

The circulation of magical Spondylus to which the Tărtăria community belonged was very fashionable and strengthened social structures. It tightened relationships between communities and gave respect and prestige to those such as Milady Tărtăria who were capable of exhibiting the most remarkable pieces. During the Early Neolithic, valuable Spondylus adornments spread toward the centre and the North of the continent alongside the success of the Danube-Balkan lifestyle and economy, and matched the formation of new regional exchange networks that accompanied the start-up of farming economies such as Protoseskło, Starčevo-Criș (Körös), and Karanovo I. In the Developed/Middle Neolithic, to which the Tărtăria armlet belongs, Spondylus ornaments arrived to conquer Western Europe with the oldest finds, dating from 5500 BC in the Dalmatian Danilo culture and, in the Balkans, the central site of Obre in central Bosnia (Vinča culture, phase Kakanj). In Northern and Central Greece, Spondylus

410 Séfériadès M. 2003; 2009.

411 Viz. Stifft-Gottlieb A. 1939, within the discussion of a Linear Bandkeramik grave from Eggenburg (Austria); Raczky P. 1948, p. 96–98; Childe G. 1949, p. 118; 1964, p. 87; Clark J. G. D., 1952; Vencl S. 1959, p. 739–742 verifying 111 sites in the "Danubian Neolithic"; Quitta H. (18) 1960, 2, p. 166–67; Shackleton N. and Renfrew C. 1970; Horedt K. 1970, p. 103–104, fig. 7 map; Renfrew C. 1972; 1973; E. Comșa 1973, on the Neolithic shell adornments discovered in Romania; Shackleton J. C. 1984 with an overview on Spondylus artifacts in Neolithic Europe; Willms C. 1985; Tsuneki A. 1989; Shackleton J. C. and Elderfield H. 1990 with an analysis on the dating of the Neolithic European Spondylus shell artifacts; Grammenos V. D. 1991; L. Karali-Yannakopoulou 1991 dealing with the proto-historic shell parures from Dimitra (Greece, Macedonia); 1992 discussing mollusks at Dikili Tash; Karali L. 1993; 1999 within the context of the shells in Aegean prehistory; Todorova Henrieta 1995; 2000 investigating the Karanovo III culture; Séfériadès M. 1995a; 1995b; 1996; 2000; 2003; 2006 focusing on long-distance exchange network; 2009; Kotsakis K. 1996, p. 168–170; Müller J. 1997, with a revision review of data on the geographic distribution and chronology of Neolithic finds; Kyparissi-Apostolika N. 2001 within the context of prehistoric ornaments in Thessaly; 2005 examining symbols of life and symbols of death in Neolithic archaeological contexts; Kalicz N. and Szénászky J. G. 2001; Podborský V. 2002 contextualizing Spondylus jewels in Linear Pottery cemetery at Vedrovice (South Moravian Region, Czech Republic); Miller J. 2003 and Nikolaidou Maria 2003 focusing on Sitagroi evidence; Chapman J. 2004 about the fragmentation and enchainment of Spondylus bracelets in the East Balkan Neolithic and Copper Age; Gaydarska Biserka, Chapman J., Angelova, Gurova Maria & Yanev S. 2004 with considerations starting from the investigation of several fragments of Spondylus bracelets within the Karanovo VI "treasure" from the tell Omurtag (northeastern Bulgaria); Bonnardin S. 2004 concerning the Early Neolithic funerary adornments in Paris and Renan regions; Borrello M. A., Micheli R. 2004; 2006 on the Spondylus gaederopus adornments in the Neolithic and Copper Age sites in Italy; Lenneis Eva 2007 within the context of the Mesolithic heritage in Early Neolithic burial rituals and personal adornments; Micheli R. 2010.

bracelets were frequent during the Middle and Late Neolithic and the Early Bronze Age. A number of settlements – such as the Middle Neolithic Nea Nikomedia in Macedonia, and Late Neolithic Dimini in Thessaly[412], Dikili Tash[413], and Dimitra[414] in Eastern Macedonia and Neolithic, Copper Age Sitagroi[415] and Servia[416] in Eastern Macedonia – are thought to have been key production centers for them[417].

In the Vinča culture of the Transylvanian discovery, Spondylus armlets have been found in a number of burials. The most significant arm rings and bracelets made of Spondylus have been recovered at the key site of Vinča – *Belo Brdo*[418]. Even during the first excavation season, nine shell bracelets were unearthed, which arrived from a coastline that is more then 500 km away[419]. Complete shell-made bracelets have been discovered at Botoš necropolis[420].

In cousin cultures to the Vinča culture, Spondylus armlets are found in great numbers extending from the Aegean Sea to Poland. We present only some example of items with some parallels with the bangle from Tărtăria. A Spondylus worked into an armlet, analogous to the Tărtăria armlet, was recovered from a rich male burial (grave n. 43 – Ox-13685) in the Varna necropolis. The last resting place contained more gold than has been found in the entire rest of the world for that epoch to attend the chieftain of the clan, famous to a wide audience for his supposed gold penis sheath[421], but actually the lowest part of a stick[422]. The Spondylus armlet is 9.2 cm in diameter and was worn during its lifetime. Two rectangular gold plates were used to repair the broken areas[423]. The Varna burial belongs to the first phase of the settlement and has a radiocarbon age of BP 5720±29[424].

Fig. VIIB.25. The bracelet was made of very perishable material.

Fig. VIIB.26. One of the points where the bracelet was intentionally broken down in two parts.

A Spondylus armlet similar to that one from Tărtăria, with an external diameter of 8.4 cm and inner edge flattened, was discovered among the goods from Neolithic grave 4 at Rutzing in Austria[425]. Spondylus annulets with an external mean diameter of 7.8 cm were discovered at the Middle Neolithic site of Dispilio (Northern Greece). According to R. F. Veropoulidou and R. F. Infantis, judging by the mean internal diameter of 6.2 cm that is suitable for an adult's wrist, the possibility of being utilized as bracelets is persuasive. Nevertheless, they are in agreement that the employment as armlets, anklets, hair circlets, or even as plain pendants still exists and is supported by ethnographic parallels[426]. In the

412 Tsuneki A. 1988; Halstead P. 1993; Souvatzi Stella 2008 who re-examined the Spondylus bracelets' assemblage from Dimini.
413 Karali-Yannacopoulos L. 1992.
414 Karali L. 1991.
415 Miller D. 2003; Nikolaidou Maria 2003.
416 Dimitrijević V. 2006.
417 Theocharis D. 1973, p. 188, fig. 116 map; 1989; Séfériadès M. 1995a, p. 239; Karali L. 1999, p. 47–48; Kyparissi-Apostolika N. 2001.
418 Dimitrijević V., Tripković B. 2004; 2006.
419 Vasić M. 1910.
420 Nandriș J. 1976, p. 64; Milleker Fl. 1938, p. 113; Chapman J. 1981, p. 456, Table 19.
421 Ivanov I. 1978, p. 62.
422 Ch. Strahm personal communication 1993.
423 Ivanov I., Avramova M. 2000, p. 48/9.
424 Honch N. V. et al. 2009.
425 Kloiber Ä., Kneidinger J. 1968, p. 30.
426 Veropoulidou R. F., Infantis R. F. 2004, p. 64.

Alföld Linear Pottery burials from Gubakút (Hungary), the deceased, placed with uplifted knees and lying on their side, were still wearing a Spondylus armlet on the arm among other jewelry.

Archaeological comparanda, iconographic material, and ethnographic support constitute a rich body of evidence as to the multiple values of the Tărtăria arm band and similar adornments: aesthetic, economic and conceptual[427].

VIII.A fragment of a pendant in the form of horns of consecration

Among the pile of the objects, there is a fragment of an "idol-shaped pendant" in form of an "anchor" as the term has been conventionally used, although any connection with sailing or fishing is highly unlikely. The inventory number is P414. It was published in fig. 6.5 in N. Vlassa 1963; Maxim Zoia 1991, p. 177, Kat. 97; Merlini M. 2009d: p. 536. The artifact is 5.7 cm high and 6.2 cm large. The diameter of the "neck" is 2.5 cm and the diameter of the hole is 0.627 cm. The body of the object is elliptic and flattened. The arms are laterally elongated.

This is the most controversial piece from the ritual pit-grave[428] because some authors[429] connect it with clay hooks or with the anchor-shaped charms that occur in the Coțofeni and Cernavoda-Ezero cultures (ca. 2900 – 2500 BC). According to the scholars mentioned above, the clay anchor is absent from what they call (utilizing an obsolete chronology) "Vinča-Turdaș" sites, but it is present particularly in the Coțofeni settlements. In particular, E. Neustupný asserted that all the layers of the Transylvanian pit contained a chronologically mixed complex and pointed out that the clay 'idol-shaped pendant',[430] extracted from the layers in which the tablets were found, resembled the "anchor ornament" common in the context of the Early Bronze Age of the Aegean area and also in the Late Chalcolithic Coțofeni culture, more or less synchronous with Jemdet Nasr culture[431]. However, Gh. Lazarovici and Zoia Maxim documented that the Transylvanian object had little to do with these later instances which[432], for example, are rounded and not with an oval base, as it has[433].

Other scholars followed the association between the artifact from Tărtăria and the small anchor-shaped double hooks of terracotta widespread in the Bronze Age[434]. These hooks have been discovered in the Eastern Mediterranean in the Early Bronze Age[435], and Middle Bronze Age[436]. They have been recovered slightly later in the Central Mediterranean, as in Sicily[437], Lipari,[438] Sardinia[439] and Malta[440]; on stelae of the western and south-western Iberian Peninsula; and in ornamentation of the Carpathian Basin[441]. Paired spirals were often utilized as decorative elements crowning bronze pins recovered from the Eastern Mediterranean to Central Asia, and from Iran to the Caucasus[442].

To summarize, in the Bronze Age, objects portraying symbolic representations of ram horns served as amulets used by distant populations as Iberian tribes, peoples of the Baltic regions, Caucasian Kobán tribes, and even people in equatorial Africa[443]. However, a comparison with the "anchor-shaped" artifact from Tărtăria is inconsistent, conflicting with the stratigraphy of the ritual pit-grave[444].

Discarding the aquatic suggestions, at first sight the artifact gives the impression of being used for holding lightweight material in the weaving process – as in Greece, at Sitagroi (phase V), Servia, Ayios

427 Nikolaidou Maria 2003, p. 358.
428 Zanotti D. 1983, p. 212.
429 Neustupný E. 1968a; 1968b; Boardman J. 1982, p. 28.
430 Inexplicably considered unpublished by E. Neustupný even if it was illustrated by N. Vlassa (1963, p. 489 fig. 6, no. 5).
431 Neustupný E. 1968a; 1968b, p. 35.
432 Lazarovici Gh., Maxim Zoia 1993.
433 Merlini M. 2009d, p. 90.
434 Berciu D. 1967; Dumitrescu Vl. 1969a, p. 92, 99–100, 588–589; Whipp D. 1973, p. 148–149.
435 McCaslin D. E. 1980, p. 51–52, ns. 152a, b; Forsén J. 2009.
436 Caskey J. L.1968; 1969, p. iii, pl. VIII focusing on Lerna. One fragmentary 'hook' (or 'anchor') was found at Pagasae with LM II vases, 1400–1375 BC (Wace A. J. B. 1912, p. 73).
437 Holloway R. R. 2000.
438 Little clay "anchor shaped" hooks from the first half of the II millennium (perhaps between XIX and XVIII century BC) have been found on the summit of Capo Graziano of Filicudi. They belong to the culture of Capo Graziano and are held at the Archaeological Museum Luigi Bernabò Brea of Lipari.
439 Contu E. 2000 concerning the discoveries at Monte D'Accoddi.
440 Murray M. 1925, p. 29; Kipfer B. A. 2000, p. 21. Some Bronze Age fragmented clay votive anchors are, for example, on display in the Museum of Archaeology at Gozo.
441 Kiss Sz., Kiss V. 2000, in particular 72 pl. 1, 76, pl. 3; Kiss V. 2009, p. 328.
442 Golan A. 2003, p. figs. 133/1, 134/10.
443 Golan A. 2003, p. 145.
444 Merlini M. 2009d.

Mamas, and Dikili Tash. Following Ernestine Elster's description, it is not difficult to image the shank of this artifact suspended by a cord or thong slipped through a single hole in a post while "the high upswing of the arms suggests that these could have held supplementary weft threads, reeled off a spindle and then fed from the anchor to the loom"[445].

Unfortunately, unlike the aforementioned examples, the "anchor" found at Tărtăria is not part of a loom because it has the perforation running parallel and not orthogonally to the arms. The perforation was made by drilling only from one part, as evidenced by the fact that one hole is larger and more rounded than the other opening. Therefore, it is a very unproductive suspended object for the weaving process. Coherently, there are not traces of use as a tool in any activity related to weaving.

In search of another explanation for its use, Gh. Lazarovici and M. Merlini discovered that the perforation shuttles are not parallel to the arms eccentrically by five degrees. It is also significant to indicate that the object is grey with a yellow angoba, quite refined, very well polished with a bone or a stick, and has a lot of fine sand in its composition. In summary, considering the quality of the artifact, the points where it was broken, that the orifice is on the axis with the arms and, the features of the holes, it is reasonable to suppose, as N. Vlassa did, that it was worn as a pendant. The low consumption of the holes testifies that it was not worn for a long period.

However, what strange kind of adornment is an anchor-like shape? According to Marija Gimbutas, the artifact might be a fragment of a very stylized human representation, or horns of consecration with a figure in the middle[446].

Fig. VIIB.27. A fragment of a pendant in form of horns of consecration of a ram.

Fig. VIIB.28. The "anchor" found at Tărtăria has the perforation running parallel and not orthogonally to the arms. Therefore, it is a very unproductive suspended object for the weaving process, but could have been worn as a charm.

The anthropomorphic association is based on the comparison with clay schematic figurines with acrolithic heads[447] from the Rachmani phase of the Late Neolithic in eastern Thessaly[448] (4700/4500–

[445] Elster Ernestine 2003, p. 243–245, figs. 6/24–30.

[446] Gimbutas Marija 1974, p. 87.

[447] Triangular hard stone heads – most of them made of marble and sometimes decorated with painted motifs – were modeled for being inserted in a clay body. As an extended meaning, an 'acrolith' is therefore a type of figurine that consists of a clay body – usually consisting of a clay cylinder tempered with much chaff and poorly fired – while the head is a stone (Nanoglou S. 2008, p. 321). Sometimes the term 'acrolith' refers to a statuette that has parts made of different materials (Nanoglou S. 2005). Acroliths are known from the descriptions of Pausanias who mentioned, for example, Phidias' acrolith of Athena at Plataea. In the Neolithic, it is possible that materials other than clay and stone have been joined in such figurines (e.g., bone and clay or, wood and stone), but none of them has survived.

[448] Late Neolithic II and Final Neolithic according to the Greek chronology.

3300/3100 BC[449]) and in particular from Dimini[450] and Rachmani[451]. Acroliths probably existed in the Early Neolithic[452].

In the Danube Basin, the charm from Tărtăria is very similar to the so-called "Thessalian figurine" (BD typology) that was found in a Gumelnița A2 dwelling at Măgura Gumelnița (4500–3950 BC)[453]. It is shaped from fine clay mixed with some mica, very well polished, and burnt at red. However, differently from the Transylvanian artifact, the Gumelnița object has a socket in the base of the neck for an inserted acrolithic stone head, is empty on the inside, and has at the base a pedestal in the shape of a foot.

For comparison, we present also an Anatolian Neolithic anchor shaped marble idol from a private collector (ca. 4000 BC).

Fig. VIIB.29. Gumelnița A2 "Thessalian figurine" from Măgura Gumelnița (Romania) (photo: courtesy of F-MU.S.EU.M. project).

Fig. VIIB.30. An Anatolian Neolithic anchor shaped marble idol (ca. 4000 BC).

Nonetheless, the "anchor-shaped" artifact from Tărtăria was not an idol but a pendant, suggesting that it was an honored emblem rather than merely a decoration. Gh. Lazarovici and M. Merlini suppose that it was a piece of jewelry designed to be hung, representing the horns of consecration of a he-goat[454], or more likely of a ram (male sheep), a prominent sacrificial victim and possibly one of the subjects on the rectangular undrilled tablet. It was a pendant amulet with double open hooks. Naturalistic elements appear rarely in Neolithic figurative art. On the adornment from Tărtăria, a single distinctive defining element as the ram horns depicted in an open, formalized outline symbolizes the whole animal and its power. The sacredness of the ram is expressed through the accent on abstractive horns replete with a mysterious power of growth.

The Eurasian Neolithic design employs four types of ram horns that emerge crisscrossing the dicotomy: horns emerging from a more or less schematic ram-head representation (A) vs. anchor-shaped form or ionic capital–form (B); lyre-shaped form (C) vs. an open-form (D). At Tărtăria, the BD typology was employed, that is, with an opened bivolute.

The stylized ram-horn motif in its four variants is consistent for more than ten thousand years: from the Mesolithic until today. It was not a favorite motif during the Eurasian Upper Paleolithic. In von Petzinger's survey on Western cave art, it is not present among the twenty-six non-figurative signs that appeared repeatedly at numerous sites, all drawn in the same style, and considered by the Canadian scholar as seeds of written communication[455]. However, the ram's horn mark was pervasive in all the subsequent farming societies. It is one of the latest signs dating to the geometrical revolution occurring

449 Nanoglou S. 2008.
450 Tsountas C. 1908, p. pl. 36.1; Talalay L. E. 1991; 2004, p. 149; Skafida Evangelia 1992.
451 Wace A. J. B., Thompson M. S. 1912, p. 43, fig. 25b. Some of them are held in the National Archaeological Museum of Athens.
452 Nanoglou S. 2006.
453 It is 8.1 cm high and is held in the Oltenița Muzeul de Arheologie (Romania), Inv. no. 4653.
454 Merlini M. 2009d, p. 537.
455 von Petzinger 2009.

during the Upper Paleolithic and subsequently dominating –from 5500 to 3500 BC – the graphic imagery of liturgical objects[456].

Ornamented river stones with allegorical ornamentation showing a furred ram head were discovered at Lepenski Vir. Anchor-shaped motifs have been discovered in the Ignatievskaya Cave, located in the northwestern foothills of the southern Ural Mountains (Russia). They are painted together with pictograms and images that have been radiocarbon dated between 7040–6640 BC and 5300 – 4650 BC[457].

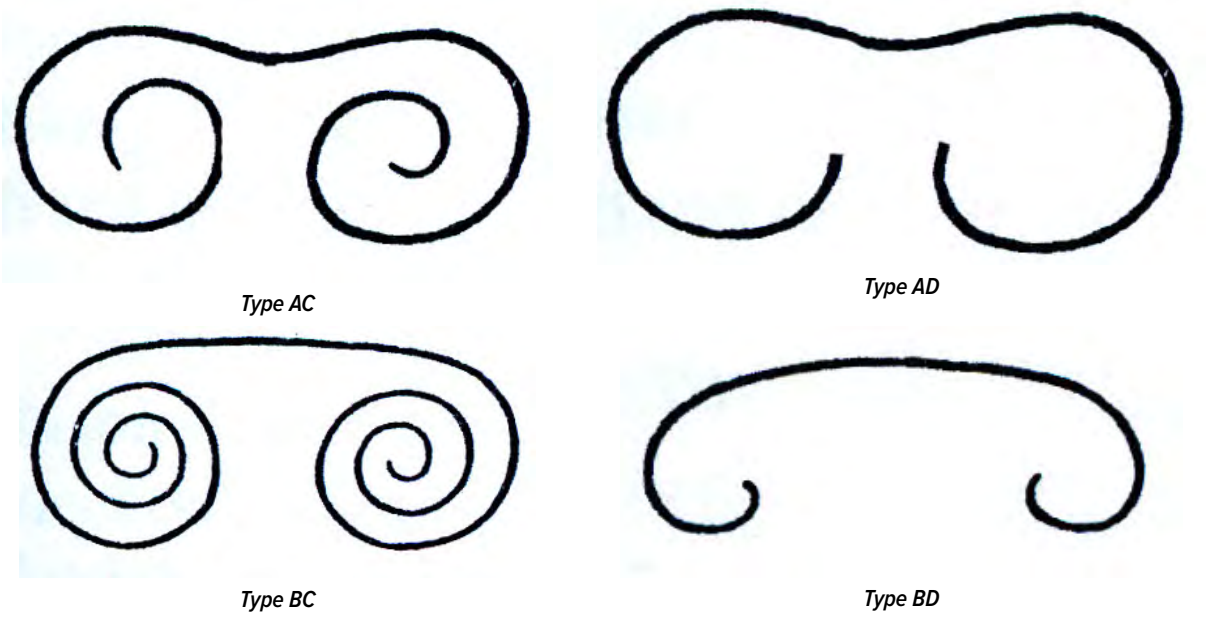


Fig. VIIB.31. Classes of ram horns from Eurasian Neolithic.

Fig. VIIB.32. River stone with allegorical ornamentation showing a furred ram head from Lepenski Vir (Iron Gates, Republic of Serbia).

Fig. VIIB.33. Ram's horn symbol on a river stone from Lepenski Vir (Iron Gates, Republic of Serbia).

In the Near East, early depictions of type AC, AD and BD are found frequently on Anatolian pottery dominating design elements of Haçilar II – IV (6000 – 5600 BC)[458].

[456] Vasilescu V. 1992; Merlini M. 2002a; 2004a.
[457] Steelman K. L. et al. 2002.
[458] Mellaart J. 1970.

Still in present times the ram's horn motif (*Kocboynuzu*) is depicted in the design of flat weave rugs (Kilims) of Anatolia to represent the father, virility, masculinity, heroism, courage, abundance, and power. In Anatolian Kilims, this motif is second in importance only to the Mather Goddess. Anchor shaped marble idols are present in the Syrian Neolithic, too. In the Late Neolithic of Southeastern Asia, the ram's horn type AD is a distinguishing mark on Shindian (Xindian) pottery of Taiwan (around 1000 BC)[459].

Concerning the European Early Neolithic, five anchor-shaped ornaments were found at Sesklo in the deposit of the fourth period[460]. In this settlement, the ram's horn mark is also present on ceramics. Vl. Milojčić documents a fragmentary 'hook' (or 'anchor') from pit *gamma* at Argissa – Magoula (Greece)[461]. Ram-horns of category AB are depicted in the form of snake spirals on the back of a ram-head protome of an Anzabegovo-Vršnik ritual vessel from Anzabegovo (F.Y.R.O.M.) (ca. 5400–5100 BC). The head is characterized by three horns and was originally painted in bright red with white paint between the lines of the horns and around the eyes[462]. In ancient Anatolia, the Aegean, and Crete, three-horned rams were often illustrated on seals and walls.

The pendant from Tărtăria expresses in schematization the BD ram horns type that was more or less naturalistically rendered in the plastic art of the Danube civilization. Several miniaturize Neolithic altars or offering containers that are approximately coeval or slightly subsequent to the Transylvanian amulet display ram heads protomes with open horns and give light on the design of this schematized pendant. At the settlement of Vinča, ram-horned head cult vessels have been discovered in Vinča A[463], Vinča A3[464], Vinča B1[465], and Vinča C3 layers[466]. They have been recovered also at Vinča C3 level[467]. Ram's head are at one end and horns are connected with the rim. The zoomorphic containers are decorated with incised Vs and chevrons encrusted with white paste.

A vessel occurs in the Middle Neolithic retarded Starčevo settlement of Porodin[468]. It is disputable if it is ram-headed. The ram's horn motif is depicted on a globular vessel from the Zseliz III group (LBK Culture). The container was found in grave 531 from the settlement of Balatonszárszó-*Kis-erdei-dűlő* (Western Hungary)[469]. The burial was located on the southern shore of Balaton Lake. A large community settled on this loess plateau in Transdanubia and began to live exclusively on agriculture. Parallel revolutionary changes occur in the scale and structure of the settlement. The beginning of the younger LBK phases is dated to 5300 CAL BC according to the available radiocarbon dates. The fine and large-scale decoration of the vessel is composed of linear motifs such as Vs, horn-like bivolute and bi-parallel lines that in other contexts have been employed as signs of the Danube script. At Balatonszárszó-*Kis-erdei-dűlő*, the decorative intent of the marks is revealed by their huge size and rhythmically and repetitively horizontal alignment vs. a preferential linear alignment and asymmetric coordination of the script[470]. Vs and bivolutes stylize the upper part of the mask of a horned animal (a ram). The linear sequential organization of the frieze and the selected geometric elements indicate that the decoration did not function as a pure aesthetic ornament, but carries a symbolic meaning and message[471].

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459 Ram horns painted design is admirable on pottery jars belonging to the Shindian (Xindian) culture and held in the National Museum of History of Taiwan.

460 Wace A. J. B., Thompson M. S. 1912, p. 73.

461 Milojčić Vl. et al. 1962, pl. 6, n. 45.

462 Gimbutas Marija 1974, p. 150, fig. 133, 134. It is held at the museum of Štip (F.Y.R.O.M.). Inv. n. SF1691.

463 Gimbutas Marija 1989, p. 76, fig. 117a.

464 Vasić M. 1936, pl. CXXIII, fig. 280; Stanković S. 1986, p. 30, pl. I/11. From the excavation in 1908. Found at m. 8.2. It is held in the Narodni Muzej of Belgrade. Inv. n. 1252.

465 Vasić M. 1936, pl. LXXXVIII, fig. 335 a–c; Gimbutas Marija 1974, p. 151, fig. 136; 1989, p. 76, fig. 117b; Stanković S. 1986, p. 44, pl. X/13. From the excavation in 1928–1933. Found at m. 7.635. It is possessed by the archaeological collection without inventory number. Stanković S. 1986, p. 31, pl. II/9. From the excavation in 1928–1933. Found at m. 7.5. It is stored in the archaeological collection. Inv. n. 2776.

466 Stanković S. 1986, p. 31, pl. II/7. From the excavation in 1928–1933. Found at m. 7.5 (?). It is held in the archaeological collection. Inv. n. 2202.

467 Vinča Catalogue 125, 210; Stanković S. 1986, p. 47, pl. XIII/1. From the excavation in 1908–1913. It is possessed by the Narodni Muzej of Belgrade. Inv. n. 1280.

468 Grbić M. 1960, pl. 34/f, cf. fig. 9.

469 Siklósi Z. 2004; Oross K. 2004a; 2004b; 2004c; Bánffy Eszter and Oross K. 2007.

470 Marton T. 2004, p. 86; Oross K. 2004a.

471 Merlini M. 2007a; 2009d, p. 254.

On each of the four stylized rams composing a Vinča zoomorphic offering vessel found at Priština-*Mitrovica* (Kosovo)[472], triple emblematic chevrons ornate the neck, and triple circles occur on the legs, whereas a Danube script inscription is marked within a rectangular "cartouche" positioned on the haunch: ⋙, ◊, ⋘[473]. Interpreting this and similar vessel and figurines, Marija Gimbutas associated the ram and Bird Goddess, being the former "incised with her insignia – chevrons, tri-lines, and parallel lines"[474]. Belonging to the Fafos I group, the altar is inscribed into the Late Neolithic[475].

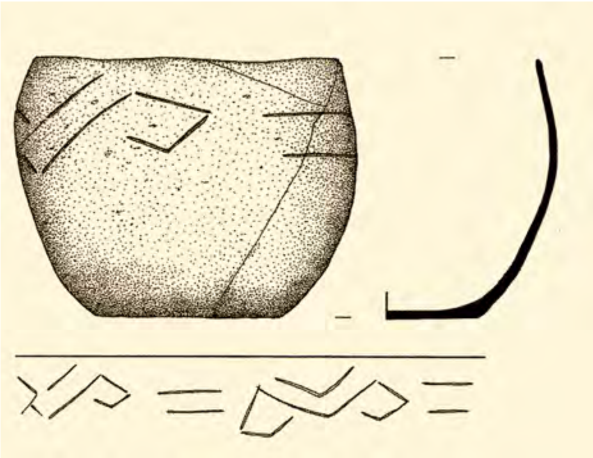

Fig. VIIB.34. A symbolic ram's head on a globular vessel from Balatonszárszó-Kis-erdei-dűlő (Hungary) which belongs to the Zseliz III group (LBK culture) (after T. Marton 2004: 85, fig. 6.1).

Fig. VIIB.35. A text inscribed within a metope cohabit with decorative triple chevrons and parallel lines on a Vinča zoomorphic offering vessel found at Priština-Mitrovica (Kosovo) (after Daniela Bulgarelli © Prehistory Knowledge Project).

In the Late Neolithic, a significant depiction of ram horns of consecration type AD, according to prehistoric artistic sensitiveness and magical emphasis, occurs on a Vădastra II (5100–4800 BC) clay vessel in the form of a model of a sanctuary discovered in the eponymous site (Western Romania)[476]. The container consists of two temples supported on a high podium and topped on pitched roofs by a ram's and a bull's head painted red and deeply incrusted with white paste[477]. According to Marija Gimbutas, a ram and a bull portrayed on the double-headed zoomorphic model are representations of divine protectors[478]. A Vădastra IV altarpiece or temple miniaturize replica discovered at Hotărani – *La Turn* (Southwestern Romania) is topped with three divine ram-horns over beaked muzzles. The horns are markedly stylized and the artifact is decorated with excised and white-encrusted meanders[479]. The object is datable 4800–4600 BC[480].

Remarkable in this context is a part of a Sitagroi III (4950–4700 BC) ritual vase in the form of a roughly triangular head of a ram with broken off horns (Macedonia, Greece)[481]. It was unearthed at the eponymous site. A four-legged sacrificial container with ram head protomes at each corner was discovered at Szeged and belongs to the Tisza – Herpály – Csöszhalom culture (5000–4600 BC[482]). The artifact is decorated with spirals, meanders, and chevrons[483].

The ram-horns on a Vinča C3/D terracotta head with a male mask from Crnokalačka Bara – *Rujiste* (Republic of Serbia) resemble the profile of the amulet from Tărtăria. The statuette is 7 cm in height.[484]

472 Gimbutas Marija 1989, p. 76, fig. 117 3a-3b; 1991, p. 315, fig. 8.16. It belongs to the Museum of Kosovo former Museum of Priština, but is actually held in Belgrade.
473 Merlini M. 2009d, p. 227.
474 Gimbutas Marija 1989, p. 76.
475 Shukriu E. 2004, p. 16, fig. 3
476 It is held in the National Historical Museum, Bucharest (Romania). Inv. n. 15858
477 Mateesco C. 1962, p. 189, fig. 2; Gimbutas Marija 1974, p. 76, fig. 40. Bánffy Eszter incorrectly interpreted it as a house model (2001, p. 57).
478 Gimbutas Marija 1974, p. 67.
479 Nica M. 1980; Gimbutas Marija 1989, p. 78, fig. 124.
480 Merlini M. 2009d, p. 469.
481 Gimbutas Marija 1974, p. 151, fig. 135. It is held in the museum of Philippi. Inv. n. SF 203.
482 Merlini M. 2009d, p. 469.
483 Kalicz N. 1970; Gimbutas Marija 1991, pl. 13. It is held at the National Museum, Budapest (Hungary). Inv. n. 41/1935–1.
484 It is held in the Narodni Muzej of Belgrade. Inv. n. 19.110.

Fig. VIIB.36. The ram-horns on a Vinča C terracotta head with a male mask from Crnokalačka Bara – Rujiste (Republic of Serbia) recall the bivolute shape of the pendant from Tărtăria (photo: courtesy F-MU.S.EU.M. project).

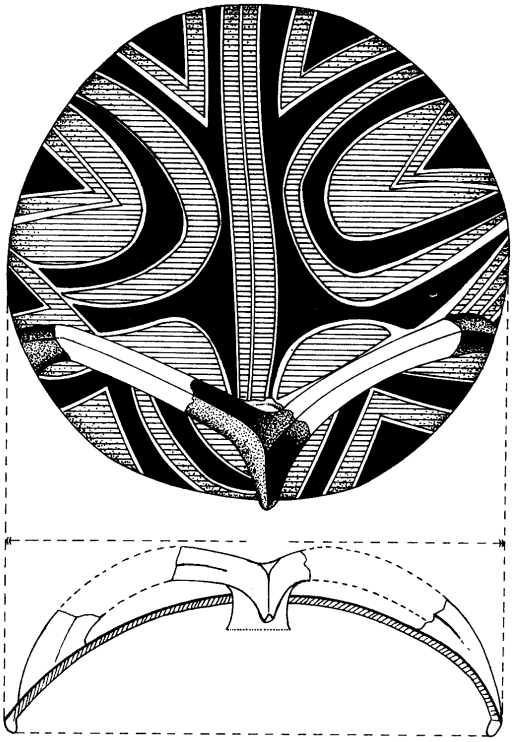

Fig. VIIB.37. The symbolic design of the opened ram horns, according to type AD, informs a handle on a Gumelnița lid from the eponymous site (after Marija Gimbutas 1989, p. 76, fig. 119).

Concerning the Early Copper Age, the front side of a Gradešnica – Brenica sacrificial altar or the fragment of a shrine model[485] recovered at Gradešnica – *Gradishteto*[486] (Northwestern Bulgaria) is significant because it portrays a ram's head with huge horns of the BD type, twisted downwards up to the back.[487] The artifact is datable 4800–4700 BC. The animal is rendered realistically and plastically with a brown polished surface. It is characterized by concentric circles for the bulging eyes and incisions illustrating chevrons, bi-lines and snake spirals[488]. Analogies are findable in an earlier cultic object found at Bgachina, near the village Staliiska Mahala (Montana district, Bulgaria), which belongs to the Late Neolithic, and in a Gumelnița rectangular vase decorated with incised and white-incrusted concentric lines that was discovered at Kapitan Dimitrievo – *Banjata* site (Central Bulgaria)[489].

Gradešnica – *Gradishteto* yielded also a roofless sanctuary model with six zoomorphic heads projecting from the walls. The main protome has ram horns and a beak[490]. A three-legged ram-shaped container has a head with snake coil horns (type AC) on the front, and stream motifs on the sides. It comes from Yasatepe (Central Bulgaria) and, according to Marija Gimbutas, is dated 5000–4500 BC[491].

Massive ram heads protrude from the walls of two Late Vinča (ca. 4500 BC) rectangular altarpieces or offering containers[492]. They come from shafts of a copper mine[493] at Rudna Glava in the municipality of Majdanpek (140 km east of Belgrade, Republic of Serbia). A horned ram's head is applied on each of the two main sides of the first altarpiece that displays symbolic chevrons and S signs[494]. The second altarpiece has only one horned ram's head on the front, and is decorated with huge chevrons and meanders[495]. The

485 Gimbutas Marija 1989, p. 76, fig. 118.
486 It was discovered in layer C.
487 It is held in the museum of Vratza. Inv. n. A835.
488 Nikolov B. 1974, p. 103.
489 Detev P. 1950, p. II, 1f; Gimbutas Marija 1974, p. 151, fig. 137.
490 Nikolov B. 1974; Gimbutas Marija 1991, p. 259, fig. 7–56/2.
491 Detev P. 1965; Gimbutas Marija 1989, p. 77, fig. 121.
492 According to the archaeologist in charge, they are small pottery votive altars with deer's heads made for farmers' gods (Jovanović B. 1985).
493 Mine 2G.
494 Jovanović B. 1980, p. 167; 1982, fig. 27; 1995, p. 29, 35.
495 Jovanović B. 1978, p. 14, fig. 10; 1982, fig. 8; 1985, fig. 27; 1996, p. 58; Gimbutas Marija 1989, p. 69, 70, fig. 110/1a; Tasić N. 1995a, 157, pl. I, 4–6.

stylized arched horns of the animals elongate up to the rim. A three-legged altarpiece with three ram heads was unearthed at the Late Vinča site of Predionica[496].

The symbolic design of the opened ram horns, according to type AD, is visible in the form of handles on Gumelnița and Cucuteni lids[497]. The horns on a fine Middle Copper Age ram figurine from a site near Jordanów (Jordansmühl), Silesia (Southern Poland) that belongs to the Late Lengyel culture (4400–4300 BC) have the same silhouette as the bivolute on the pendant from Tărtăria. On the statuette, the fleece is described utilizing typical cord impressions of Funnel Beaker (TRB) pots[498]. A miniaturize (l. 7.5 cm, h. 4.5 cm, w. 3.5 cm) ram statuette with horns, type AD, has been discovered at Bodești – *Frumușica* (Romania). It pertains to the Cucuteni B2 – Trypillia C1 culture (3700 3500 BC[499]). A geometry that denotes both an apotropaic image averting evil and a fertility symbol is often seen on contemporary Carpathian kilims. It looks like spirals or reciprocating spirals and is called "ram's horns"[500].

We have documented the ram horns motif in plastic art (figurines, altars, altarpieces, cult container, and miniature sanctuaries) of the Danube civilization as well as an evocative ornamental pattern on pottery, and the emblematic outline of pendants. The ram's horn mark was employed not only as a decorative motif, but also as a symbol conveying messages. The symbolism of the ram horns was so moving, inspiring and powerful that this extremely simple and effective geometry migrated into the inventory of the signs of literacy. The Danube script records two pictographic/ideographic signs rendering the type BD, open ram horns (), and the type AC, closed ram horns (). They recur twenty-three times in the inscriptions. It means that 1.9% of the corpus of the inscriptions includes bivolute pictograms/ideograms. The highest recurrence of these signs in a single inscription is two times. The ram horns signs deserve special scholarly attention due to their distinctive position or expanded dimension on inscribed artifacts, and their historical importance with religious and mythical signification.

In the Accumulative stage of the Danube script (ca. Developed/Middle Neolithic), the ram horns signs occur together in a seven-sign inscription on a round ceramic stamp-figurine that was recovered at Govrlevo – *Cerje* (nearby Skopje, F.Y.R.O.M.)[501].

The item is a stamp with a handle in the shape of a stylized statuette, combining elements of both typologies of objects[502]. The inscription was engraved on the base border of the artifact and surrounds a second inscription that was incised in the centre of the base. Both the inscriptions were deeply carved in order to imprint literacy patterns on a soft surface. The inscription with the ram horns signs has a circular format and a linear horizontal sequence of signs. It is characterized by ligatures and dots possibly utilized as separator marks to distinguish concepts[503]. According to G. Naumov, the presence of dots may determine a numerical and spatial disposition. Its common correlation to zigzag lines may further point to the existence of prescribed principles structuring ideogram communication[504]. The stamp-figurine from Govrlevo was unearthed bordering a large ceramic structure (dwelling 2) that was marked by the archaeologist in charge as a shrine used in the preparation and baking of bread, arranged with several grinding stones, models of loaves, and the remains of a significant amount of ash[505]. Close to this cult area, one more stamp was discovered[506]. These circumstances, along with the depositional context of the stamp-figurines from Medvednjak and Zelenikovo, clearly demonstrate that unleavened bread, cakes and loaves were marked, in part, by inscriptions stamped throughout the preparation in some dwellings.

In the Danube script, the bivolute type BD is listed as sign DS 028.0 and variant DS 028.1  [507]. In the graphic passage from the symbol to the sign of literacy, a rotation over 90 degrees occurred. The visual process was similar to what happened in Mesopotamia during the mid III millennium BC where

[496] Galović R. 1959, fig. 76/4.
[497] Dumitrescu Hortensia 1966; Gimbutas Marija 1989, p. 76, fig. 119.
[498] Seger H. 1928; Müller-Karpe H. 1974 III/3, pl. 458; Milisauskas S. 1978, p. 172; Gimbutas Marija 1989, p. 78, fig. 123.
[499] Merlini M. 2009d, p. 466.
[500] Welters L. 1999, p. 163.
[501] Bilbija M. 1985, p. 36; Naumov G. 2008, p. 188, fig. 3/5.
[502] In the instance of the stamp-figurines from Anzabegovo, Zelenikovo, Medvednjak and Gorobinci, the inscribed patterns on top of their heads were utilized for imprinting.
[503] Merlini M. 2009i.
[504] Naumov G. 2008, p. 194.
[505] Bilbija M. 1985, p. 35–36; Prijatelj A. 2007, p. 248.
[506] Naumov G. 2008, p. 197.
[507] Merlini M. 2009d, p. 460, fig. 7.F.a.

the earliest cuneiform signs were pictograms all rotated through 90 degrees. For example, in Babylonia the Akkadian logogram (*word* sign) "woman" (no longer the mere *concept* of woman as expressed by the related pictogram) was graphically expressed by rotating over 90° the pubic triangle of the ancient pictorial writing ▽ and placing it within a vertical arch:  [508]. The excavations at Uruk evidence this graphic evolution from pictograms to cuneiform.

The databank of the inscriptions of the Danube script (*DatDas*) records eighteen occurrences of the DS 028 sign. This means that ca. 1.5 % of the inscriptions include it. Concerning the chronological distribution, ca. 66.7% of the occurrences is concentrated in the Neolithic and ca. 33% in the Copper Age. The cycle of life of the open ram horns sign is quite compact, lengthening between the Accumulative stage of literacy (ca. Developed and Middle Neolithic) and the Stamina stage (ca. Early Copper Age), e.g., the bulk of the Danube script, with a tail in the last phase (Eclipse stage, ca. Late Copper Age). Its maximum presence is in the Blooming stage of the script (ca. Late Neolithic), when the system of writing reached its peak: 44.4%. The Accumulative stage accounts for about 22.2%; Stamina stage, about 27.8%; Eclipse stage, about 5.6%.

During the Middle/Developed Neolithic, the open ram horns sign was present in the LBK II culture (in Germany), in the Macedonian Developed Neolithic (in F.Y.R.O.M.), and in the Albanian Blaz III cultural group. In the Late Neolithic, the champion was the Vinča C culture, recording 50.0% of the recurrences in the period, with its hub in Serbia. The leading cultures in Romania, Hungary and Czech Republic were distant in sign production. They are, respectively, Turdaș, Tisza-Herpály-Csöszhalom, and Late Bandkeramik. The Early Copper Age culture that employed the most signs under investigation is the Bulgarian Gradešnica–Brenica (60.0% of the frequencies within this period). Very limited was the contribution from the Lengyel II (Hungary) and the Boian-Poljanica (Bulgaria).

The open ram horns sign is distributed over thirteen sites as element of complex inscriptions. They are comprised within the central Balkans: Bulgaria, Republic of Serbia, Albania, F.Y.R.O.M., Romania, Hungary, Czech Republic, and even Germany. Among the occurrences of the DS 028 sign, the most frequently inscribed objects are vessels and potshards (with a much higher frequency than the totality of the signs) where the presence is restricted to the rim/upper body area. They are followed very far by seals (in the Middle Neolithic), zoomorphic statuettes (in the Late Neolithic), human figurines and altars-offering tables (in the Early Copper Age), and spindle-whorls (in the Late Copper Age).

In the Blaz III culture (equated with the Dunavec-Cakran culture), from the last phase of the Middle Neolithic, the open bivolute sign is incised in two inscriptions occurring on the rim/body area of a vessel discovered at the eponymous settlement[509]. In one inscription, the main sign  is present and, in the other inscription is the variant  [510]. On a LBK II potshard from the rim/upper body area, the open ram horns sign is an element of a complex inscription composed of fifteen signs. The fragment of pottery was recovered at Želec (Germany).

In the earliest stages of the Vinča culture, inscribed animal statuettes were not present or were unimportant: they were absent during the Vinča A phase and remained marginal during Vinča B. The utilization of zoomorphic representations to carry literate messages materialized in the subsequent Vinča C phase. On a standing owl–shape statuette from the Vinča settlement[511], the  is positioned in a central location within[512] a long inscription comprised of six signs. The distinct signs of the inscription are very difficult to identify because they are arranged along a chain rounding anticlockwise and surrounding the strongly underlined sexual barycenter (a fertilized egg?) in order to link concepts or sounds. The last sign is an isolated inverted chevron. The shape of the inscription is rendered as the wing of a bird. The statuette shows an identification mark instead of the beak. It was recovered by Vasić's excavation in 1924. On the rim/upper body area of a Vinča C pot, both the main sign and the variant  occur within an incomplete horizontal inscription made-up of five signs[513]. On another Vinča C vessel, the appears within a long horizontal inscription positioned just under the neck. If M. Vasić's drawing depicts seven signs inscribed on one side, the inscription should surround the entire artifact[514].

[508] Merlini M. 2009d, p. 29.
[509] Korkuti M. 1995, pl. 76, 6.
[510] Merlini M. 2009d, p. 557.
[511] Vasić M. 1924, p. 08 21 str 40–3.
[512] Merlini M. 2009d, p. 563, fig. 9.72.
[513] Vasić M. 1924, p. 08 15 str 13.
[514] Vasić M. 1924, p. 08 30 str 82.

A bi-sign inscription associated with a decoration on a vessel from Turdaș is very significant because it is comprised of a  and a  connected with a ligature. The format of the inscription is vertical in the sequence of signs; the direction is from top to bottom[515].

In the Late Bandkeramik culture (5000–4800 BC), the databank *DatDas* records signs of the script on a fragmented mignon cup. Locally made at Mohelnice (Moravia, Czech Republic), the artifact was previously dated to 5500–5300 BC[516]. The long inscription employs two times the aligned in some way with other eleven signs including the horizontal Y-like, the X-like, and vertical lines. The signs were engraved "from left to right"[517], but have to be read "from right to left"[518]. A horizontal stroke splits the text in two parts. The signs are divided by separator marks aimed to articulate the stored and transmitted message[519].

Remarkable is a double inscription (divided by three lines) occurring on the rim/upper body area of a potsherd that was unearthed at the mound of Kremenyák at Čoka (southeastern Hungary)[520]. The is an element of an inscription composed of eleven signs that is running in circle but has to be read according to a horizontal sequence of signs. The fragment of pottery belongs to the Tisza-Herpály-Csöszhalom cultural complex[521].

In the Early Copper Age, evidence of the pictogram/ideogram of the open ram horns recurs two times on an anthropomorphic figurine from Slatino (Bulgaria), which was found in horizon 3 of the Gradešnica – Brenica culture[522]. The inscription has thirty-seven signs arranged according to a free format. The discoverer noted that this statuette is distinguishable for its peculiar 'ornamentation' departing from the canon of the decoration of female figurines. Therefore, he placed it in the group of objects with signs[523]. The related heaping up of signs was inserted inside *DatDas* more for a dissimilarity from the standard decoration on female figurines than for clear features as a script[524]. The occurs also on a Gradešnica – Brenica fragment of a vessel discovered in 1966 from a site located 3 km northeastwards from the village of Borovan, next to Lapchovets (Bulgaria)[525]. The is the starting sign of a seven-sign inscription belonging to the Boian-Poljanica culture, Poljanica IV group (4700–4500 BC) that was discovered at Ovcharovo tell (Bulgaria)[526]. The appears within a five-sign inscription engraved on a Lengyel II miniature altar from Aszód, in Hungary[527]. Finally, a miniaturize occurs among other nine signs in an inscription engraved on a Late Copper Age spindle-whorl from Győr Szabadret (Hungary).

In the Danube script, the ram horns type AC is among the pictographic/ideographic signs depicting animals: DS 087.0 [528]. The databank of the inscriptions of the Danube script (*DatDas*) records five occurrences of this sign. It is not very frequent, however its occurrence is long-lasting from the Formative stage of literacy (ca. Early Neolithic) up to the Stamina stage (ca. Early Copper Age). It is used as an element of inscriptions incised mainly on anthropomorphic statuettes and stamp-figurines, as well as on mignon altars and potshards.

In the Formative phase of the Danube script, the ram horns sign is prominently displayed, connected with a chevron on a vertical inscription positioned on a side of a liturgical table from Nevestino-*Moshteni* (Bulgaria)[529]. The pattern is very similar to one on the already mentioned vessel from Balatonszárszó-*Kis-erdei-dűlő*. The Bulgarian offering vessel is concerned with the Gălăbnik group, a local evolution of Karanovo I and II horizons in the Upper Struma valley in western Bulgaria[530]. The

[515] Todorović J. 1969, p. VI, 19; Winn S. 1981, p. 278, fig. 108; Merlini M. 2009d, p. 568, fig. 9.75.
[516] Bartoněk A. 1977, p. 422; Makkay J. 1990, p. fig. 22; Kruta V., Lička M. 2000, p. 75; Merlini M. 2004a.
[517] Bartoněk A. 1977, p. 422.
[518] Kruta V., Lička M. 2000, p. 75.
[519] Merlini M. 2009d, p. 247, 268, 611.
[520] Banner J. 1960.
[521] Merlini M. 2009d, p. 263, fig. 5.181, 597.
[522] Čohađiev St. 2006, p. fig. 159, 4; fig. 158, 3.
[523] Čohađiev St. 2006, p. 71.
[524] Merlini M. 2009d, p. 271; 618.
[525] Nikolov B. 1979, p. 16, fig. 2/c.
[526] Todorova Henrieta et al. 1983, pl. 45.5.
[527] Kalicz N. 1985, fig. 70/3; Bánffy Eszter 1997, p. 100, fig 1; Lazarovici Gh. 2000, fig. 3.9.
[528] Merlini M. 2009d, p. 460, 7.F.b List of the pictograms/ideograms.
[529] *Kunst-und Ausstellungshalle der Bundesrepublik 2004*, p. 62, fig. 12; Genadieva V. 2005.
[530] Pavúk J. 1991; Pavúk J., Bakamska Aneta 1989; 1995; Pavúk J., Čohađiev St. 1984; Merlini M. 2009d, p. 499, 521. Recently, J. Pavúk started to examine it as an independent and well defined cultural unit coeval and existing between the Anzabegovo-Vršnik I group on the Vardar and the Karanovo I culture in the Thracian plane (2007b; Merlini M. 2009d, p. 521).

cultic artifact is squared and 16 cm high. It is characterized by four short legs, four conical protuberances at the corners, and a high cylindrical hollow neck. It is actually a lamp[531].

The bivolute sign is also present on an incomplete vertical inscription on a Starčevo-Criș (Körös) IIIB potshard made of rough paste that was discovered at Trestiana (Romania). Even in this case, it is connected with V signs[532]. The inscribed fragment of pottery was unearthed from Level I, dwelling C/L.3[533], where a pit with sheep skulls, a hearth, and a nearby clay table – altar with two anthropomorphic statuettes were found. In other areas of the dwelling, offering table – altars, as well as anthropomorphic, zoomorphic, and conic figurines were further discovered[534]. The nature of these findings evidences the presence at the Starčevo-Criș (Körös) IIIB Trestiana of cult corners situated inside the houses and employing a mobile liturgical inventory, whereas "temples" have not been recovered.

In the Blossoming stage of the Danube script (ca. Late Neolithic), the lyre-shaped ram's horn sign is on display on a vertical inscription located on a leg of a Classical Dimini female figurine. It was discovered at Makriyialos Pieria[535], a horizontal settlement in Northern Greece that ended up to an area of 50 hectares of habitation[536]. Legs, vulva and belly of the statuette are incised with signs of the Danube script.

In the Stamina stage of literacy, the DS 087.0 sign appears on an inscription incised on the front of a Gumelnița A2 anthropomorphic asexual statuette with a prismatic body that was recovered at Măriuța – *La Movilă* (Călărași County, Romania)[537]. The body is segmented by four horizontal lines that have been utilized as registers to incise packages of information. The inscriptions are complex and difficult to detect because the burnt to redbrick figurine is very small (h. 36 mm, l. 29 mm, g. 14 mm), ruined by time and occurrences, and the signs were superficially engraved in mignon size.

Marija Gimbutas annotated that with the advent of animal domestication, it is not surprising that the ram emerged as a cult animal if one considers its relevance to subsistence. Sheep and goats account for 90% of animal bones found in Neolithic settlements. Ovine fleece provided warmth and their flesh supplied nourishment[538]. In fact, the stylized ram-horn motif is not present before the "Neolithic revolution". Coherently, other scholars interpreted the ram image as a symbol of plenty, of wealth[539].

However, the essentiality of ovine animals to the prosperity of the agro-pastoral communities of the Danube civilization cannot completely explain why the ram sign became so highly popular, was consistent for more that four millennia, and enjoyed very wide dissemination in all the farming cultures and cultural groups. Ram skulls were among the pivotal remains (beside bucrania, fragments of statuettes, ritually broken and complete vessels, as well as other cultic items) of ceremonies aimed to delimit and sacralize the space during the foundation of a Precucuteni-Trypillia settlement. These items were laid, as votive offerings, in ritual pits such as those discovered at Traian, Târpești, Târgu Frumos, etc.[540]. Why the ram horns? Ancient European farmers did not worship the vital ear of grain or fish, which were their staple food. The ancient Hebrews based their economy greatly on sheep breeding, but they never utilized the bivolute geometry as a revered symbol. On the other hand, Papuans traditionally wore a ram-horn shaped insignia on their chests, although there were no ovine animals in New Guinea. What did the ram horns symbolize for the populations of the Danube civilization? It is obvious that the above-mentioned proposal that identifies the ram with prosperity and wealth, associated with sheep breeding is ungrounded. Therefore, what was the essence of the popularity and sacrality of the ram image in the Danube civilization?

In the Eurasian Neolithic visual milieu, the ram was utilized as a symbol of male sexual potency and phallic deities. Rams are reputed not to fight often, but when they make the decision, they engage the enemy fiercely and indefatigably. Therefore, ram's horns indicate the qualities of leadership, even in a magic-religious sphere, standing for the necessary restraint and stoicism, as well as determination, aggression and perseverance in repeatedly attacking an adversary or to solve intractable problems.

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531 Merlini M. 2009d, p. 522, 253. It is held in the Regional History Museum Academician Jordan Ivanov (Bulgaria). Inv. n. KnA I OF 925.
532 Merlini M. 2009d, p. 509, 510, fig 9.9.
533 Popușoi Eugenia 2005, p. 271, fig. 74.8.
534 Popușoi Eugenia 1990–1992, p. 20; 1997, p. 114–115.
535 Hansen S. 2007. II, Tab. 200, fig. 7.
536 Pappa M., Besios M. 1999a; 1999b; Pappa M. 2007.
537 Parnic V., Lazăr C. 2005, p. fig. 13. It is held in the Muzeul Dunării de Jos of Călărași (Romania). Inv. n. 43249.
538 Gimbutas Marija 1989, p. 75.
539 For a survey, see Golan A. 2003, p. 148.
540 Merlini M. 2009d, p. 612–3.

Blowing ram's horns were employed in powerful ceremonies. Still nowadays, the ceremonial *Shofar* (ram's horn) is an important Jewish symbol performed in rituals concerning the covenantal relationship between God and humankind. It is blown at the *Rosh Hashanah* (literally "head of the year"), marking the start of a new year in the Hebrew calendar. The sound of the *Shofar*, placed in the ear of God, has the power to open the Gate of Heaven, break the veil that disconnect humanity from the YHWH and enable the former to gaze upon His face. *Cantillation* or ritual chanting of Biblical Scriptures is possibly an attempt to replicate the vibrato of the *Shofar*.

The Neolithic typologies of bivolute figures seem to have a different ancestry. The pair of spiral scrolls seems to have a chthonic nature, representing the deity of vegetation and earth and expressing the idea of emergence and growing plants[541]. On the other hand, the ram horns expressing the typology of the Transylvanian charm was for the Hittite a hieroglyph indicating the sky. In Sumer, the ram was linked with Ea, the water and fertility god. Egyptians had this bivolute form as a symbol of Dua'wer (the "Great Morning God"), an indication that the sign had been associated with the sky[542]. The above-mentioned Hittite ideograph is apparently akin to the Egyptian hieroglyph designating heaven, which looks like an imaginary celestial canopy on props[543]. Several Egyptian deities took ram form. Most important was Amun that was addressed as the Ram of rams: the virile male, the holy phallus, which stirred up the passions of love[544]. Amun's ram is identifiable because its horns curve downwards. In ancient Greece, the ram was linked with Zeus that was sometimes depicted with ram horns. Still now, in rural areas of Benin (Nigeria) carved ram's heads are placed on ancestor altars where sacrifices were made during the yam harvest[545].

In the Danube civilization the typology BD of ram horns seems to have represented a masculine grapheme. The special attention given to the representation of horns on pots rendered as protomes may have emphasized the ram as a stylized symbol of virility placed on a recipient representing the feminine emblem[546].

In the art of the Danube civilization, the horned ram appears frequently facing the trunk or branches of the tree of life, as in the instance of the not-punctured rectangular tablet from Tărtăria. Here the identification of the ram with the male fertilizing powers of nature is suggested. The World Tree has often been perceived as the embodiment of Female Divinity.

The tree's top reaches to the sky, so that the Neolithic portrayals of the World Tree may have been connected with a symbol of heaven. Even later, in sculptures and on cylinder seals of Ancient Near East, rams often appear in conjunction with trees. In order to guarantee the rebirth of the Earth in spring, the Danube agricultural societies most probably sacrificed to the Earth Mother animals with horns like rams and bulls. Earth Mother was considered the supreme power in reproduction and the ram's blood was a substance that provided life. In the Danube farming communities the force possessed by the animal's blood fortified the earth and fertilized it for an abundant harvest.

We would like to emphasize that the horn motive is used starting with the Schela Cladovei culture until the late Cucuteni B period[547].

In conclusion, there is no reason to force the charm from Tărtăria to the Early Bronze Age, because there are plenty of such items in the Neolithic period when the ram horn design was also widespread. In the Danube civilization, this cultic symbol was employed in the whole range of channels for communicating messages conveyed through decoration, symbolism and literacy. The horn motif was applied on various kinds of objects of all sorts of material over thousands of years up through the twentieth century. The instances mentioned above converge to interpret the opened bivolute geometry, not simply as art for art's sake that had success because the Danube civilization tended sheep. It was the meaningful and straightforward significance of the related pictographic/ideographic sign of the Danube script, too. The horned head condensed the power of the ram. Therefore, the pendant from Tărtăria – a schematic pair of open ram horns on a prop – might represent a specific magic-religious concept.

541 Golan A. 2003, p. 148, 149, 151.
542 Gardiner A. H. 1944; Golan A. 2003, p. 146.
543 Golan A. 2003, p. 145.
544 Werness H. B. 2006, p. 341.
545 Werness H. B. 2006, p. 341–342.
546 Merlini M. 2009d, p. 282.
547 Monah D. et al. 1997; Mantu Cornelia-Magda, Țurcanu Senica 1999.

The presence of this kind of amulet in the ritual pit-grave of Tărtăria has liturgical motivation. Milady Tărtăria as well as her community may have worshipped the sacred ram and utilized its horns as a revered and mythicised emblem of the male principle and the related fecundating strength and protective ability to repel malevolent forces, as the other idols (including the big and small phalli) may also have done.

ENTIRE ITEMS

IX–X–XI. Three inscribed tablets

The respective inventory numbers of the tablets are: P 409 for the discoid piece; P 410 for the perforated rectangular piece; P 411 for the undrilled rectangular piece.

A QUESTIONABLE OBJECT

A blacktopped stemmed cup (fig. VIIB.38–39)

According to an oral communication from the archaeologist in charge, mentioned by O. Höckmann, the grave goods were found in the pit among the shards of a clay vessel[548].

Fig. VIIB.38. The stemmed cup very likely recovered by Vlassa inside the ritual pit-grave.

Fig. VIIB.39. Another view of the stemmed cup possibly from the ritual pit-grave.

After a revision of the material from Tărtăria, N. Vlassa mentioned two channeled fragments of great importance coming from the bottom level of his excavation and not mentioned in the preliminary report[549].

We do not know the final destination of these potsherds, because they do not have an inventory number. However, eight pieces of broken pottery have been incorporated in a high stemmed cup reconstructed and kept in the Muzeul Național de Istorie a Transilvaniei in Cluj-Napoca. The artifact has strict parallels in early Vinča culture[550]. Checking the inventory of the museum, Gh. Lazarovici and M. Merlini discovered that the object was positioned inside the range of the finds from the ritual pit-grave: P 415. Actually, Vlassa recovered fragments of a typical Vinča A3 bitronconic vessel – fine, well executed, hard fired in blacktopped technique, and very well polished – from which he discretionally recreated a high-

[548] Höckmann O. 1968, p. 65, 66.
[549] Vlassa N. 1963, Fig. 8–9.
[550] Vlassa N. 1969, fig. 5; Maxim Zoia 1991, p. 177, Catalogue 86.

pedestal bowl of 28 cm in high. The original blacktop should be ca. 4 cm less tall. Therefore, its vertical measurement should be around 24 cm. The cup is 16 cm in diameter at the mouth and exactly half (8 cm) high, in proportion 2/1. It is capable of 1.9 liters. The base is 10.6 cm in diameter and the feet 4 cm. The cup has two protuberances that are not perforated as in other occurrences.

The blacktop was very used during its life and then intentionally broken smashing it from inside with a tool such as a mace or a stone. Maybe it was the cup employed during the ceremony after the dead of the person buried at Tărtăria. Afterward, it was ritually fragmented and possibly distributed among the community.

VIIC. THE ROLE OF THE TABLETS

GHEORGHE LAZAROVICI, CORNELIA-MAGDA LAZAROVICI

We believe that the tablets are the ritual objects of a "priestess" named by M. Merlini *"Milady Tărtăria"*. The arguments regarding her social and religious role in the community are reflected by the special conditions of discovery, as well as by the funerary inventory and its state. The role of the tablets was to store knowledge and rituals to be followed, as they are suggested by the association of signs and symbols and by their place and position. Comments about the shape and exactness of the signs have been made, so we have resorted to macro-photos of the signs made by M. Merlini and us and to the wax imprints of the signs and symbols. In this way it was possible to check and control the shape, realization technique and shadows.

Fig. VIIC.1 Tablet 1 in the left hand.

Fig. VIIC.2. Superposed tablets 2 and 3 worn as pendants.

Due to its rectangular shape, tablet 1 settles very well in the left hand (fig. VIIC.1) and has its face towards the face of the onlooker. The other two tablets had equal-sized orifices so that they could be worn superposed around the neck as amulets during different rituals. Because neither the orifices nor the tablets themselves were eroded, we suspect only an occasional wearing.

The fact that they were worn as pendants, or kept in the hand, or used for the invocation of energies is in close connection with rituals known from the dawn of civilizations. Such objects, related to priests, sorcerers or saints are extremely numerous[551]. The data we have prove that that time was actually a well organized stage. The presence of the sanctuaries in the Developed Neolithic (see above and below the sanctuaries in the Vinča or Banat cultures) determines us to suggest that the tablets belong to a priestess also having the role of a sorceress (even though we cannot fully demonstrate some of the hypotheses).

The shape, role, content, meaning and significance of the signs and symbols on the three tablets and their role in the ritual depositing are partially analyzed here or have already been discussed on other occasions[552].

[551] Hayden B. 2003.

[552] Merlini M. 2004; 2005; 2005a; 2009d, p. 532; Merlini M., Lazarovici Gh. 2006; Lazarovici Gh., Merlini M. 2005.

Fig. VIIC.3. Tablet 1, face ▲, backside ▼.

THE DESCRIPTIONS OF THE TABLETS

Because the play of light and shadows often blurred the signs' exact shape and realization technique, we copied the signs in wax. In 1981, S. Winn registered 20 signs for Tărtăria[553].

Tablet 1 (fig. VIIC.1–5)

This tablet (Inventory MNIT P. 411; size 52×35×16 mm) is made of a semi-fine paste, having a brick-yellowish color. The mixture contains small sized grains of sand, a small amount of clay and very probably quick lime; the piece was oxidized during firing[554].

The decoration technique is incision; and in order to draw the figures the author pricked the paste with a pointed, slightly blunt object. We believe that the role of the pricking was to fix in a white

[553] Winn S. 1981, p. 190–191, table VI.

[554] Vlassa N. 1962; 1964, p. 490, fig. 7/1=8/1; 1976, fig. 7/1, 8/1 Lazarovici Gh., Merlini M. 2006; *** *Der Turmbau zum Babel,* 2003, III.1, p. 10, 11; Lazarovici Gh., Merlini M. 2008, p. 39; *** *The Danube Script* 2009, p. 115, 74, cat. 2; Merlini M. 2009d, p. 532 and others, ... hundred of images with copies.

substance, maybe the same as the mixture (because in those areas the acid burned more strongly). This experience resulted after the marking of the first lines on the round tablet (Tablet 2) where the incisions that divided the area into four dials were not perfect because of the small pebbles in the paste.
Through this technique the author managed to avoid the direction deviation caused by the small pebbles in the paste. The mixture with quick or slaked lime resulted in deep cracks visible on both sides when sunk in hydrochloric acid. When looking at the details on the surface of the piece we can see that not all the areas on the tablet are equally corroded by the acid. More intensely corroded are some incisions and surfaces, depending on the quantity of powder or quick lime in the binder. The interpretation of the crack was analyzed in different ways.

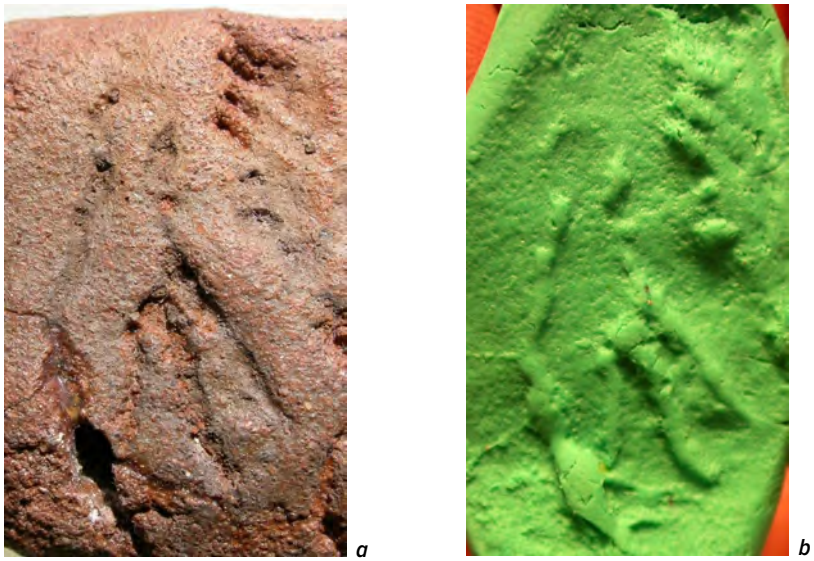


Fig. VIIC.4: a) ▲Tablet 1.1; b)▲ negative on wax; c) the tree reconstruction▼.

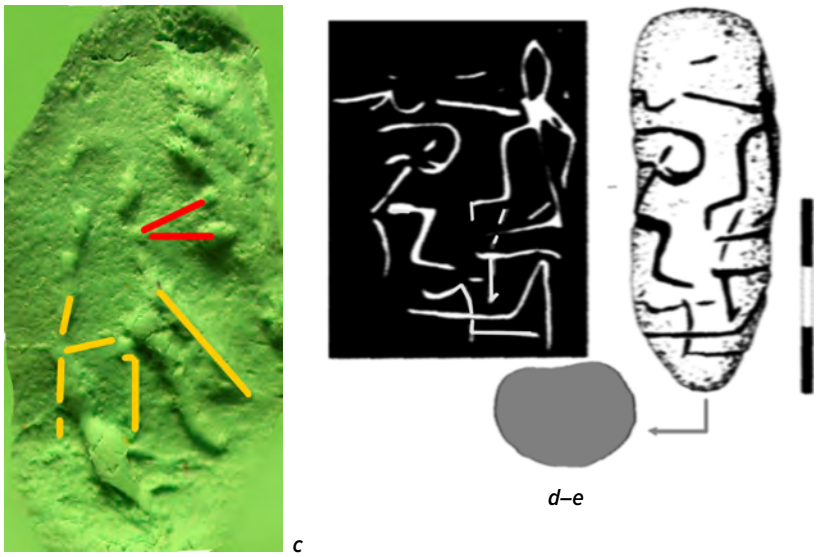


Fig. VIIC.4d-e. Vitănești Măgura, seated character, after R. Andreescu 2009.

Sign 1. Figure on throne. „The shepherd"

All opinions are convergent interpreting the signs as a human silhouette[555]. In one of our previous analysis we argued that the human character had a stick in his hand, but things are not very clear because of a big crack towards the corner. Another hypothesis is that the character is a hunter wearing a bear fur. Tema păstorului cu toiagul este veche din PPN[556].

By studying the wax impression we now believe that it actually represents a character seated on a throne extending his hands to the tree (a fir, an evergreen) in front of him; the character has either legs or a stick. Such human representations are rendered on several other tablets and in the Rock art[557]. A tablet from Tepe Gawra level IX–VIII (Copper Age) renders a shepherd with a raised stick leading a bovine to the woods[558]; so we have an analogy only for the gesture and the stick.

There are some representations for the model of the chair (fig. VIIC.4c), which is simpler than a throne; we have sorted here only those in a similar position related to the context (in our codes, 319c, 319d, 129a, 129, 129c, 129d (fig. VIIC.4f); Winn 1981 code 9; Merlini 2009d, code DS 0360a, 0360a this one is associated as a variant with N. Vlassa's "sledge"[559]).

A human figure on a throne, probably a woman (due to the scarf around the neck) is rendered on a seal from Dudești – the Vădastra culture at *Măgura – Vitănești* (fig. VIIC.4d–e).

555 Makkay J. 1990, fig. 7.
556 Van Berg P. L. WEB.
557 Paul I. 2004–2009, p. 136, fig. 4; Van Berg P. L. WEB.
558 Müller – Karpe H. 1968, pl. 78.26.
559 Merlini M. 2009d, p. 461, 587, DS 090.0.

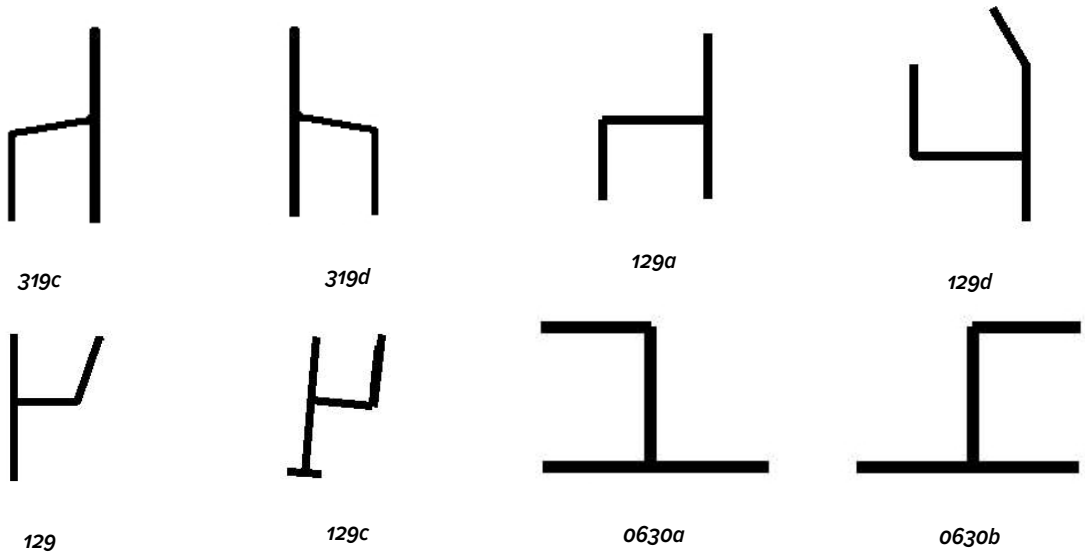


Fig. VIIC.4f. Codes for chairs.

On the mentioned seal (about 5.8 cm height) in front of the woman on the throne there is another woman (due to the hair) kneeling in front of her (fig. VIIC.4d). We believe that a divinity – whom the woman worships – is seated on the throne. The oblong head of the figure on the throne, as well as a line directed to an image rendering a stylized moon, suggests that the seated divinity is the Sun or the Moon; in front of her is the figure in devotion (obedience of the author), the priestess[560].

From the same place there are two other pieces (we do not know if they come from the same complex) that will be later analyzed.

Sign 2. The tree of life

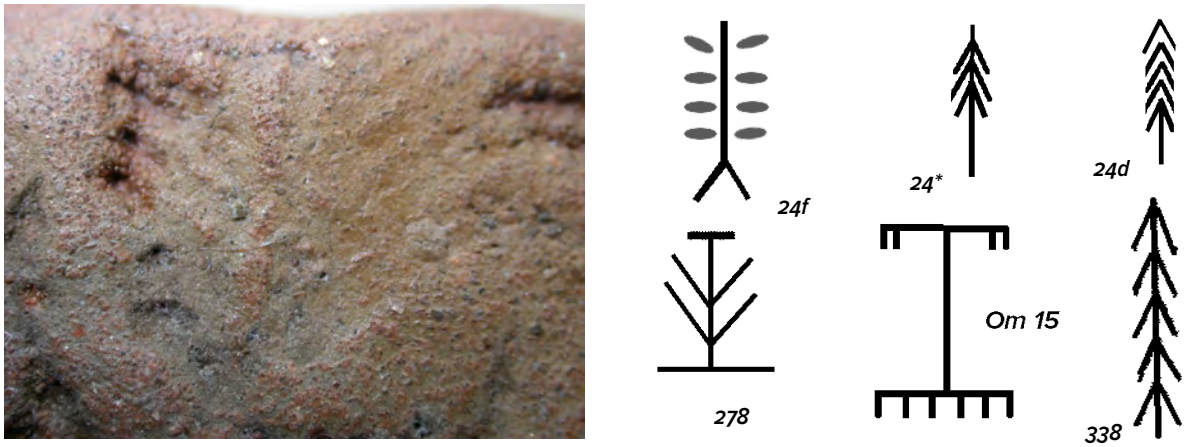


Fig. VIIC.4g. The tree of life on the tablet and different other representations with their codes.

Due to the branches, the tree seems to be a fir, an evergreen, assimilated to the tree of life. On the wax copy of the tablet the hands of the character, as well as the relief of the tree, are more clearly visible (fig. VIIC.4, Tablet 1.2 d, e).

The tree of life and the plants have several analogies in the signs and symbols rendered on the Neolithic and Copper Age pottery. Most of the researchers interested in the Danube script presented analogies at Turdaș, Kruševo, Jela, Lepenski Vir and others[561]. The tree of life, the plants, the relation man – plant are very frequent in the signs and symbols of the Paleolithic, the Neolithic and other periods[562].

[560] Andreescu R. 2009, p. 84, fig. 2.

[561] Roska M. 1941, 112/10, 135/3; Makkay J. 1969/1990, 13/6, 9, 22, pl. VIII: in Middle East, pl. 14; Gimbutas Marija 1991, Yebug, Tomb 4: 5.23/1–2; Winn S. 1981, code 29, 30, with analogies, tab. III, p. 240, code 117, Turdaș 106, 169, Vinča 17: 167; Leroi-Gourhan A. apud Hayden B. 2003, p. 133; Teodor D. 2003, fig. 5, n. 36B B runes; *** *Der Turmbau zu Babel* 2003, IIIN, 3.1.2.3b; Haarmann H. 2004–2008, p. 19, fig. 1; 2008b, p. 64, fig. 2 analogies at Troy; Merlini M. 2008, p. 55, fig. 5/2, 7, 8; 2009d, p. 461, DSD 051.0, 052.0.

[562] Golan A. 2003, p. 368–378.

Fig. VIIC.5. a–b) Flock of goats.

Fig. VIIC.5. c) Rendering manner of a rhinoceros herd in French-Cantabric art.

Sometimes the tree is represented as a multiple arrow oriented towards the sky; therefore we believe it represents a fir (codes 24*, 24f, 24d 338) (fig. VIIC.4g). From the macro photos one can see that in some incisions there are remains of a black dye or resin more evident in the case of the figure and the hands. Where this resin was present, the acid did not affect so much the incisions on the tablets, and they were better preserved. Maybe the role of the black dye was to highlight, to mark the contrast between white and black (it is difficult to say, maybe a digital simulation could offer more information). We think a resin was used, because this substance was not affected by the acid treatment in the laboratory.

Fig. VIIC.6a. Tablet 2.

Fig. VIIC.6b. Numbers related to the signs on tablet 2.

Sign 3. "The flock"

We believe the third figure represents a flock of goats.

Part of this is highlighted with a black substance, maybe resin (that can be seen on the human figure, hands, stick, the lower part of the tree, the back of the goat) that protected the original sketch against the action of the acid (fig. VIIC.5a). The manner of rendering the flock, of using black to highlight contours is similar with the prehistoric French-Cantabric art (fig. VIIC.5c). In a figurative meaning, for any priest, the parishioners are "his flock" and maybe it was the same in the prehistoric time; there are several parables regarding the priest's care towards his "flock" even for the "lost sheep" in the Bible. Thus, the *Milady Tărtăria* might be regarded as the priestess of the flock when she holds the tablet in the left hand. It is known that the goat and sheep were the first domesticated animals and perhaps they were grown and moved around in flocks. We should point out that the parts inlaid with white (quick lime) were meant to highlight certain parts, in much the same way as the incised figures were inlaid with white in the French-Cantabric art and at Măgura – Vitănești (fig. VIIC.4d–e).

Tablet 2 **(fig. VIIC.6–23)**

The second tablet (Inventory P. 409; size 61×60×21 mm) was made of a semi-fine paste having a brick-yellowish color and the mixture contained medium sized grains of sand; for degreasing a little clay and probably quick lime were used; it was well-oxidized fired[563].

It has a discoid shape and an orifice in the upper part. A vertical line starts from the orifice; it is crossed by a horizontal line, both dividing the tablet into four dials. The tablet was moulded in the palm, and traces of knuckles can be seen on the body of the piece.

By superposing tablet 3 on it (it also has an orifice) we see that the upper fields were covered by the rectangular tablet when both were worn around the neck. Because there are no traces of friction between them, we can suppose that the tablets were not worn permanently.

In fact, the amulet called 'anchor' also has an orifice that allows it too to be worn around the neck. For easier reference, we numbered the signs on this piece.

[563] Vlassa N. 1962; 1964, p. 490, fig. 7/1=8/1; 1976, fig. 7/2, 8/2; Lazarovici Gh., Merlini M. 2006; Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 206, fig. IIIa.88; *** *Der Turmbau zum Babel,* 2003, III,1, p. 10.11; Lazarovici Gh., Merlini M. 2008, p. 39; ***The Danube Script* 2009, p. 115, 74, cat. 4; Merlini M. 2009d, p. 532 a.s.o.

Lines 1a and 1b. Astral signs

Line 1a might represent the zenith, the acme; as it is coupled with the hanging orifice, it probably is the Sun.

Line 1b might represent the horizon, the union of Sky and Earth; and in this situation the orifice represents the Sun. The Cross sign (code 127, 127g) is very frequent, having different purports.

127 127g

Fig. VIIC.7. The Cross sign (code 127, 127g).

In fact, at Parța as well, in Sanctuary 2 the orifice represent the Sun[564], the place where the light enters the sanctuary, the Moon being attached to the Sun. A similar moon model is painted in the Cucuteni culture, together with other shapes of the moon in the first quarter[565].

Both lines dividing the piece into four dials have some imperfections because the paste contains large sized grains of sand. Therefore line 1a is doubled (maybe a flaw caused by a bigger granule or pebble). The same happens with **line 1b** in the area of sign 9, where there might also be a bigger granule.

Sign 2. The throne

Sign 2 is located on the upper right side. In our opinion it represents a throne pattern (the throne seen from both the sky and the earth). This sign has code number 1a at J. Makkay[566]. Such signs are not very frequent. At Zorlențu Mare on the bottom of a pot there are 7 such thrones[567]. Mention should be made that in Sanctuary 2 at Parța, the Great Mother was placed on the right side of the monumental statuary group[568].

Fig. VIIC.8. Tărtăria, tablet 2.2, details.

In our opinion, in the Neolithic time, the right side marked the feminine part. Generally the main divinity is bigger and presents some symbols that specify its role. For example at Parța the prominent abdomen (the symbol of pregnancy) is rendered to the Great Mother[569]; later, during the Copper Age, at Trușești both characters of the divine couple have the prominent abdomen, but the divinity rendered on the right side is bigger[570].

S. Winn (1981) transcribes very well only one of the 7th thrones rendered on the bottom of a pot from Zorlențu Mare site. We should make one observation about that: Winn mentions that the throne is placed on the body of the pot, as he saw the drawings only, not the original[571]. The analogy from Zorlențu Mare is the closest reproduction realized by S. Winn for the Tărtăria throne (fig. VIIC.9).

564 Lazarovici Gh. et al. 2000b, fig. 6, 8; 2001, p. 224; Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 329.

565 Lazarovici Cornelia-Magda 2004–2008, p. 109, fig. 30–40, 42–43, 44–45; Tkaciuk T. 2004–2009, fig. 13/54, 14/3–4.

566 Makkay J. 1990, code 1a.

567 Unpublished piece, unidentified after multiple movements of Reșița museum in four different buildings, until the last centre today.

568 Lararovici Gh. et al. 2001, p. 227, fig. 185–186.

569 Lazarovici Gh. 1998, p. 10, fig. 2/3; Lazarovici Gh. et al. 2001, p. 220, 226, 230–234, 237–238, 240.

570 Petrescu-Dîmbovița M. 1953, p. 7 ff.; 1954, p. 7 ff.; 1955, p. 165 ff.; 1959, p. 63 ff; 1962; Monah D. 1997, p. 38, fig. 9/1; Lazarovici Cornelia-Magda 2002; 2004, p. 47, 49 ff., fig. 1.

571 Winn S. 1981, p. 275, nr. 2; bibliography that was cited has no connection with Zorlențu Mare, fact that can be explain while he does not know Romanian language; our study followed the one of C. Daicoviciu; Lazarovici Gh. 1971, p. 22 ff.; p. 32 – summary in German language.

Returning to the sign under discussion, it can be said that in fact it represents a double throne. The throne is seen by the person looking from the Earth, but the same shape appears to the one looking from the Sky[572] (we mean the idea of divinity). The sign was coded and analyzed by several researchers: J. Makkay (code 1a), S. Winn (code 60, ~ 210; 2004–2009, DS 160), M. Merlini (DS 032.1) and Gh. Lazarovici (0321Om + throne). All these are, of course, derived variants, where idea of throne is not all the time equally suggestive. We have accepted S. Winn's variant that received code 0321a based on the piece discovered at Zorlențu Mare.

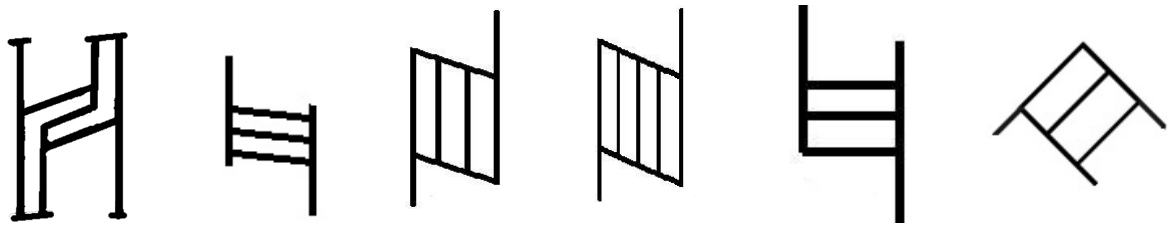


Fig. VIIC.9. Codes after: S. Winn, Gh. Lazarovici and M. Merlini.

As we have mentioned before, 7 signs appear at Zorlențu Mare. A number of 7 thrones and / 7 statuettes is associated in two sets of a priestess' inventories (in our opinion); at Isaiia there are two and at Poduri three sets of 7 figurines representing goddesses (in Dan Monah's opinion that we agree with); to these have to be added other discoveries related to number 7 (statuettes, grinding stones)[573]. N. Ursulescu and D. Monah consider that both discoveries, Isaiia and Poduri are shamans' inventories. Monumental thrones (rendered in life-size) or fragments of such monumental thrones as old as from the Developed Neolithic were discovered at Vestö – Magór, in the Szakálhát culture in Hungary[574], in the Precucuteni culture – the sanctuaries at Sabatinovka[575], in several sites of the Cucuteni culture such as Lipcani[576], as well as in the sanctuary scale model at Vounas[577].

The throne is meant for the priestess who is the representative of that particular divinity in the sanctuary[578].

Idols seated on the throne are first represented during the Neolithic, and become more frequent in the Late Neolithic and the Copper Age. The "throne" from Tărtăria, seen from two perspectives (from the Sky and from the Earth) underlines the relation between the owner and the divinity; but this relation is known only to some (the covering of the upper part of the tablet), a situation that is true about other signs too. We believe these are some of the main elements of initiation. Number 7 is very frequent in the Neolithic and the Copper Age civilizations. We can illustrate this with examples such as: the number of 7 groups of priestesses (young, mature, old) as representatives of 7 divinities (Isaiia, Poduri etc.)[579], 7 idols (the bone statuettes at Pietrele (Gumelnița culture), some in sanctuaries such as Drăgușeni; at 'Ain Ghazal sanctuary 4, Yarmukian; Poduri – *Dealul Ghindaru* Sanctuary L36 fireplace 1; at Măriuța – *La movilă* (Gumelnița culture) 7 anthropomorphic statuettes)[580], 7 grinding stones deposited in the sacred houses or in the house of the priestess (Balta Sărată)[581] a.s.o., 7 benches (Gălățui – Sanctuary at *Movila*

[572] See sacred house, sacred liquid at Zorlențu Mare: Lazarovici Gh., Lazarovici Cornelia-Magda 2010, fig. 8.

[573] Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 75, 123, 149 a.s.o.: Lazarovici Gh., Lazarovici Cornelia-Magda 2009, p. 253.

[574] Hegedűs K., Makkay J. 1987, pl. 3–4, 9; Gimbutas Marija 1991a, fig. 3–23.2.

[575] Makarevič M. L. 1960, 282: Makkay J. 1971, 138; Gimbutas Marija 1984, p. 74, 25; Zbenović V. G. 1996, p. 33; Monah D. 1997, p. 36, 255, fig. 3–1; Lazarovici Gh. et al. 2001, p. 290, fig. 265; Lazarovici Cornelia-Magda 2004, p. 48, fig. 2; Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 143 a.s.o.

[576] Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 143.

[577] Müller-Karpe H. 1974. III, Kat. 115, pl. 343/4–5; Karagheorghis J. 1977, p. 34, 41–42, fig. 13a; Lazarovici Gh., Lazarovici Cornelia-Magda 2006, p. 115.

[578] Functionality given by D. Monah 1997, p. 36; Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 143, 146.

[579] Monah D. 1997, p. 35; Monah D. et al. 1997, p. 109, cat. 14a–d; Lazarovici Gh. et al. 2001, p. 289; Ursulescu N. 2001b, p. 65; Ursulescu N., Tencariu F. 2007, p. 108–119.

[580] Berciu D. 1956; Monah D. 1982, p. 11, fig. 12; 1987, p. 35; Monah D. et al. 1983, p. 15; 1997; Marinescu-Bîlcu Silvia, Bolomey Alexandra 2000, p. 26, fig. 172/9, 175/8; Andreescu R. 2002, 13; Rollefson G. O. 2002, p. 176; Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 132.

[581] Lazarovici Gh., Petrescu M. S. 2001; 2003, p. 164, fig. 22; Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 168–174, fig. IIIa.54–58; 2007, *7 grinding stones,* p. 106, 127; at Pietrele a yellow clay pedestal with *7 clay consecration horns,* p. 137; Măriuța – *La movilă*, *7 anthropomorphic statuettes*, p. 132; Lazarovici Gh., Lazarovici Cornelia-Magda 2009; 7 rafters and 7 pillars, p. 253; 2010, p. 145 ff.

Berzei[582]) and many others related to number 7 (weights in sanctuaries, pillars, columns, eagles, 7 bulls sacrificed at Gornea, 6 cattle and a deer at Zau a.s.o)[583]. We think then that the examples above support some of our hypotheses, even though a complete demonstration is difficult to be done. From among our codes, 150h is the closest, being defined as a feminine symbol[584].

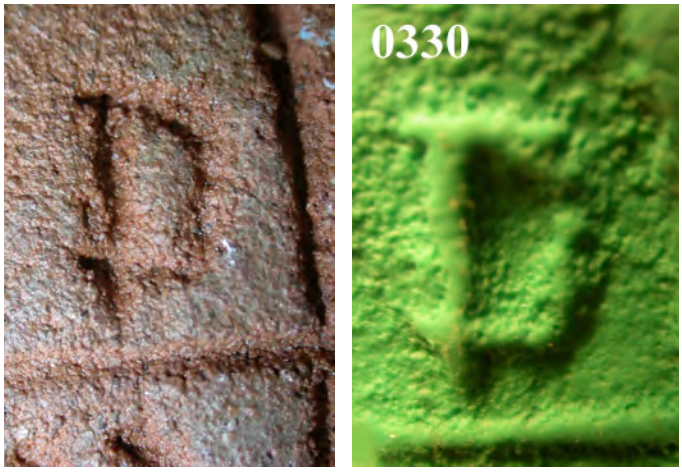


Fig. VIIC.10. Tărtăria, tablet 2.3 (sign D).

Sign 3. The Moon **(fig. VIIC.10–11)**
J. Makkay (1990, code 1b), S. Winn gave code 176 to this sign, and M. Merlini code DS 033.0 for the abstract invariable sigs. Sign 3 is D--shaped (code 0330), drawn in lines that go slightly beyond the contours. As it is located in the right upper part, we believe the sign is connected to the throne defining divinity. We consider that it is a representation of the crescent Moon. Even today when the moon appears in the shape of a D (interpreted as decreasing, in fact it is increasing), the moon is accused of lie in the folk tradition; when it has a C shape it is said to be increasing, though it is actually in a decreasing process.

236 *236a* *236b* *236f* *220d*

Fig. VIIC.11. The Moon, varieties, manner of representations. 220d the Zenith and the lights – upper, the horizon – middle; the underworld – down (the Sun, night, the moon missing from the sky).

If we associate this sign with sign number 2 we can understand the meanings of both signs, 2 and 3: it is the Moon as a divinity and her throne. In fact, both signs being in the upper register, they can be connected with the Heavenly World, while those under the horizon line with the Earthly World.

In our database and catalogues we have similar signs, with the following codes: 236, 236a, 236b, 236f (see references to 220d). We did not consider it necessary to analyze the other aspects of the moon[585]. We should mention that the zenith line (culmination) starts from the fixing hole that can mark the Sun, a divinity that does not participate in the allegory of the tablet. Because the appearance of this sign is very rare we will return to this problem below, where we believe we have some variants for signs 5–8. Sign D was noted by S. Winn with code 176 and has analogies at Medvenjak in Serbia.

In this site the sign was noticed on the idols' head, but the eyes are D-shaped (the eyes suggesting the light as well)[586].

The sign and its variants (**fig. VIIC.11**) appear on a small zoomorphic altar at Vinča[587], or on a small altar at the Nandru site[588]. The small altar certainly was for maintaining the fire, burning and illuminating. This sign (236) is also present on different fragments, bottom of pots or on spindle whorls at: Turdaș[589]; Lozna on a sherd from a cult pot (?) representing an allegory[590] and Gradešnica[591], on a spindle

582 Neagu M. 1999, p. 22; 2000, p. 29–30; 2003, p. 92.
583 Eliade M. 1991, p. 34; El Suzi Georgeta 1996, p. 32; Jovanović B. 1991 pillars at Kormadin; 7 vultures at Çatal Hüyük: Lazarovici Gh. 2000 and bibliography; 2001, p. 67; Lazarovici Gh. et al. 2001, p. 270, fig. 242.
584 Leroi-Gourhan A. apud Hayden B. 2003, p. 133.
585 Has marked with analogies: Makkay J. 1990, fig. 8, code 2b-2e.
586 Winn S. 19181, p. 134, 349, nr. 6.
587 Vasić M. 1936c, p. 926.
588 Von Torma Zsófia 1879, pl. IV5a–b; Vlassa N. 1970, p. 19; Makkay J. 1990, fig. 16/1.
589 Roska M. 1941, pl. 112/10.
590 Teodor Silvia, Lazarovici Gh. 2006.
591 Makkay J. 1990, fig. 28/13; Nikolov B. 1974, p. 110 ff.

whorl at Fafos[592]. Being rendered on altars, the sign represents the idea of light and fire, and on other pieces there are similar allegories or symbols.

Signs 4 – 8. The Feminine period

The signs are located on the left upper part of the tablet and consist of a group of signs: 5 vertical lines cut by a horizontal one and four "D"s (code 236 to us). This group of signs is a very complex cryptogram. Similarly cut lines are noticed in the Upper Paleolithic, the Epipaleolithic in Byelorussia (see fig. VIIC.38).

Obviously, the acid treatment slightly widened and lengthened the lines so that they seem connected. However the wax copy shows their separation. The line size corresponds in the lower row to a D – shaped sign bigger than others. We do not exclude the possibility of an intentional junction of the lines, in this way creating a new sign that we will analyze further on.

a *b* *c*

Fig. VIIC.12. Tărtăria, tablet 2, signs 5–9.

The first D is not complete, it seems to be crossed. In our codes there is a crossed D (code 236a, 236b)[593]. At J. Makkay (1990) it is code 2b–2e, at S. Winn (1981) it is code 27 and DS 166, 167 (2004 – 2009) respectively. These represent the phases of the moon. The small variants of the moon have codes 135 and 128. From among the five short vertical lines the one in the middle is thicker and bigger, giving the impression that the intention was to join it with the second Moon down. Mention should be made that there are two shorter lines (one joined downwards with the large D, plus other two (code 323). The long line might mark the half Moon cycle, that is, the new Moon and the first quarter. The other two short lines correspond to the second quarter and the full Moon[594].

129f *129b* *129b*

f *g* *h*

Fig. VIIC.13. Signs for pregnancy.

[592] Gimbutas Marija 1973, pl. 3, b; Makkay J. 1990, pl. 19/2.

[593] At Nandru: Torma Zsófia 1879, pl. IV5a–b; Vlassa N. 1970, p. 19: Makkay J. 1990, fig. 16/1; at Gradešnica: Makkay J. 1990, fig. 28/13; Nikolov B. 1974, p. 110 ff.

[594] Tkaciuc T. 2004–2008, black moon, fig. 13/53, 14/3–4.

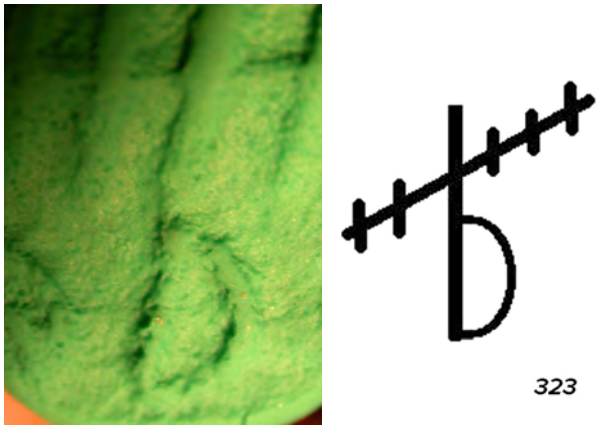


Fig. VIIC.12d. Tărtăria, tablet 2, signs 6.

If we compare the cycle of the moon with the menstrual cycle, after the aspect of the lower moon (fig. VIIC.6b, no. 5) representing the new moon (that is, the first 3 days of the 7 days of the feminine cycle), the "crossing/cutting" seen on the sign (or "hurting") corresponds to the menstruation days (the first three), followed by four unprolific days.

The first moon quarter follows, with the period of maximum fertility (day 13/14), that is the half of the feminine cycle correlated to the upper longer line. This mixture of the two signs (fig. VIIC.12d) is, in our opinion, related to pregnancy/gestation together with other codes (code 236, 236g, 236a, 236b, 236f, 236h, 244, 238, 244b, 323, 238d, 238f, 129b, 129b1, 127f) (fig. VIIC.13a). Sign 323 appears only at Tărtăria; S. Winn (1981) considered it (fig. VIIC.12d, 323 our code) as an individual sign[595]. In our opinion, variants of this sign appear at Lozna[596].

Two other signs follow; 8–9, of which the last is smaller and also crossed. The signs indicate a decrease, the D turning into an O, in our opinion this signifying a diminished possibility of pregnancy/gestation (in the sense of the second moon quarter); the latter is again crossed (in the sense of the full moon), in the same way as the first D, showing the end of the fertile period.

This time it obviously suggests only the feminine calendar not the one of the moon. These signs are located on the left side of the tablet, in fact on the left side of the zenith. The left side as opposed to the right, suggests the heart, love, sin. The part situated left to the zenith suggests a decreasing power of the sun, the beginning of the night and an increasing importance of the Moon.

Above, we have presented the arguments regarding the comparison of the D-sign with the Moon. M. Merlini has brought further arguments regarding the feminine calendar and the moon cycle as apparent in the signs and symbols of the Danube Script[597].

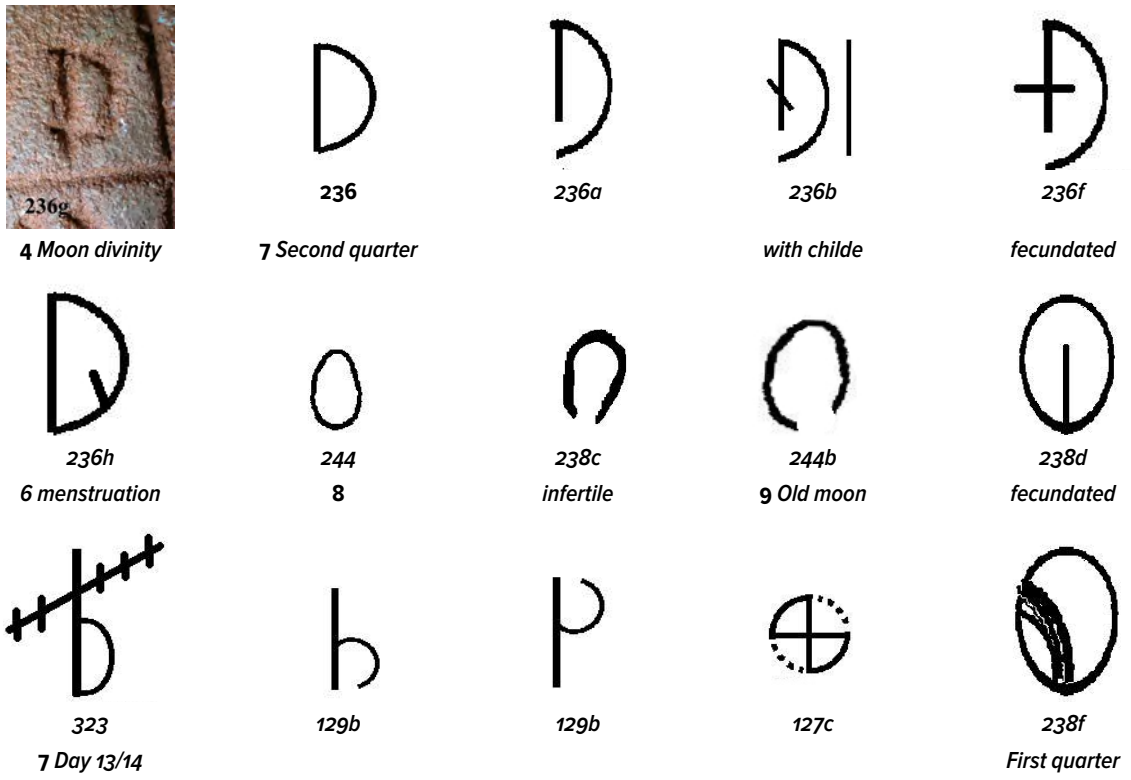


Fig. VIIC.13a. Moon and other signs for pregnancy.

[595] Winn S. 1981, p. 21.
[596] Teodor Silvia, Lazarovici Gh. 2006, p. 108, sign 4b with analogies in the codes 29b, 29, 132.
[597] Merlini M. 2010, September: *Religious calendar systems from the prehistoric South-eastern Europe, Hague AAE.*

There are many proofs that the moon was adored during the Neolithic age, being considered a divinity, often related to the life cycles, fertility and fecundity. The best example is found at Parța, where on the western wall of Sanctuary 2 the Sun, the Moon, the cup and the grinding stone are associated, and offerings were given to the sun and moon by grinding cereals. In the "block" of houses P18/43, monumental moon-shaped pieces are associated with the sun. The idol from Turdaș renders a feminine character with an aureole and rays symbolizing the Moon (**fig. VIIC.12**). Another example is a feminine statuette from Scânteia which has on the abdomen and right arm some signs and symbols suggesting the sacred house, the Sun with rays and the Moon (the signs and their location on the abdomen; the Moon again, the D-sign on the left arm, not accidentally located there).

Based on traditional data, the Moon has 4 phases and – counting the missing period – five cycles. In the quarter of the tablet, there are five lines suggesting the increasing moon of which the third is the biggest and goes downwards, almost joining the biggest Moon representation from the lower series (sign no. 6). This line is atilt so that the onlooker can make the connection. The next two signs are smaller, representing a decreasing moon.

The moon symbol is correlated to the Sun symbol (see sign 13b). It symbolizes the dependence upon the sun, the feminine principle as well as the idea of periodicity and renewal as the moon is the aster of the rhythm of life; by comparing it with the menstrual calendar it is the symbol of the biological rhythms. It is thought that the moon controls all the cosmic plans related to the law of cyclic evolution: water (primordial sea), rain (the water of life), vegetation (the cyclic renewal), fertility (the feminine cycle) and much more[598].

If we look at the medical calendar of the women's menstruation cycle (Standard Days Method) (**fig. VIIC.14.2**) largely commented by Marco Merlini based on a piece at Dikili Tash[599], it can be observed that the fertile period starts after the menstruation plus the first 5 days, this corresponding to the sign. The first 5 lines from the upper part of sign 4 might mark the first infertile period. Counting the lower part of lines we get to day 10, the first part of the fertile period; marked by the line descending to the biggest moon (sign n. 5).

1 *3*

Fig. VIIC.14: 1) Turdaș statuette; 3) Scânteia. The Great Mother having on the abdomen the Sun and the Moon.

[598] Chevalier J., Gheebrant A. 1995, s.v. Moon; Golan A. 2003, p. 143 ff.

[599] Merlini M. September 2010: sees here other pieces with signs related with moon, and moon and feminine calendar.

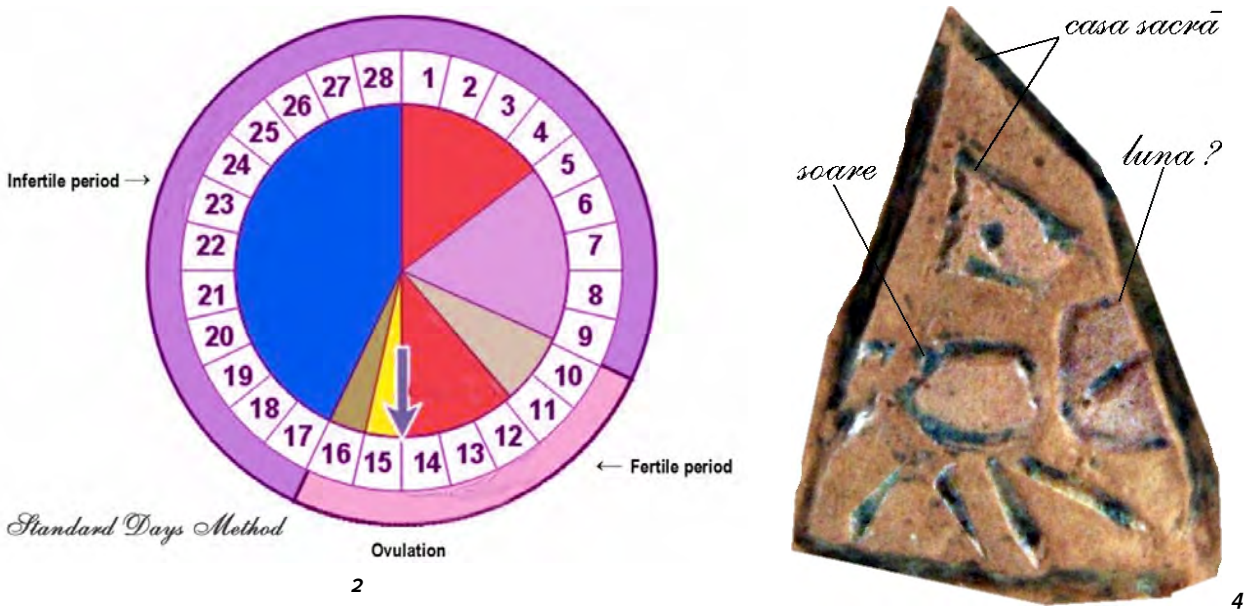


Fig. VIIC.14. 2) The feminine cycle after DSA; 4) The Great Mother having on the abdomen the Sun and the Moon.

Sign no. 5, the biggest, is rendered through the highest number of points. The three days of ovulation follow, the other moon signs being smaller and smaller, marking the infertile period. There is an amount of knowledge incorporated and rendered in the signs and symbols, the full moon being the crucial point of the moon cycle; as it is considered the releaser of the ovulation, that is, of the reproduction process. The full moon is considered as the most favorable for the human and agrarian fertility. Other presented pieces, having similar representations, can be used for the same purpose.

M. Merlini considers that the examples presented above suggest a synchronization of the human reproductive cycle with that of the moon. The most important element transmitted is the full moon, which in agrarian societies is even today considered to be playing an important role in the reproduction process[600].

Fig. VIIC.15. Lozna messages towards divinities (after Silvia Teodor, Gh. Lazarovici 2006).

Surely the initiated of that time noticed and preserved such knowledge, because it was important for the community and the continuation of the life cycle. The initiated knew that the feminine cycle was closely connected to the moon and the moon cycles. Most probably they saw the significant effects of the moon periodicity over human physiology and weather, which were key motivations for such calculations that over time led to the synchronization of the human reproductive cycle with the moon cycle. For women it was worth staying in relation with the firm regular monthly rhythm of the moon because in this way they could better know the infertile and especially the fertile periods. In fact, physician Romeo Dumitrescu analyzed the two cult hoards at Poduri and Isaiia relating the arrangement of the series of 3×7 idols with and without throne and feminine to the moon periods of increasing ovulation and fertility[601]. The existence of the same rules in two sites situated over 150 km apart, proves the existence of some common knowledge and mythologies, common symbols, maybe of a common religious liturgy.

[600] Merlini M. September 2010.
[601] Dumitrescu R. 2007; 2008, especially fig. 7/3, p. 50.

Signs 9 and 10. The bow and arrow

In the left lower quarter of the tablet there are two signs. One is a bow (Makkay 1990, code 3a, sign 9: Winn 1981, code 177; 2004–2009, DS 164; Merlini 2009d DS) and an arrow with a double head (sign 10 at Winn, code 111). The bow has several meanings (a means of transmitting a message to the divinity)[602]. On some Dacian tagmas the bow appears as well[603].

Some aspects were analyzed in a study concerning the signs and symbols found on a Cucuteni pot at Lozna[604], a proper allegory regarding the messages towards divinity. According to A. Leroi-Gourhan, in the Paleolithic art the arrow symbolizes the male gender[605]. It is to be mentioned that later on, the Thracians (Gets) shot arrows towards the sky when the weather was bad[606] in this way addressing a message to the divinity. The arrow head (sign no. 10 – in our code) is given by J. Makkay a different code (1990, code 3b). At Lozna there is another sign (code 129b, fig. VIIC.12 and code 323) connected with the days of maximum possibility for fecundation and conception.

In our database there are several manners of rendering the bow, the arrow, the double head arrow and others, especially as a masculine symbol.

Fig. VIIC.16. Tablet 2, signs 9–10, the bow and arrow.

602 At Lozna in our opinion: Teodor Silvia, Lazarovici Gh. 2006, sign 1.

603 Tagma signs = signs discovered on bottom of Dacian pots; Beldiman C. 1990.

604 Teodor Silvia, Lazarovici Gh. 2006.

605 Apud *Bildatlas* 1991, p. 35, fig. S2i.

606 Herodot (Histories, XCIV) *"... When it thunders and lightens Thracians about which speak here (Gets) thrown with bows towards up, to the sky, threatening the god, they do not recognize other gods excepting their own god"* (Gebeleisis, our note).

The signs on the Tărtăria tablets (especially with codes 113f1, 113f2, 24, 1b5) have the most complex resemblances on different category of objects. The pattern is rendered on a pot bottom in Gradešnica group, at Brenica, associated with two dots resembling two eyes[607].

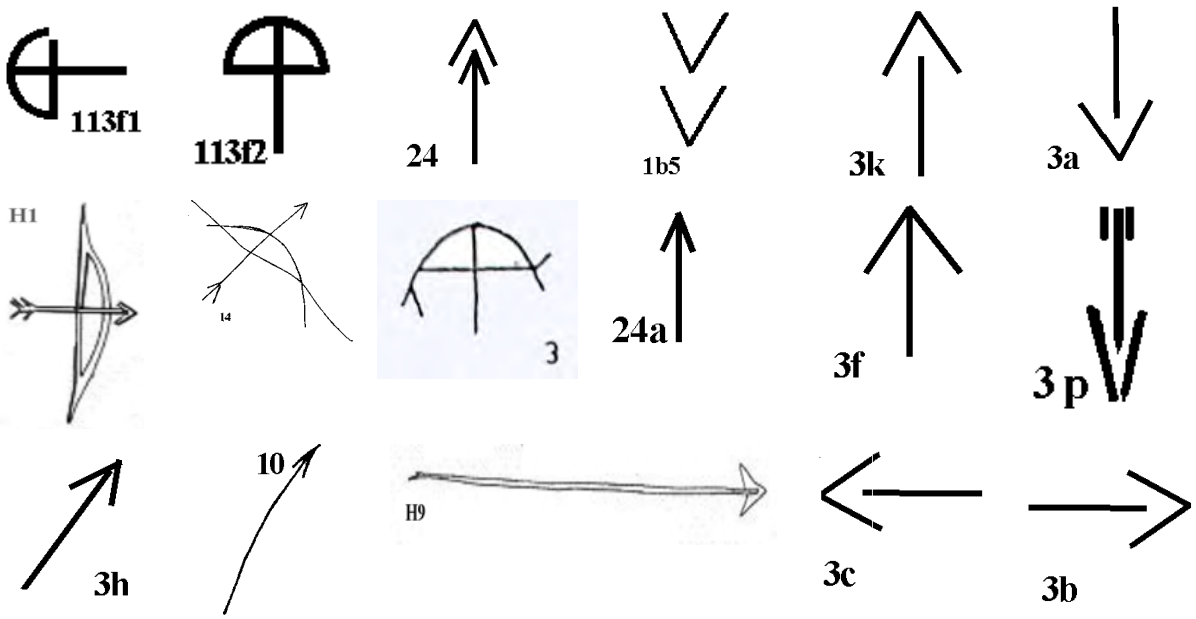


Fig. VIIC.17. Tables with signs such as the bow, the arrow and the arrow head.

The bow styled as an umbrella is also rendered on the megalithic stones on the Teasc Mountain, where a sanctuary is located in the natural environment[608]. From the way the bow is rendered – from the right towards the left – it is like a divine command (the right side is sacred ... the right go to the right side of God ... in the Christian faith), Towards the left square we see that in the lower part, that is, on Earth, there are noted the rituals that must be dedicated to the gods on the two altars (signs 12 and 13a, 13b).

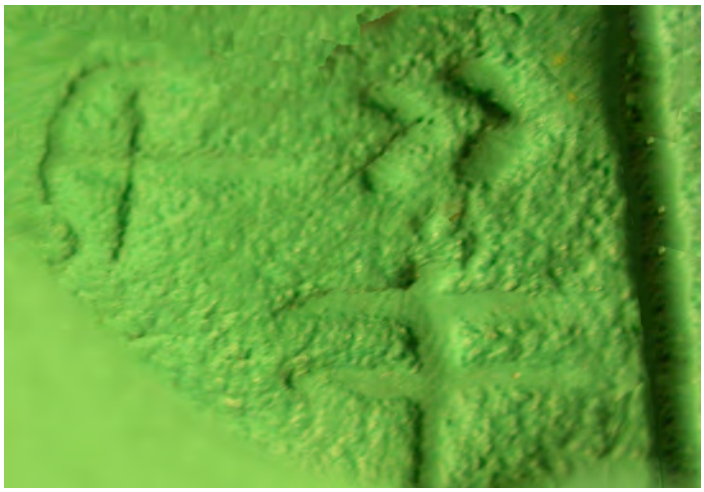


Fig. VIIC.18a. Tărtăria, tablet 2, sign 11.

We can surely bring much more analogies for the signs above but we will focus here only on those identical with the signs on the tablet. For the bow and arrows there are analogies with a stone block with signs recognized as "runes" at Herla (fig. VIIC.9, 17 H9)[609].

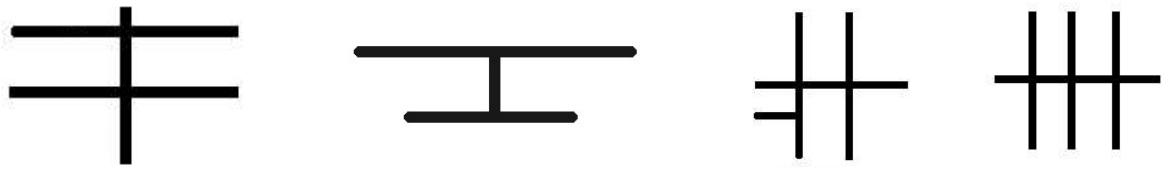
The arrow with a double head (code 24) is noticed on a spindle whorl at Turdaș[610]. Only the double head (at Tărtăria the arrow body is not joint with the double head code 1b5) is mentioned at S. Winn (code 177), at M. Merlini (codes DS 001.1, DS 002.1, DS 004.1)[611]. Code 3k also has analogies on the Teasc Mountain[612].

Code 3a appears on a spindle whorl at Turdaș[613], on a pot bottom in the Serbian province Srem, the Vinča culture[614], on a disc at Ghirbom in the Petrești culture and others[615].

607 Todorova Henrieta 1986, p. 209, fig. 112.
608 Lazarovici Gh. et al. 2011, fig. 26, Teasc Mountain – Stone no. 9.
609 Ursulescu N. 1991–1992.
610 Roska M. 1941, pl. 128/10.
611 Winn S. 1981 with analogies at Turdaș, Vinča, Banjica a.s.o.; Merlini M. 2009d, p. 581–582.
612 Kovács Șt. 1914; Stone n. V, Lazarovici Gh. et al. 2011, fig. 21, face 3 down.
613 Roska M. 1941, pl. 128/13.
614 Makkay J. 1990, pl. 42/32.3; Trbuhović V., Vailjević M. 1983, pl. VIII.
615 Aldea I. Al. 1974, p. 40–47, fig. 1–4; Gimbutas Marija 1976, p. 3; Makkay J. 1990, pl. 19/4a–b.

Sign 11. The lights

For this sign there are analogies in codes established by: J. Makkay (1990), 3c; S. Winn (1981), 41: M. Merlini (2009d) DS 020.0, DS 020.1a, DS 020.1b, with analogies at Vinča, Turdaș, Jela, Medvenjak, Parța[616] a.s.o.



126f 126h 128c 126d

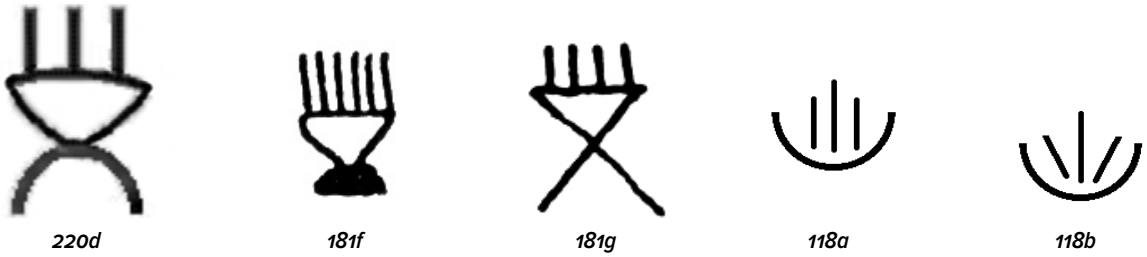
Fig. VIIC.18b. Sign 11 and its analogies.

Sign 12. The Altar of Burnt Offering

It represents an altar model on which offerings are deposited and burnt.

a1 *a2*

Fig. VIIC.19: a) Tărtăria, tablet 2, sign 12 (code 220); b) analogies ▼.



220d 181f 181g 118a 118b

[616] Winn S. 1981, p. 117, code 41; Merlini M. 2009d, p. 585.

Together with sign 13 it is located on the left lower square being related to the rituals in the earthly world. The sign has a semicircular base and from the triangular part three threads of smoke rise. Such altars, small table-altars, fireplaces, benches for burning offerings are almost always present in the sanctuaries of the Neolithic and the Copper Age. In both sanctuaries at Parța *fumigatio* practices were noticed. On the sides of the monumental feminine statuette in Sanctuary 2, on the right, wavy stripes can be seen ascending from the trays of the plinth. Several cassettes, table-altars, big or smaller portable fireplaces used for burning the offerings were discovered there.

The ashes resulted in the trays were deposited in pits or on some podiums especially arranged near the above-mentioned fireplaces or in some pits outside the site[617]. The cup shape allows us to suppose that in them were burnt flammable liquids that maintained fire and perhaps emanated pleasant or psychotropic smells or that they allowed the smoking of hallucinogen substances[618].

In conclusion, we believe that such *fumigatio* rituals are rendered by sign 12. At J. Makkay there are several codes related to this aspect, afterwards resumed by S. Winn and M. Merlini[619]. We cannot separate the *fumigatio* from the habit of burning aromatic plants, and fats as an offering given to gods or smoking hallucinogen plants (i.e. the peace pipe)[620].

This sign has the code 181 at S. Winn (1981). M. Merlini does not include it among the signs of the Danube script, but relates it to the possible rendering of some constellations together with the Mostonga shell[621]. Analogies for these signs have been presented by all authors interested in them. S. Winn (1981 code 181) presents analogies at Turdaș, Vinča, Jablanica and Predionica[622] . For our code 194 there are analogies in the *Stichbandkeramik* [623], even though they are of a different type than in the Danube script[624]. For code 220 there are some close analogies at Vršac – At[625].

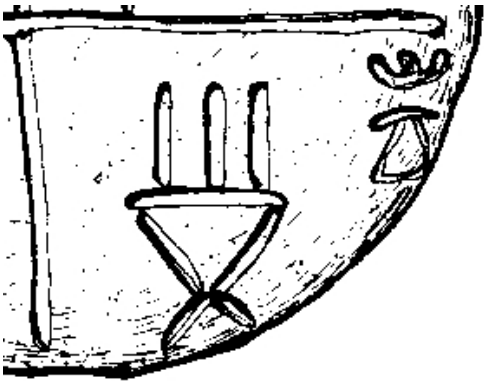


Fig. VIIC.20. Drawing made by N. Vlassa.

Sign 13. Possibly the heavenly altar

This sign, located in the same area with the cup for burning liquids, right on the margin of the tablet was often commented.

The enlarged image and the examination of the wax impression reveal a different image from the one published before. We cannot say whether it is one or two images: 327c or 327d as sign 2.13b. Unlike in N. Vlassa's drawings (**fig. VIIC.20**), taken on by J. Makkay (1990, code 4b, 4c), S. Winn (code 186), we included it among the representations of humans (code Om 33=267)[626].

In our drawing it was in between a human figure and an altar, influenced by the altar located on the same side. The enlarged images, clear as they are, do not provide an answer. The only distinction when compared with the old drawings is that it seems that there are two heads instead of one, clearly visible in the photo and the wax copy (**fig. VIIC.21**).

Now we can see this representation as a figure having something around the waist. Its arms are raised. It seems to hold a small sphere in its left hand, visible on both images. The fact that its raised arms form a semicircle made us think of a representation of the heavenly arch. The two heads might represent the Sun and the Moon. We have only scarcely discussed the symbol of the Sun on this tablet, but its orifice situates it in the central part of the piece from where the profane (left) and the sacred (right) sides started.

617 Chapmann J. 1981, p. 74–75; Paul I. 1992, p. 103–104; Lazarovici Gh. et al. 2001, I.1, p. 232, 240, 242, 244, 247, 294, 281 and bibliography; Lazarovici Gh., Lazarovici Cornelia-Magda 2009, p. 258; Gligor M. 2007.1, p. 204–206; 2007.2, pl. CCX.5.

618 Băcueț-Crișan Sanda 2009, p. 63, n. 20–21 and bibliography.

619 Makkay J. 1969, 8.1–11; 1990, cod. 4a; Winn S. 1981, code 180, 181, 187 apud Merlini M. 2009d, p. 110, 459, DS 029.5; DS 029.6: many of such signs he did not analyzed considering them as symbols.

620 Makkay J. 1969, 8.1–11; 1990, code 4a; Winn S. 1981, code 180, 181, 187 apud Merlini M. 2009d, p. 110, 459, DS 029.5; DS 029.6: many of such signs he did not analyzed considering them as symbols.

621 Merlini M. 2009a, p. 82, fig. 5.

622 Winn S. 1981, p. 190.

623 Kaufmann D. 1976, 15: apud Makkay J. 1990, pl. 24/a.

624 Hoffmann E. 1963, pl. 35, 41/12, 42/5, 8, 43/13, 45/4.

625 Jovanović B. 1981, p. 134; Makkay J. 1990, pl. 35/I.41.

626 Lazarovici Gh. 2004; Merlini M. 2009d, p. 149.

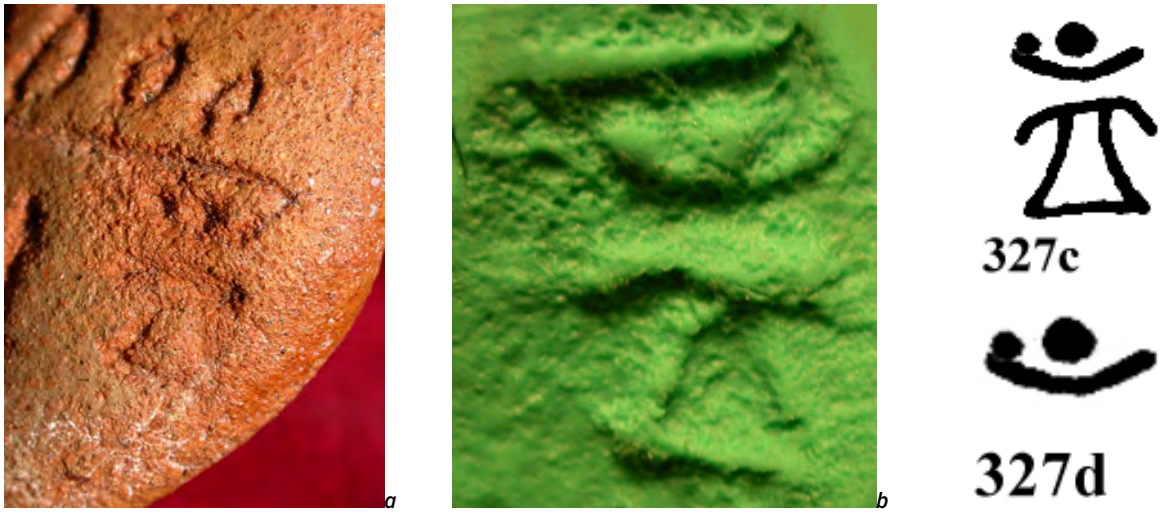


Fig. VIIC.21. Tablet 2, sign 13 (code 327c); b) wax copy, code 327d.

This time the Moon being in the upper part, on the right side of the Sun, it is also regarded as a divinity. The figure might represent a divinity which is both in the Sky (the head, the arms) and on Earth (triangle base, maybe the legs). As it is located on the margin, hidden away from direct sight, we believe the sign symbolizes the destination of the burnt offerings, i.e. the Sun and the Moon. In fact, at Parța, the western wall group (consisting in the Sun, the Moon, the cup and the grinding stone) was related to the sacred grinding[627] and depositing of the cereal offerings as a thank giving to the Sun and the Moon, divinities related to the fertility of the plants on Earth.

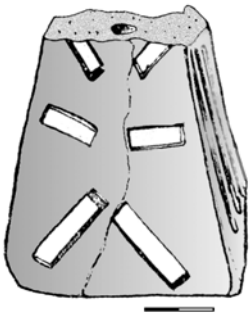


Fig. VIIC.22. 1) Altars: Zăuan, according to Gh. Lazarovici 1988.

2) Sitagroi, according to Marija Gimbutas et al. 1989.

3) Hiraklion-Kerphi altar stand according to BSA[628].

4) Rușești Noi, according to C.-M. Lazarovici et al. 2009.

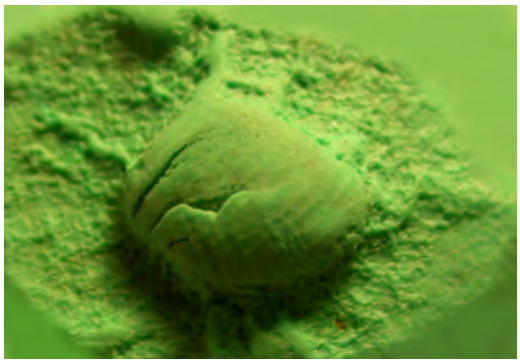


Fig. VIIC.23. Sun hole on tablet 3.

J. Makkay analyzed in detail signs 13 and 13a considering, in the same way we did, that they were altars. When we made the codes we missed the analogies with the Mesopotamian altars on seals, we just mentioned the idea of altar; we believe that J. Makkay's analogies[629], though quite old, sustain this idea of an altar. Such rectangular shaped altars with sketchy human figures are: at Otzaki Magula (Greece), at Zăuan as early as the end of the Early Neolithic, at the level of Vinča A phase[630], thus being contemporary with the Tărtăria tablets, or later during the Copper Age at Sitagroi III[631], the moment of the appearance of the seals.

627 Makkay J. 1978, 13–36; Ljamić-Valović N. 1982, p. 429–431; Lazarovici Gh., Dragomir I. 1993, p. 12, no. 46; Lazarovici Gh. et al. 2001, p. 281–283, 292, fig. 180–181–183; Lazarovici Gh. 2002; 2003; 2003b; Lazarovici Gh., Lazarovici Cornelia-Magda 2006, p. 115, 118.

628 BSA = *British School of Archaeology*

629 Makkay J. 1990, fig. 12/17–20.

630 Lazarovici Gh. 1988, fig. 21.

631 Ewans R. K. 1986, p. 420, fig. 12.7 = pl. LXXIV.4.

Tablet 3 (fig. VIIC.24–33)

Coupled with tablet 2, it was also worn during initiation rituals. The tablet (inventory P. 410; dimensions: 62×30×9 mm) is made of a semi-fine brick-yellowish paste; the mixture contains medium sized grains of sand with a little clay and maybe quick lime; the tablet was weakly fired, the colour indicating an oxidized during firing[632]. It has a round orifice which we compare to the role of the Sun. The front part of the tablet is divided by two big lines into three main fields. The central and the right fields are subdivided by shorter lines (marked 0, 01, 02, and 03) into 7 fields on the face and another one on the edge, the latter being oriented towards the sky when the tablet was worn around the neck.

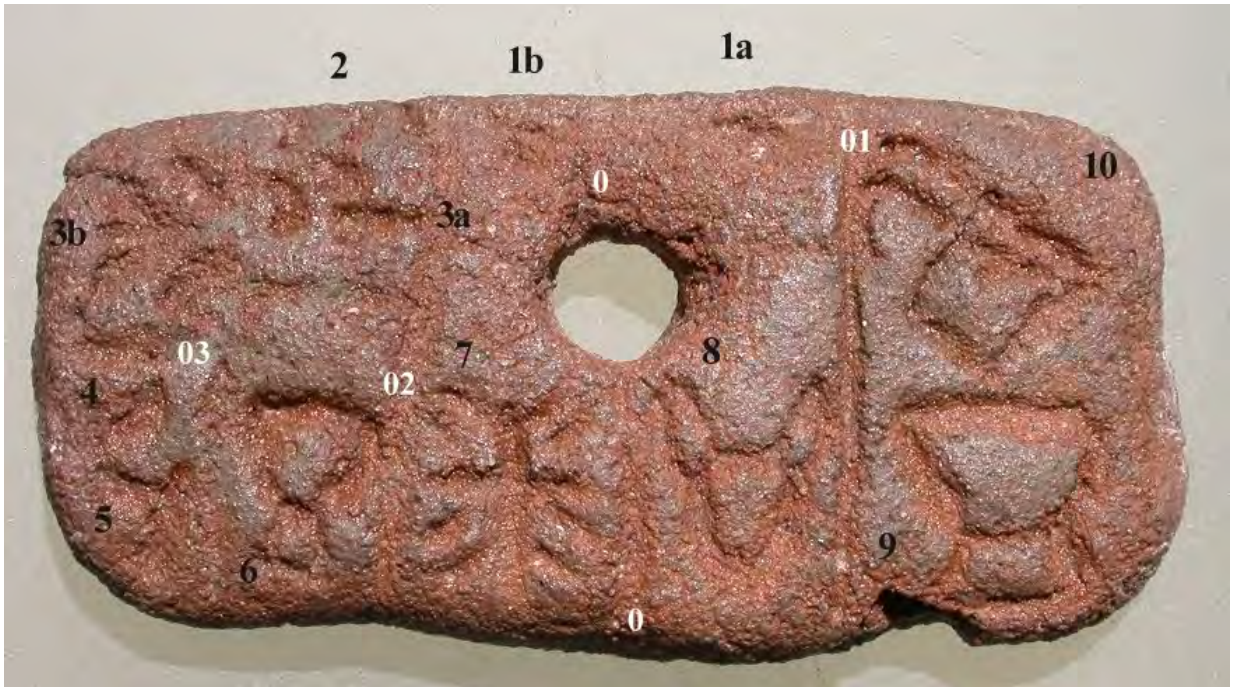
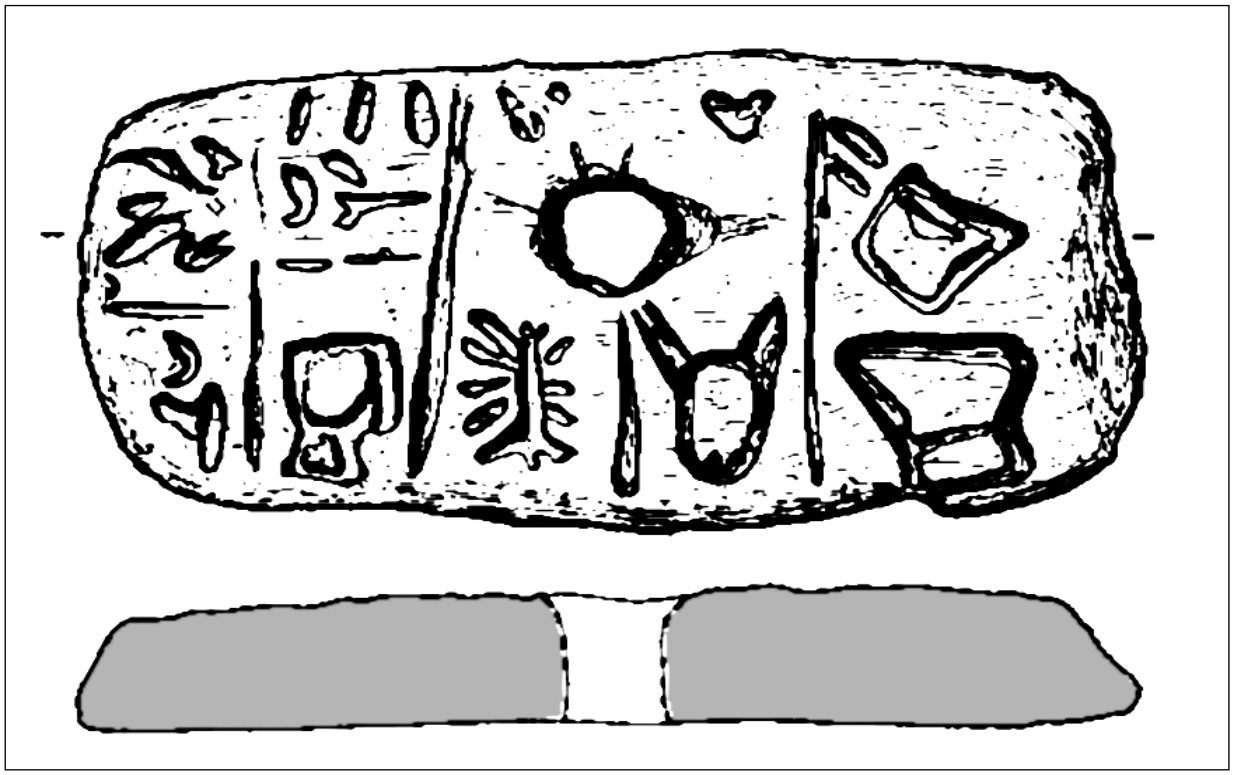


Fig. VIIC. 24: a) ▲ Tablet 3; b) N. Vlassa's drawing ▼.



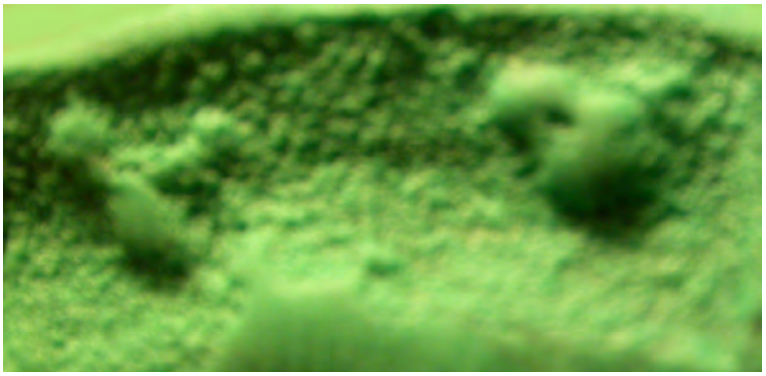
[632] Vlassa N. 1962; 1964, p. 490, fig. 7/3=8/3; ***Der Turmbau zu Babel*, 2003, the card made by Gh. Lazarovici; ****The Danube Script* 2009, catalogue 3 a.s.o.

Sign 0. The Sun (fig. VIIC.24.0)

As we have mentioned above, we believe that the hole on tablet 3 represents the Sun and the lines around it form 7 fields. Apparently (as we are not sure if is not a defect as a consequence of the acid bath) from the Sun starts a vertical line to the left, towards the cup (sign 10) and another one goes down, perpendicular on it, towards the bucrania. The line was meant to connect, so that after the animal decapitation blood offerings could be brought.

The central line (mark 0) that reaches the "Sun" seems to part above the hole (easier visible in N. Vlassa's drawing); this is hard to establish because of the acid bath effects, which widened the lines in most cases – maybe a white substance used to be in these incisions, as it happened with the incisions that were meant to be highlighted.

Fig. VIIC. 25. Tablet 3, sign 1b and 3.2, signs 1a and 1b, bucrania and moon. a–b▲, c▼.



Under the Sun there is the bucrania separated by line 0 from a sacred sign. Line 01 divides the central area into the right and left sides. On the left side there are the cup and the pot used for pouring the sacred liquid.

Line 02 separates the symbols on the right side marked by *the tree of life, the tree of the world*[633], a cup and other two signs. Line 03 separates the tree of life from the cup and other three signs (marked as 4–6).

Signs 1a and 1b. The Zenith – Horizon

Located above the orifice – the Sun, the two signs were drawn by N. Vlassa as two "V"s, the one on the leftclearer, the one on the right slightly deeper split. J. Makkay (1990) gives them sign code 4a.

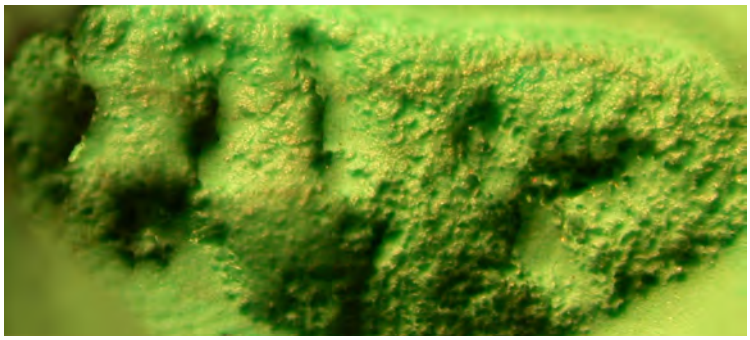
Actually, on the wax impression (fig. VIIC.25.3.2) we can better observe the details, as the signs were probably made with the same bone tool with a slightly blunt tip. It is difficult to establish what the two signs might have meant. Being above the "Sun", they could represent some stars. These "V" signs have been accepted by S. Winn (code 95). J. Makkay gives them another code and meaning (code 3a and 4a), but he did not comment them.

If we look attentively at the wax impression, they might suggest two small bucranias or sky constellations. This idea is related to the fact that in the next signs the Moon is rendered three times, and because the signs are of quite similar size we assume they do not represent phases of the moon but three moon cycles starting with the first quarter.

[633] Eliade M. 1981, p. 42 the world tree symbol of Univers, p. 174 ff. the life tree.

Signs 2. The Moon as time (fig. VIIC.26)

Signs 2 might represent the Moon, repeated 3 times according to N. Vlassa (fig. VIIC.24b) and J. Makkay (1990, code 2a). We have added here three images, rendering the moons: one enlarged image of the tablet, the wax copy and a digital image where the depth and the shadows were reduced (fig. VIIC.26c). From these it is not as clear as in the drawing if they are representations of the moon or other signs whose meaning we do not understand. So, until new interpretations, we accept the idea of "Moon" as it is the dominant element in the tablets.



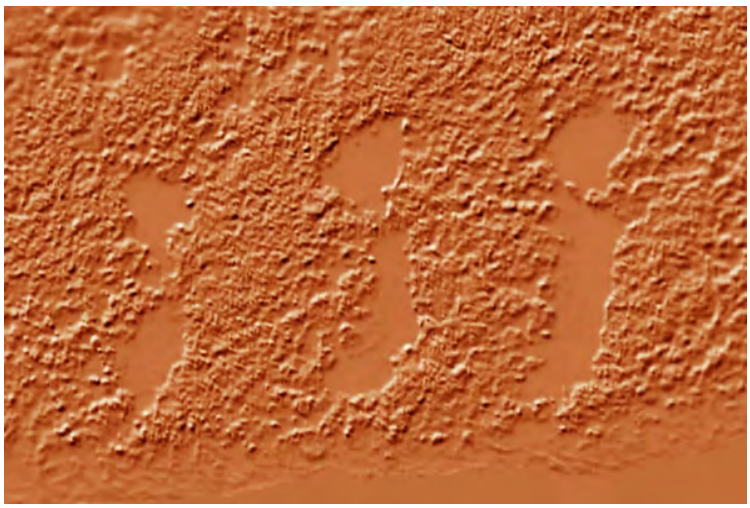


Fig. VIIC.26. Tablet 3.2, a▲, b–c▼.

The Moon is the symbol of fertility and fecundity, of vegetation renewal, essential attributes related to the "fertile power of life incarnated in vegetal and animal fecundation divinities melted in the Great Mother cult" [634].

Sign 3 and 3a. The Cosmic Tree and the cereals on earth (fig. VIIC.27–28)

Sign 3 was received as a tree. We do not have a wax copy about it, but the details confirm the approximation of the drawing. We mention this because we do not exclude the presence of actually two plants separated by a vertical line (in the photo below it looks horizontal). Anyway, in both cases our intention was to present the plant as ***the Tree of life,*** as our forerunners did. At J. Makkay the drawing is sketchier than N. Vlassa's (the latter being closer to the original). We consider that there are two plants (a bigger one above, a smaller one below) because the lines were meant to separate them. The reason might have been to relate the three "Moons" to the smaller plant. Possibly that the three moons marked three moon cycles, and in this case we had spring time and the big plant could suggest summer time, harvesting time[635]. Or maybe they render some medicinal plants that must be collected at a specific moment. There certainly are more questions than answers; we are just trying to better understand the association of different signs.

The role of ***the Tree of life is to unify the three worlds***: the roots in the Underworld, the body on Earth and the top in the Sky. Therefore the signs might suggest two vegetal cycles. The ones with few leaves (code 36 and 36a) might represent wheat as it often appears on seals[636].

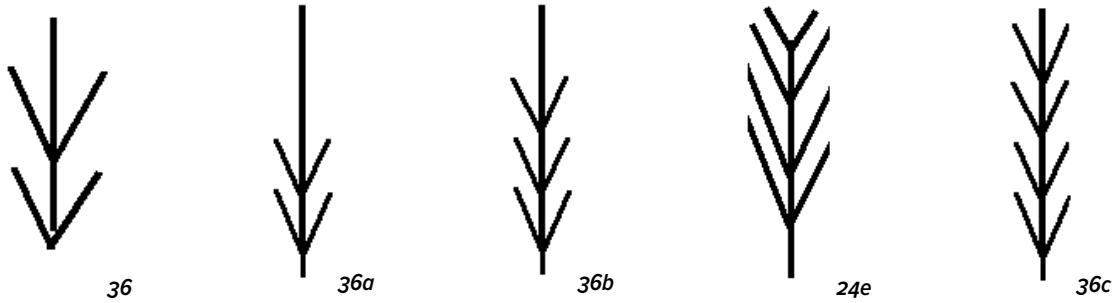
634 Eliade M. 1981, p. 42–43; Chevalier J., Gheebrant A. 1985, p. 248 s.v. Moon; Golan A. 2003, fig. 127–129.

635 Winn S. 2004–2008, p. 54–55 launch hypothesis of a possible counting system at Turdaș: DS 87, 82, 85, 91, 93, 95, 97, 88, 86, 92, 94, 96, 98, 100, 101; or for measuring time DS 110–115.

636 At Babylon: Golan A. 2003, p. 157, fig. 155.

a b c

Fig. VIIC.27. Tablet 3.2: a) details; b) N. Vlassa's drawing; c) wax impression.



36 36a 36b 24e 36c

Fig. VIIC.28. Types of plants and their codes in our database.

Sometimes the plant has a human figure (code Om 15, 278), other times it seems open to the sky to receive the rain (code 24e, ATU 111). In the drawing the small plant looks like an association of the "Y" and "V" , only they are associated with an additional sign (fig. VIIC.28).

Signs 4 and 5

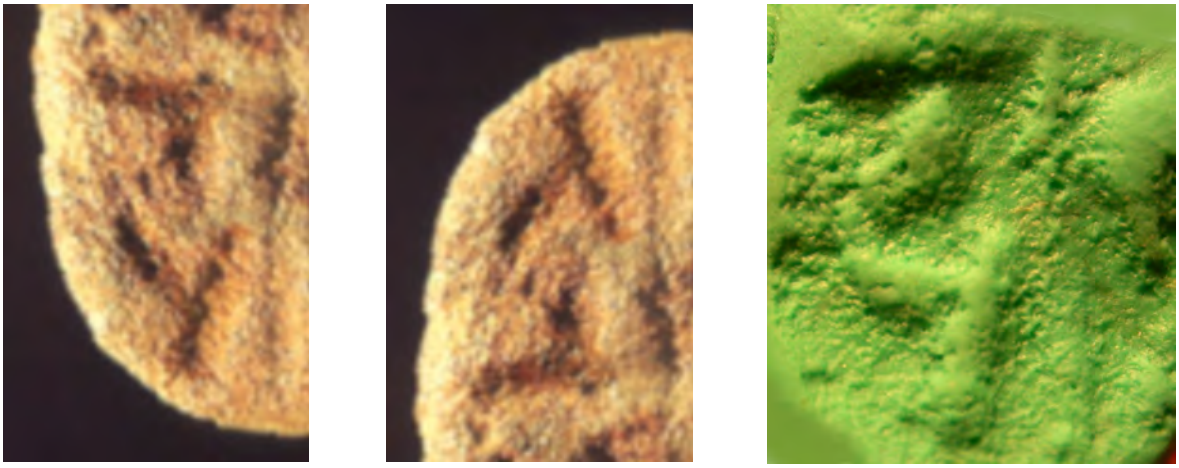
These signs are also located on the right side and they look like as a "V" (sign 4) and as a "Y" (sign 5), both being very rounded maybe because of the acid treatment.

In some places above it is similar with a leaf but even there it is above a "Y". The wax copy shows only the "Y" and part of the "V".

The "V" inclined to the left, like the arrow, is sometimes assimilated to the arrow head. We believe that the arrow head was meant to focus the attention towards this sign. Such signs have been considered as root signs[637]. Sometimes they were regarded as the base of some general codes[638]. In the statistics of 2004 (at that moment the loading of the database was only fortuitous, without data from J. Makkay and S. Winn), the "V" variants represented about 28% of the signs used on spindle whorls and round weights, 5% on tablets, 8% on the idols registered in the database. Sign Y (our code 49a) is rendered several times; we do not exactly know its correct position, as it has different inclinations and shapes with different meanings influenced by the angle of view, the association or combinations not only for signs but for symbols too.

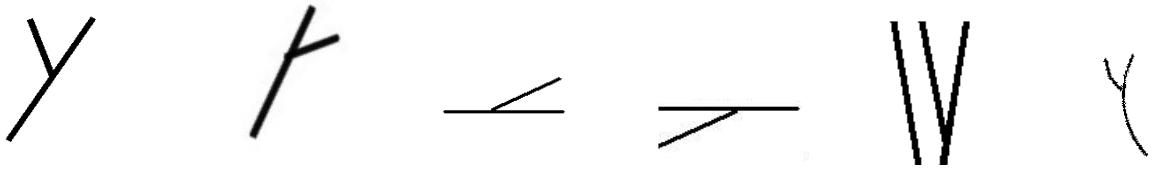
[637] Merlini M. 2009c, p. 27, no. 2, fig. 8.

[638] Winn S. 1981, codes 95–104; 2004–2008, DS 1-DS 15 a.s.o.; Merlini M. 2009d, DS 001 – DS 004 with over 60 variants and withought ligatures and combinations; Lazarovici Gh. 2004–2008: we have to excuse, while editor did not let the codes on the drawings associated with images. They have been partially published in others: Lazarovici Gh. 2003a; 2004; reproduced by Merlini M. in his study in 2008 (p. 135–157) when we had 3200 registrations in database, today we have almost 4000 (they are not correlated with the ones analyzed by M. Merlini, or other specialists, with smaller catalogues, such as: J. Makkay, J. Todorović, Š. Jovanovici, S. Winn, H. Haarmann, M. Merlini a.s.o.).



a *b* *c*

Fig. VIIC.29: a) Signs 4–5; b) vertical flip; c) wax impression.



49a *284e* *49f* *49j* *246c1* *258c*

Fig. VIIC.30. Variants and codes for "Y".

Let us take the example of the signs in fig. VIIC.29 signs 4 – 5, b, which are a vertical flip, in fact the way it is seen by the owner when he/ she wears it and looks at it. From 49a, the code becomes 49b. It is important to whom it is addressed, whether it is for "reading" or for "rememorizing". But when the signs are rendered on the bottom of pots, they are also very difficult to be defined. Their combinations also have several meanings[639].

Sometimes the "Y" sign appears alone or in different combinations through ligatures at J. Makkay (1969, code 22b, 23d, 14/65), S. Winn (1981 code 2, with ligatures, code 38 Jel 47, cod 43 Vin 152, cod 49 Jel 58) and at M. Merlini (2009d, code DS 007.0, DS 007.1, DS 007.3, DS 007.5). In our database (**fig. VIIC.30**) we have over 30 registrations with sign code 49a: 5 times on tablets, 4 times on the bottom of pots, 4 times on megalithic stones and others, but again we reiterate the idea that the loading of this database was fortuitous, and at this stage, the number or statistics are only significant as a guideline .

Fig. VIIC.31. The cup.

***Sign 6. The cup* (fig. VIIC.31)**

Located on the next field, separated by a vertical line, sign 6 is a cup. Because on the right side of the tablet there are only vegetal symbols, we believe that the role of the cup was related to sacred, heavenly water that has three prevailing themes: the origin of life (the primordial sea and chaos related to basic genesis for most myths, then the earth varieties such as seas, rivers, lakes, springs; the heavenly water such as rain, dew, snow, clouds), a means of purification (baptism, washing) and regeneration centre. As a whole, the right side refers to rituals related to life and vegetation renewal, attributes of the Great Mother and her priestess.

[639] See Merlini M. 2009d, p. 135 ff.

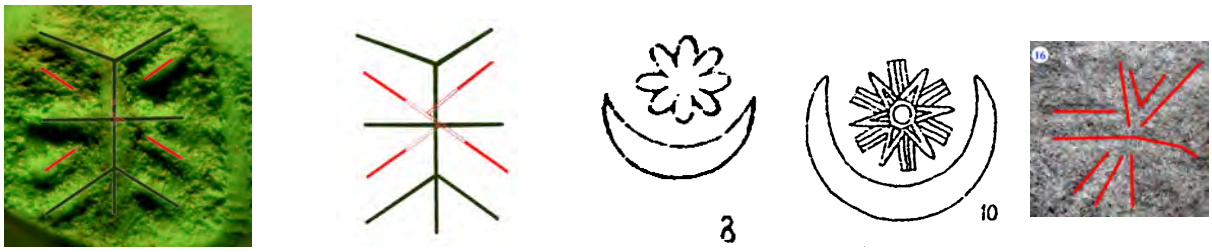
Sign 7. The Sun? (fig. VIIC.32–33)

This sign is unique. The drawings rendering this signs made by N. Vlassa, Emilia Masson, J. Makkay, S. Winn (code 30) are too stylized, without direct connection with its meaning. M. Merlini did not code this sign. All authors believe that it represents a tree (Winn 30)[640]. The tree idea for which some of the authors above give analogies is not very convincing, but we do not exclude it.

We believe that the sign is a cryptogram, like many other signs that the priestess, the owner of the tablets, receives or passes during initiation. The sign is located on the right side under the sun, so we believe it is related to the cryptogram of the Sun materialized on Earth.

a b

Fig. VIIC.32. Sign 7 on tablet 3 and the wax impression.



a b c d e

Fig. VIIC.33. a) Sign 7 and analogies from different areas ▶ Sumer 2200 BC. Dagestan recent time. Ditrău Stone n. 16.

Sign 8. The Bucrania (fig. VIIC.34)

Sign 8 represents a bucrania. The acid treatment widened the incisions here and some cracks affected the right horn. The bucrania is one of the main religious themes of the agrarian populations.

Those who studied the tablets coded it and presented several analogies: J. Makkay (code 20)[641], S. Winn (code 192)[642]. In our database there are few signs rendering a bucrania but there are several such representations and cultic burials of bull skulls we have analyzed on other occasions[643]. The bull skull or head and horns appear in sanctuaries, on monumental altars, on small altars and cult pots[644], as the bull is the symbol of fecundity and virility. We mentioned the horns as consecration when we presented the so-called "anchor". The bull sacrifice is an event of any agrarian society even today, so it is a matter of course that rituals related to bucrania are part of the "knowledge" engraved on the tablets.

The fact that the bull head is located on the left is directly related to the content in the next fields, as in the case of tablet 2.

640 Winn S. 1981, p. 144, code 30, no. 118–119.

641 Makkay J. 1969, code 4b, pl. 8; 1990, code 20, pl. 11 with analogies at Turdaș and in Mesopotamia.

642 Winn S. 1981, code 192, p. 144, tab. III.

643 Lazarovici Gh. et al. 2001, p. 271, 275–276, 278–279, 282, 288, 292; Rusu D. et al. in 1989–1993, p. 229–238, fig. 1a; Paul I. 1992, p. 115; Roska M. 1939, p. 26–27; Karagheorghis J. 1977, p. 38–39.

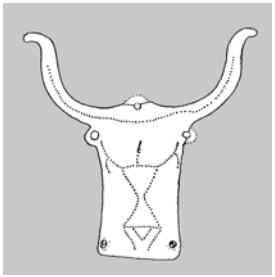
644 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 20, 21, 271 a.s.o.; 2007, p. 56, 60, 133, 158.

a

b

Fig. VIIC.34. a) Tărtăria, tablet 3, sign 8: b) detail, codes and analogies ▼.

c) Tărtăria.



d) Werteba chthonian sanctuary.

e) Căscioarele, Zeus and Europe.

f) Turdaș, bucrania.

Signs 9 and 10. Blood offering

The cup and the jug are two objects that, when related to one another and if we keep in mind the previous scene, suggest, the bucrania, the pouring of blood in the cup after the bull's sacrifice (suggested by the bucrania).

a

b

Fig. VIIC.35, Tărtăria, tablet 3, signs 9–10.

The tilt of the cup is evident, suggesting the pouring. In the Neolithic the blood and the sperm represent the sacral life, the placing of the blood in the cup, the reference being mainly made to the big cups from sanctuaries[645].

J. Makkay coupled the two pieces presenting analogies at Turdaș and in Mesopotamia[646]. We have to underline that the analogies with Mesopotamia and the Near East must not be understood in a chronological sense, but in a cultural functional one, because otherwise our knowledge regarding functionality will remain very poor. S. Winn (1981) give code 185 to the signs and later (2004–2009) code DS 68 for the two cups[647]. In Sanctuary 1, altar B at Parța there was a special altar where animals were sacrificed, in Sanctuary 2 on table–altar D1 there was a cup for blood[648]. Such rituals have been noticed in the Copper Age in the Aegean area at Vounas[649].

There are stylized animal representations, true allegories as old as the Early Neolithic, related to hunting, noticed by Bogdan Brukner[650], but until now we have not included them in our database as codes.

TABLETS AS MEMORIZING, PROTECTIVE AMULET AND KNOWLEDGE-INITIATION OBJECTS

The tablets from Tărtăria, as they have been presented in our long analysis, are part of the *Milady Tărtăria's* inventory and describe a certain liturgical ritual (from Gk. *leitourgia,* from *leitourgos* „one who performs a public ceremony or service, public servant"). Tablet 1, which contains only ideographic scenes, is intended to present the priestess' role, her mythological emblem. The other two tablets contain "knowledge" regarding rituals of the moon and feminine calendar, "secret" signs and the nature and rites of certain sacrifices, as well as rituals related to community events.

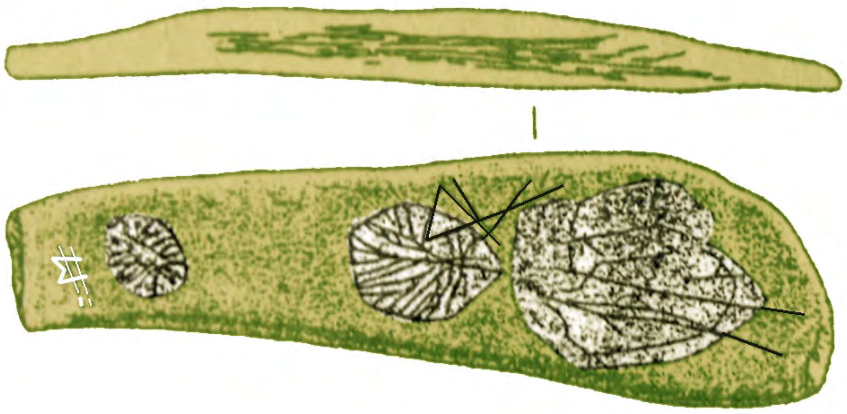


Fig. VIIC.36a. Cosăuți, Upper Paleolithic, engravings on bone after I. Borziac, Al. Zagaievski 1993.

Therefore, the pieces in the ritual pit belong to the priestess' inventory and the objects found there are emblems. The tablets are intended to preserve and teach the rituals that have to be performed.

Cosăuți (fig. VIIC.36a–37)

The cup was meant to keep the sacred liquid; the "anchor" – the consecration horns as the symbol of power; the bracelet as an emblem and a protective object; the idols are cultic inventory used in rituals; the small rectangular tablet has the mission to explain to the uninitiated the role of the priestess as the community "shepherd", guide in the sacred issues, and the servant of the cult; the two tablets were rarely worn around the neck, only on the occasion of initiations and festive moments, holidays, and rituals, and they memorized the meanings, periods, divinities to which they were addressed. The analogies cited by N. Vlassa and resumed by J. Makkay regarding the connections with the Near East are more important for their functional relation than for their chronological one. The shepherd that leads the goats to the woods, in the next instance shears them and in the third leads them to the pasture, represents the idea

645 Role of blood and sperm: Eliade M. 1981, p. 41–42; blood depositions in Sanctuaries: Parța Sanctuary 2: Lazarovici Gh. et al. 2001.
646 Makkay J. 1990, fig. 12/1–3.
647 Winn S. 1981, p. 144.
648 Lazarovici Gh. et al. 2001, I.1, fig. 176–178, 181, 191, 195.
649 Müller-Karpe H. 1974.III, Kat. 115, pl. 343/4–5; Karagheorghis J. 1977, p. 34, 41–42, fig. 13a; Lazarovici Cornelia-Magda 2004, fig. 47.
650 Brukner B. 2004–2009, p. 4, fig. 3.

of caring for the flock and for the wood marked by the trees[651]. We do not reiterate all the ideas presented above because they have already been commented upon extensively.

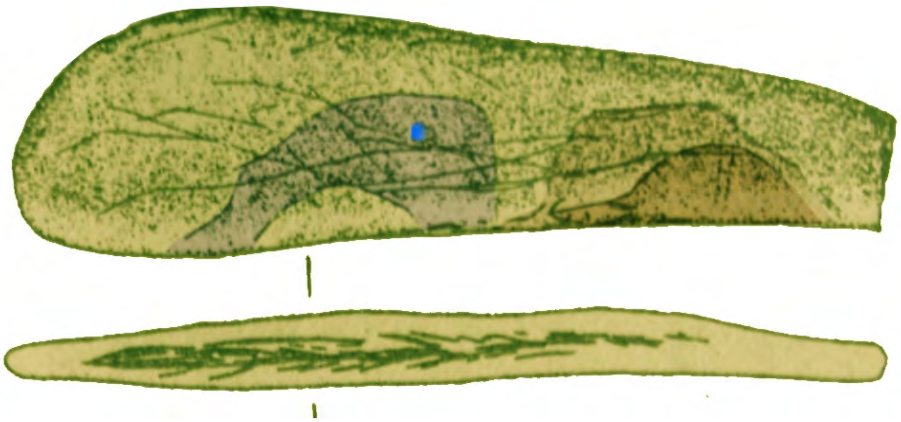


Fig. VIIC.36b. Cosăuți, reverse.

Therefore the tablets contain a script with a religious character. Over 90 % of the signs are present in the Danube script.

Besides the tablets, there are other different objects that have signs and symbols on them. In his PhD thesis, M. Merlini presented recent statistic data for a big lot of objects with signs, but he only analyzed the signs, or, in a religious script based on a cultic mythology, symbols have meanings known not only to the initiated but to the largest part of the social group. In our opinion, when only one sign appears on an object, even if the notion of script is not correct, it is still a symbol representing or evoking a notion.

Let us not forget the communication power of the symbol which may represent a sign, an object, an image etc., indirectly showing (conventionally or by virtue of an analogue correspondence) an object, a human being, a notion, an idea, a feature, a feeling etc. The great power of the symbol lies at the bottom of some signs in the script. At the beginnings of the script, the symbol was perhaps a logogram that did not evolve to a logographic script such as Katakána (the Japanese syllabic script with 46–47 signs), syllabic signs such as Sumer – the Akkad script (36–97% syllabic signs)[652] or with determinative elements (words or sentences).

We can give an example of a determinative element: the 4 correlated variants of the Moon on tablet 2, sign 3 as a base, and signs 5–8 as determinative elements, so in our language the codes have the following meanings: 5 = new moon, 6 = first quarter, 7 = second quarter, 8 = full moon. It is difficult to imagine what the actual words used then were.

Our intention is not to identify the type of script, forms, variants and evolution of the ***Danube script;*** we just want to analyze it in the light of a "religious script" where the signs and symbols are the expression of the mythology of a cult or types of cults, some related, other opposing. We believe now that there is a common mythology born during the millennia of evolution of the *Homo sapiens* (whose beginning on the Romanian territory is dated around 34.000 BC[653]) and this biologic ancestor came from the Near East civilizations, yet the opinions regarding migration and genesis might gradually change in time. As a symbol, the idea of woman–moon or all-fertile Great Mother, appears much earlier than agriculture or farmers, during the Upper Palaeolithic. For example, at Cosăuți, there are the oldest representations of signs (Cassiopeia to us); one sign renders the Sun or the Moon above a woman, as well as some signs in ligatures near its head, suggesting the X, V and other combinations[654].

On the back of the same bone piece there is another scene rendering a mammoth/elephant family. This manner of rendering the animals is quite surprising, very similar to the ones on the Isaiia tablets (see below). Also at Cosăuți some engravings made on stone discs remind of similar Neolithic signs in shapes

[651] Vlassa N. 1976, p. 42, fig. 9–10; Makkay J. 1990, fig. 15/1–4.

[652] Haarmann H. 2004–2008, p. 45 sqq., especially p. 55.

[653] Lazarovici Gh. et al. 2005a see bibliography too: http://www.cimec.ro/scripts/arh/cronica/loc.asp: index 3513, 3235 and bibliography; other reports with closed references 3234, 3769, 3983, 4081.

[654] Borziac I. 1991, p. 67, fig. 2/3; Borziac I., Zagaievski Al. 1993; Chrica C. V. 1996, p. 148, fig. 16/2; Chirica V. 2001 cover 1; Vartic A. 2008, fig. 3, 7a, 7b, 15.

of letters such as "V", "Z", "Y" and others related to sacred numerology[655]. Analyzing several Paleolithic objects with numbers, Andrei Vartic has established a primordial numerical matrix with numbers 3, 7. 9.

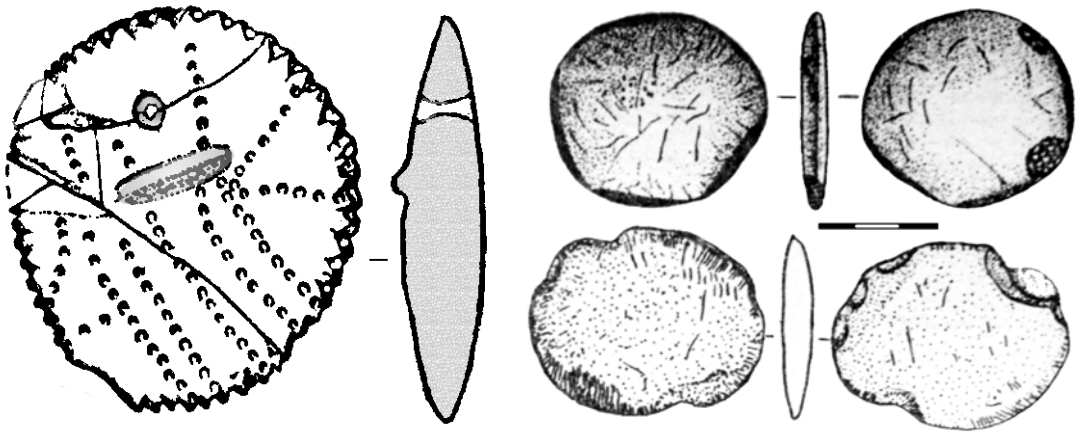
A pendant-tablet, with a hole for cord, has several engraved signs related with sacred numerology as well as others, similar with the ones from the "Danube script" (fig. VIIC.37a), such as signs "V", "Y", "T" or others.

Mitoc (fig. VIIC.38)

In one of the most important site of Upper Paleolithic, at Mitoc an amulet-pendant was discovered. The piece has also a perforation for cord, as well as signs on both faces[656]. It was used the same manner of processing, as in Cosăuți case, the signs being related with sacred numerology, but for others signs is difficult to find analogies. Combinations between numbers 2, 3 frequently appear on the Mitoc tablet.

There are many such tablets, in different periods and areas, from France until Anatolia, from Paleolithic time, in PPN or Neolithic and others periods[657].

On a piece from Byelorussia (fig. VIIC.39) there is another representation related to the Moon and the Sun; the piece contains a very complex allegory of the Sun, the Moon, and also sacred numerology. Here we find signs coded by S. Winn (2008: DS 95 – DS 101)[658]. Of the about 20 signs, heavenly bodies play an important role here. Variants of astral symbols such as the Sun and the Moon can be found, as well as signs such as "X", "Y", or cycles of 6, 7, 8, 10, 11 lines.



a b

Fig. VIIC.37. Cosăuți, Upper Paleolithic: a) tablet; b) engravings on stones after I. Borziac, Al. Zagaievski 1993.

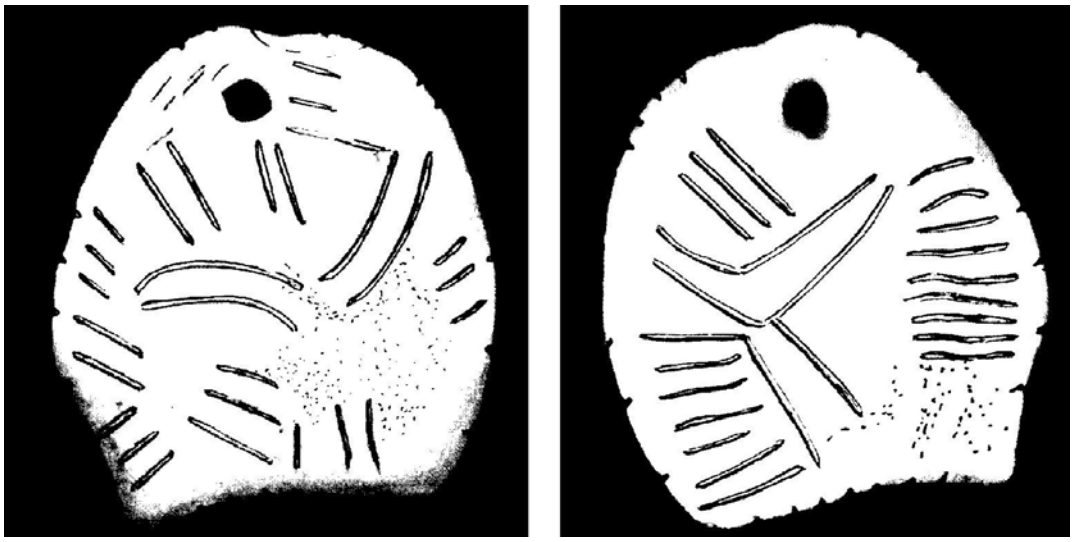


Fig. VIIC.38. Mitoc, tablet after V. Chirica.

655 Vartic A. 2008.

656 Chirica V. 1983; 2001, cover 1.

657 Vartic A. 2008, fig. 16–18; Merlini M. 2009d, p. 56–60 și bibl.

658 Winn S. 2004–2008, p. 54.

OTHER TABLETS, DISCS OR PENDANTS

As proved by radiocarbon data, the earliest clay tablets with signs and symbols in the Danube area are the ones from Tărtăria.

Glăvăneștii Vechi (fig. VIIC.40)

Contemporary with them are the tablets discovered at Glăvăneștii Vechi[659] and Perieni, belonging to another group of civilization (Polychromy), contemporary with Vinča A that, during its early stages, spreads towards the southern and eastern areas of Romania, as well as towards the neighboring areas in Bulgaria[660].

Unfortunately we have no images or correct drawings. There are some differences between the photos and the drawings, therefore we are cautious. As can be seen, the piece has signs on all sides, except the bottom and the part opposite to the long side, which was possibly engraved. We have tried a reconstruction of the signs enhancing the light from different angles, then redrawing the piece and obtaining a more complex image by completing the drawing. Light angles are evident on the three copies, but the fourth did not give any better results.

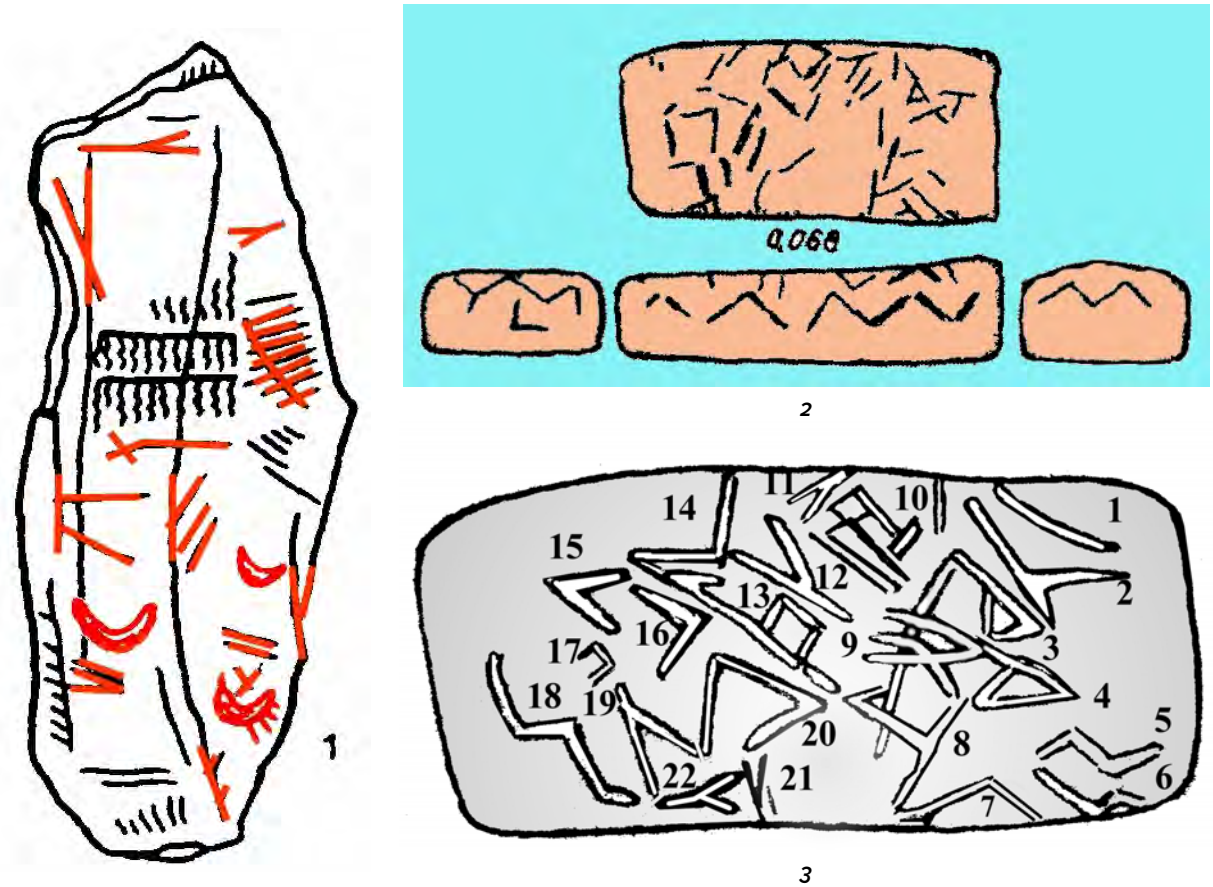


Fig. VIIC. 39. Byelorussia, after A. Golan 2003.

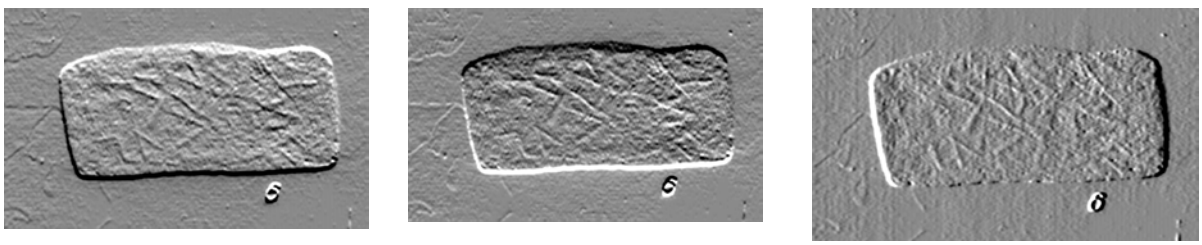


Fig. VIIC.40. Glăvăneștii Vechi tablet.

[659] Makkay J. 1990, fig. 18/7–8a; Ursulescu N. 1998, p. 103, fig. 27; Lazarovici Gh. 2003; Lazarovici Gh. et al. 2009, p. 95, fig. 1a.

[660] Nica M. 1976; 1977; 1984; 1991a; 2000 a.s.o.; Lazarovici Gh., Nica M. 1991; Lazarovici Gh. 1977; 1979; 1993; 1995; 1987–1988a a.s.o.; Luca S. A. 1998; 1999; 1999–2000; 2006; Luca S. A. et al. 2000a, a.s.o.; Mirea P. 2005.

There are differences between the signs on the piece (**fig. VIIC.40**) and those on the drawing (**fig. VIIC.40d**). Moreover, we believe that there are some lines that separate the signs into several groups. In this situation, we believe that only the direct study of the tablet, very good photos, wax copies (as the ones for Tărtăria) can ensure a correct interpretation.

Our coding was made according to the drawing not the photo. The signs used here are the most frequent on cult pieces (tablets, altars, spindle whorls, pots, and idols). We have to mention the different shape of the tablets. Some of them are similar with the Tărtăria ones, rectangular or round. Others have a discoid shape with holes for wearing or attaching them to clothes. There are others, prism or cylinder shaped, suggesting the South-eastern European seals (Rolsigel) belonging to the same time period. By pressing and rotating them, engraved impressions were obtained.

We cannot reanalyze all the pieces, but we can draw some conclusions from what has been published already. Few of the signs on the Romanian tablets are repeated, and each tablet has its own particularity, so that its message should be individually analyzed. The signs on the tablet (the mark in fig. VIIC.40.3) are similar to the ones in our database, with differences concerning their position; they have to be analyzed in comparison with the vicinity signs:

- for code 90a and code 1 there are analogies on the Turdaș tablet (Vlassa N. 1976, p. 172 – 174; Ursulescu N. 1998, p. 102, fig. 26/7);
- for code 49a, code 1c there are analogies at Tărtăria (above, tablet 3.4, 3.5);
- for code 229 there are analogies at Tangâru (Ursulescu N. 1998, p. 103, fig. 27/3).

On the Glăvănești Vechi tablet, the signs on the margins are marks for "reading" the signs on the main side.

The Perieni cult table (fig. VIIC.41)

It is difficult to analyze this piece by only having a very schematic drawing[661].

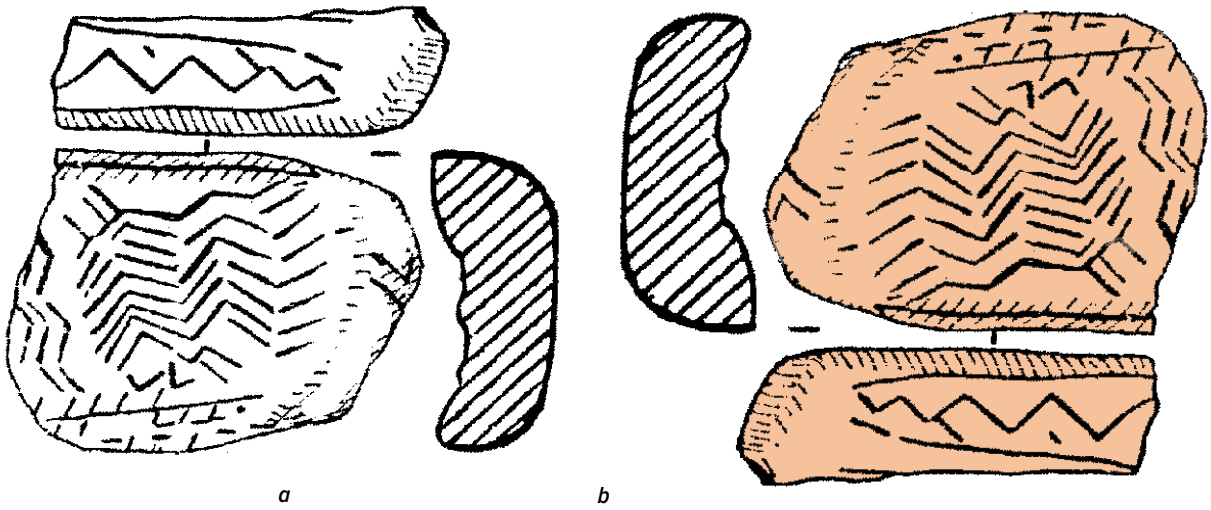


Fig. VIIC.41. Perieni, small cult table in two positions, a and b (drawing after N. Ursulescu 1998).

The shape of the piece suggests a small cult table, similar to the Gradešnica one or with others in the Oltenița Museum[662].

On the other hand, we do not know its position, as the published drawing is too schematic. For an attempted analysis, we numbered the sign groups, as some of them repeat, and this repetition may have a certain logic. But as the piece is broken, the continuity of the signs cannot be correctly appreciated. We believe here is rendered an allegory related to water, and its aspects (rain water – the signs rendered vertically, water from the river or lake – the horizontal ones). The water is bordered by some figures (signs no. 4 – 5, which might be eyes or something else, a snake (no. 8, 13 + 13b), two other grouped signs, no. 11 (if is not broken) and no. 12.

We have placed them in both positions, and we believe the correct one is fig. VIIC.41a. We do not want to speculate further, but we believe that the allegory is related to heavenly and earth waters. Some

[661] Makkay J. 1990, fig. 18/7–8a; Ursulescu N. 1998, p. 103, fig. 27; Lazarovici Gh. 2003; Lazarovici Gh. et al. 2009, p. 95, fig. 1b.
[662] Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 112, fig. Vc.45.

of the signs might figure the ***celestial snake*** rendered sometimes on the vault of ovens or on the front of the houses and/or the ***earth or aquatic snake***. Similar signs are rendered on clay weights for the fish net in the Gumelnița culture as aquatic signs[663] or signs with symbols of the celestial (sometimes ***flying***) ***snake***. Signs 4–5 might mark the divine eyes supervising what happens on earth on ritual occasions. In fact, the divine eye is present several times on altars associated with fire and light for protecting both themselves and the people who lit and maintain the divine fire.

Starting with the Developed Neolithic there are many other tablets, plates, seals with signs and symbols. They have been analyzed, and the signs coded by J. Makkay, Samuel Winn, M. Merlini. The signs found on these pieces are few compared with Tărtăria or others from the end of the Early Neolithic analyzed above. Therefore, signs 4, 7, 12 that received our codes 4, 8 89b, 89c, 93, 100, 111 have analogies on the Tărtăria tablets 3.5, at Tangâru and Glăvănești Vechi.

Trestiana 1. The disc with snake **(fig. VIIC.42a)**

Similar in shape with discoid tablet 2 at Turdaș, intentionally broken into two halves (diameter 5,5 cm; 2 cm thick), the piece has on front face a few entangled snakes. The piece was considered as a possible stopper (?), but the decoration would have had a point only if it had had a certain functionality in a place requiring it. The manner of rendering the snake is very similar with the one on a spindle whorl at Tărtăria discovered by I. Paul (fig. VI.16). Its round shape was appropriate for keeping in palm as most of the pieces commented here.

Trestiana 2. The conical frustum **(fig. VIIC.42b)**

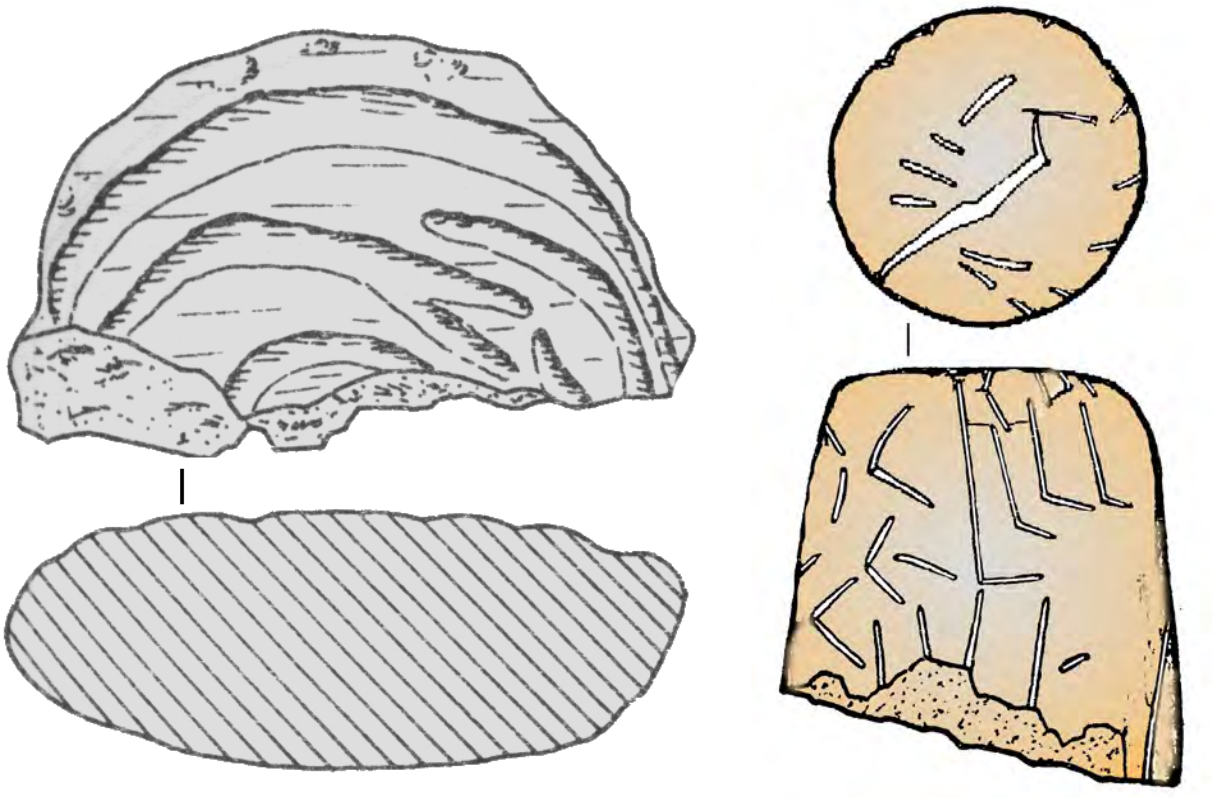


Fig. VIIC.42. Trestiana: a) stopper (cork ?); b) leg of an altar (after E. Popușoi 2005).

A second piece about which it is difficult to establish if it is part of an idol, scepter or something else is rendered in fig. VIIC.42b. Eugenia Popușoi considered it as a table altar leg, but in this case some of the signs would have been pointless because they could not be seen. Some incisions are rendered in "V" or "L", some are repeated, but they can also be a decoration, frequently used at that time. On the head of piece (or on the leg base) a very schematic bird is rendered: the legs – by two incisions and the wings by other three.

663 Lazarovici Cornelia-Magda, Lazarovici Gh. 2007, p. 111, fig. Vc.44.

Parța, tablet 1 (fig. VIIC.43–44)

Parța seems to have been an important economic social and religious center, where several tablets come from, as well as pots and other pieces with signs and symbols.

Here we will focus on two tablets and a seal. The discoid tablet is symmetrically broken, maybe due to the existence of some holes for hanging; the breaking is meant to signify the ceasing of its protective role. If the piece did not have any holes it was held in hand.

As for the signs on this tablet, we believe they suggest birds, maybe eagles. Some signs seem to render the crest or plumage over the head, the open wings, the claws and spread-out tail. Having a round shape, the piece can be looked at from two angles at least, therefore we doubled the codes. When looking at these signs we cannot but think of flying and of the eagles carrying the soul to or bringing it from the sky[664], because of the connection soul-bird and bird-soul, an idea demonstrated by Romulus Vulcănescu about the Romanian mythology[665].

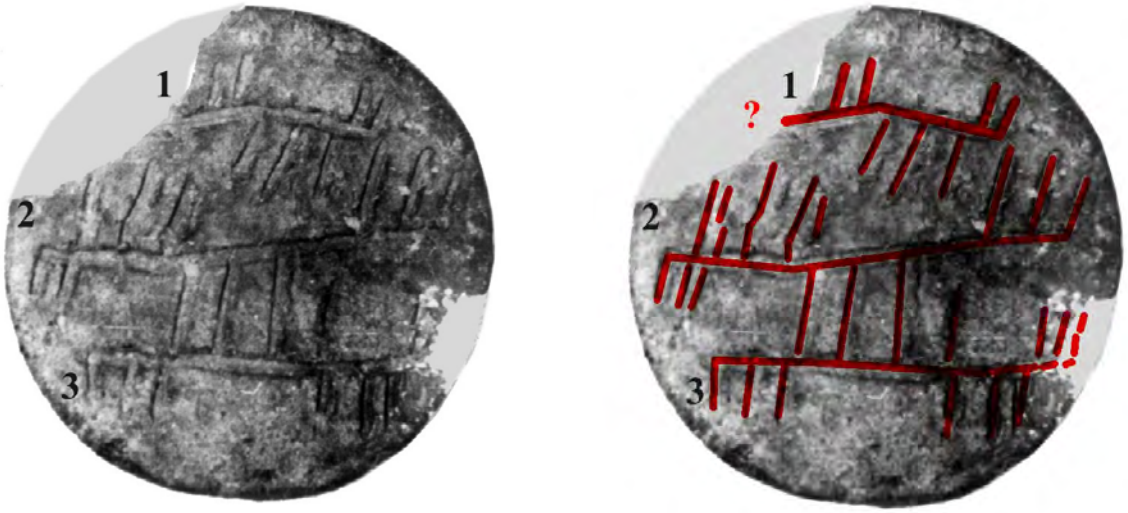


Fig. VIIC.43 a–b. Parța, disc tablet with symbols.

Three lines might be the wings, two the claws and tail, and other two the beak. At Turdaș there are many sherds and idols on which the eagle, the bird or the wings are rendered (fig. VIIC.44b–e), sometimes only the wings, so that we think they symbolize an abstract idea = flying[666].

Mention should be made about the myths related to the soul and Gaia in the Romanian mythology[667], or the Prometheus myth where the eagle carried the news to Zeus. At Çatal Hüyük the eagles carrying messages from the gods have a double arrow on the back[668].

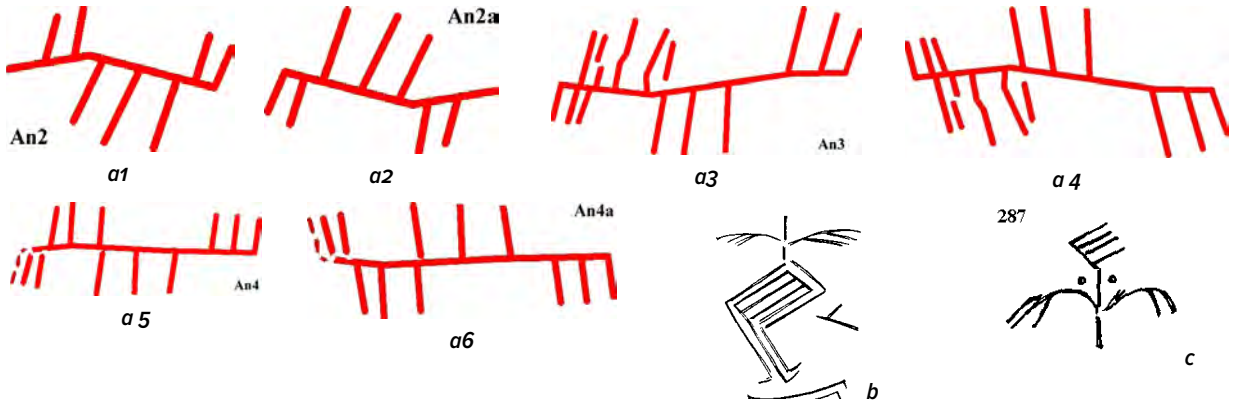


Fig. VIIC.44. Symbols with birds: a1–a6) Parța; b–e) Turdaș.

664 Lazarovici Gh. 2000.
665 Vulcănescu R. 1987, p. 194, 198, 291, 617.
666 Maxim Zoia et al. 2009, p. 153–155, cat. 107–119 and bibliography.
667 Lazarovici Gh. 2000, p. 65–66 and bibliography.
668 Lazarovici Gh. 2000, p. 61, fig. 6.

d *e* *f*

Fig. VIIC.44. Symbols with birds: d-e) Turdaș ; f) Ditrău.

Parța, tablet 2 (fig. VIIC.45)

A discoid plate was recovered from the water; it is concave in the interior, similar to other small cult tables but without legs. On this plate (fig. VIIC.45a) we can observe 3 groups of signs which are frequent in the Danube script (codes 179b, 110, 1a3).

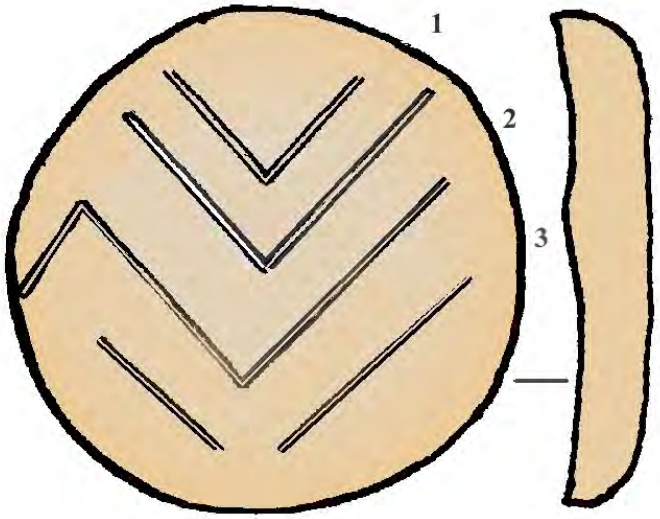


Fig. VIIC.45. Parța, tablet 2.

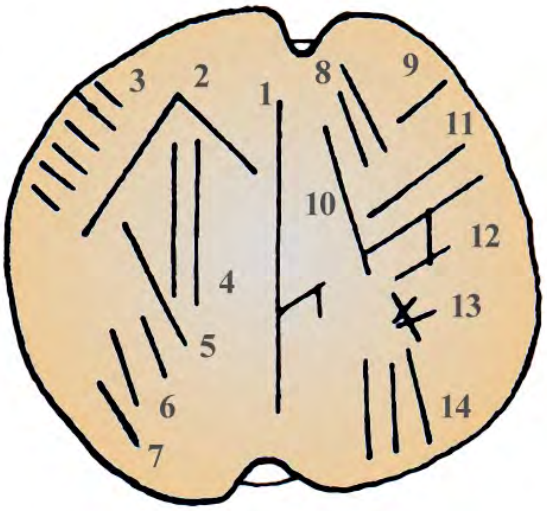


Fig. VIIC.46a. Parța disc n. 3.

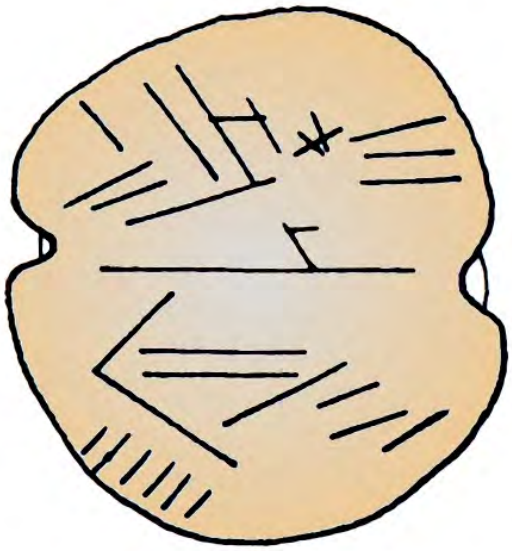


Fig. VIIC.46b. Parța, disc n. 3.

Fig. VIIC.47. Parța seal n. 4.

Parța, disc n. 3 (fig. VIIC.46a–b)

Disc no. 3 is perforated and was probably worn around the neck. We do not know the exact position of signs. If it was tied on a thread hanging on a string, then the position is as in fig. VIIC.45b. If it was part of a necklace together with other pieces, then it has to be rotated 90° to the right (fig. VIIC.46). Even in the second position, the incisions have no other meaning than of signs. Signs 2, 4–5 remind us of some situations at Turdaș, when through this kind of signs they render schematically the pit house or the house [669].

Parța, the seal n. 4 (fig. VIIC.47)

The seal from Parța is concave in the interior, therefore we believe it was applied on loaves of bread or curved objects. The piece renders a human figure in a ritual dance, as results from the position of the arms and legs. In the area of the abdomen there are two signs similar to a half moon. It is possible to represent a feminine figure because of the hairstyle. Such positions are very rare among the signs of the Danube script.

Turdaș Tablet 1 (fig. VIIC.48a–b)

From the Late Neolithic, the old collection of the Turdaș culture, there are two clay discoid shaped tablets. Both were published by N. Vlassa in his PhD thesis[670]. Initially the piece was round, then it was broken and transformed into an idol of the "Trojan" type (fig. VIIC.48c). The piece was published several times by S. Winn[671] as well.

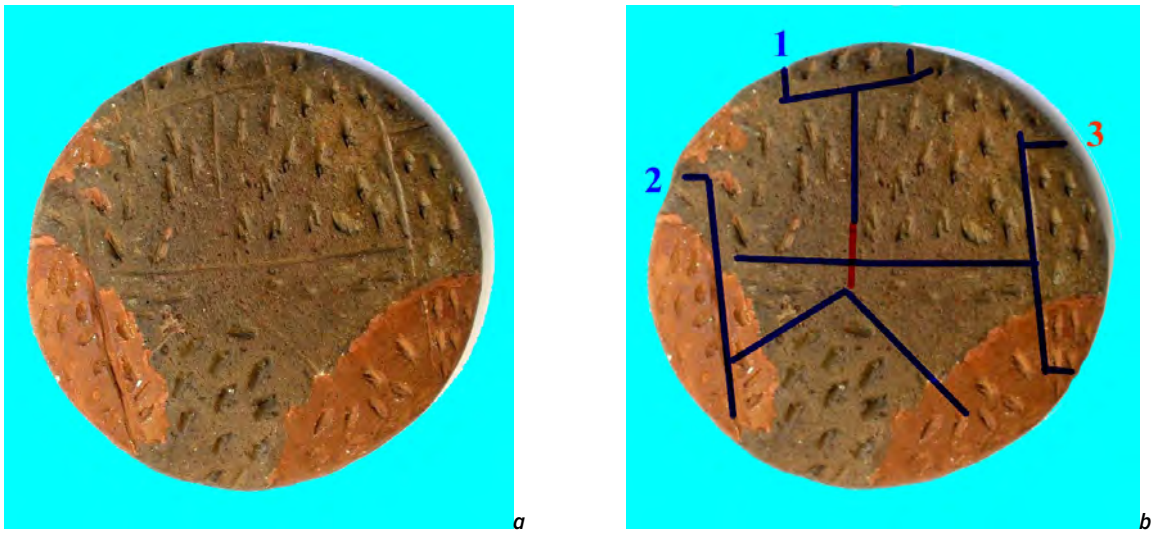


Fig. VIIC.48: a–b) Turdaș tablet 1 (after N. Vlassa) (we colored the areas).

Fig. VIIC.48c. Turdaș, copy after N. Vlassa 1976.

The signs seem to represent an invocation position (codes Om 1a, 1b Om 234a), the same as the rendering of the position on the disc at Suplacul de *Barcău* (fig. VIIC.55).

The disc is divided into three, five signs in five areas. The areas are filled with short incisions, typical for the Turdaș culture. Because the piece is broken we cannot establish if the right arm was similar to the left one or nearly similar. In our codes some signs named Om[672] are similar to these.

Turdaș tablet 2

The piece was published in the same thesis by N. Vlassa. It is made by a rough paste mixed with small pebbles, limestone fragments and organic remains. It is slightly asymmetric, therefore it can be held in the right hand. On one of the faces two almost round incisions , partially preserved (they eroded

669 Maxim Zoia et al. 2009, cat. 23–24, 82–86.
670 Vlassa N. 1976, fig. 19; a colour image we have not.
671 Winn S. 1981, p. 288, Tordos 333; other pieces have been analysed: Tulokk Magdolna, Makkay J. 1999.
672 Lazarovici Gh. see the annex of codes types down.

because of the weak firing and rough porous mixture) follow the asymmetric contour of the piece. A third line in the upper part has zigzags similar with the house roofs or Cassiopeia's symbols. The drawing might also represent a fortification plan from Turdaș (fig. VIIC.49b).

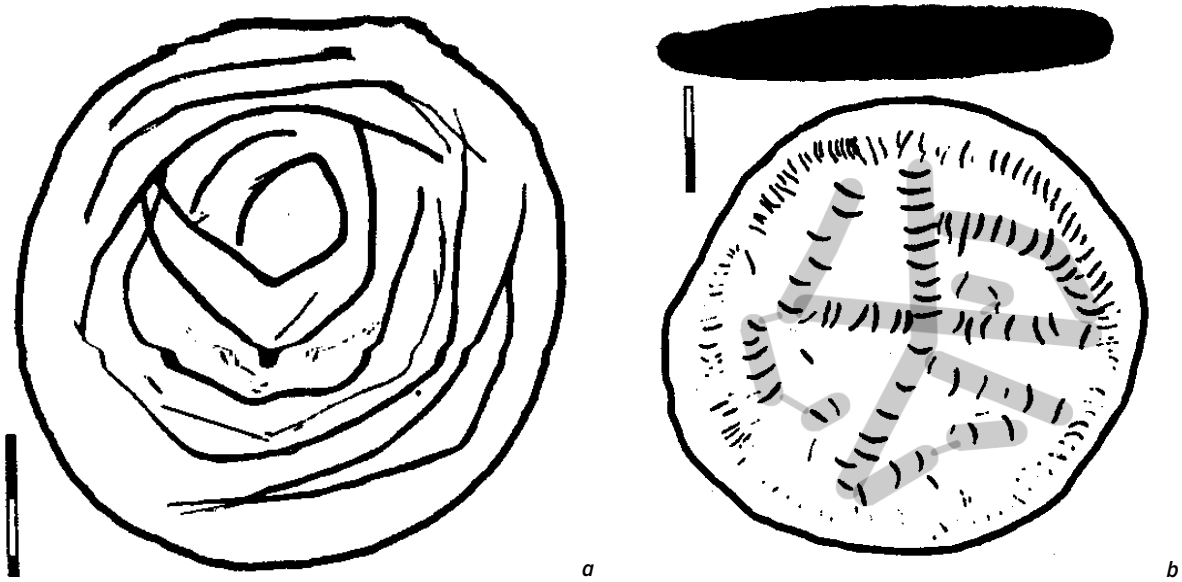
a b

Fig. VIIC. 49. Turdaș tablet 2 (we colored the areas); b) it is posible that incisions represent the fortification system of the site.

On clay discs or spindle whorls circles or spirals are often rendered and on the upper part, the house roof or some mountains related to the cardinal points. There are analogies at the beginning of the Copper Age at Slatino and Sitagroi III[673].

Slatino (fig. VIIC.50) *and Sitagroi* (fig. VIIC.51)

On the back side of the Slatino piece there are several impressions made with the fingernails arranged in lines: in shadow they sketch a knelt figure with upraised arms, as an orante. Such an ornamental technique appears on other pieces but we cannot explain what they represent. At Sitagroi III it is a seal with a similar house pattern (fig. VIIC. 51c).

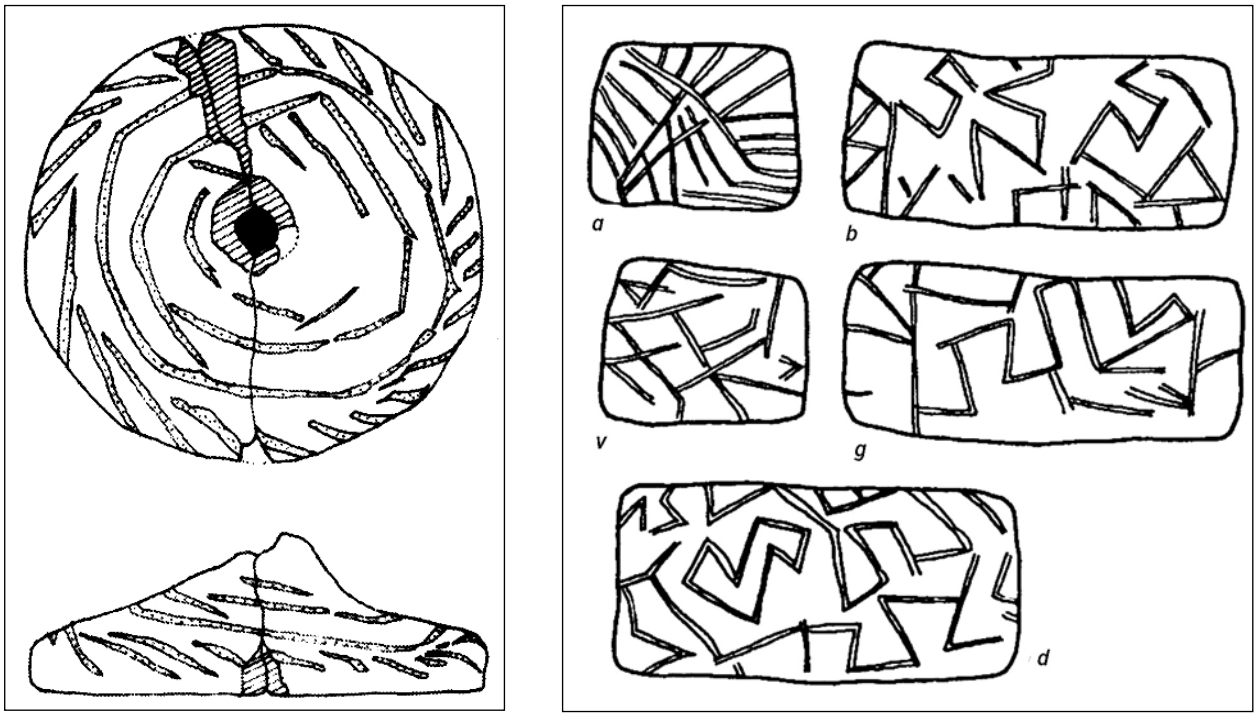


a b

Fig. VIIC. 50a–b: Slatino disc, double visage, after St. Čohađiev 2006 (we colored the areas).

At Slatino there is also a prismatic tablet (fig. VIIC.51b) with a specific decoration and signs with ligatures, i.e. "W", "Y", "Z", "V", "X" and others similar with the ones from the Danube script[674].

673 Čohađiev St. 2006, p. 267 fig. 198/1a; Elster Ernestine 2003, p. 238, fig. 6.13b.
674 Ćohađiev St. 2006, p. 227, fig. 158/6.



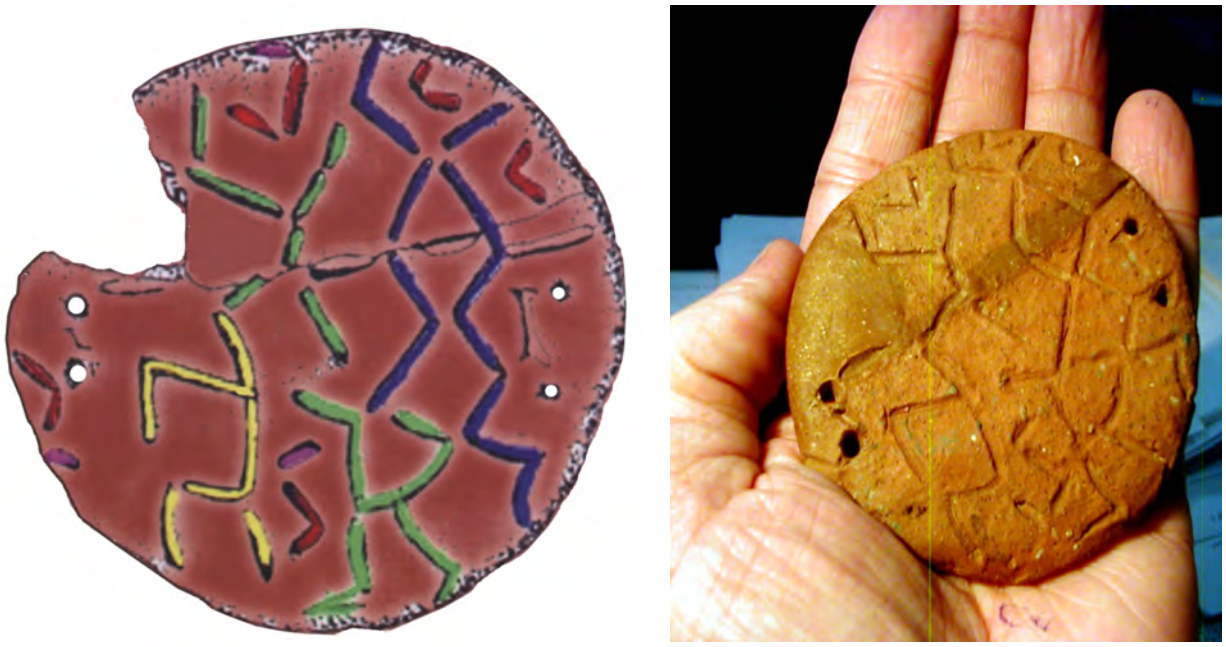
a b

Fig. VIIC. 51: a) Sitagroi III (after Ernestine Elster 2003, fig. 6–13b); b) Slatino prismatic tablet.

At Zorlențu Mare, level II, Vinča B1[675], as well at Trestiana I[676], there is an idol decorated with the fingernails, similar decoration being on one face of the Slatino disc (fig. VIIC. 50b).

The house roof, or the house appear sometimes on pintaderas (Sitagroi III, fig. VIIC. 51a) or on spindle whorls (Turdaș)[677], and other pieces. Maybe it is the sacred house (the sanctuary, the domestic sanctuary, the priestess' house). This sort of roof appears at Chișoda Veche as well (fig. VIIC. 54).

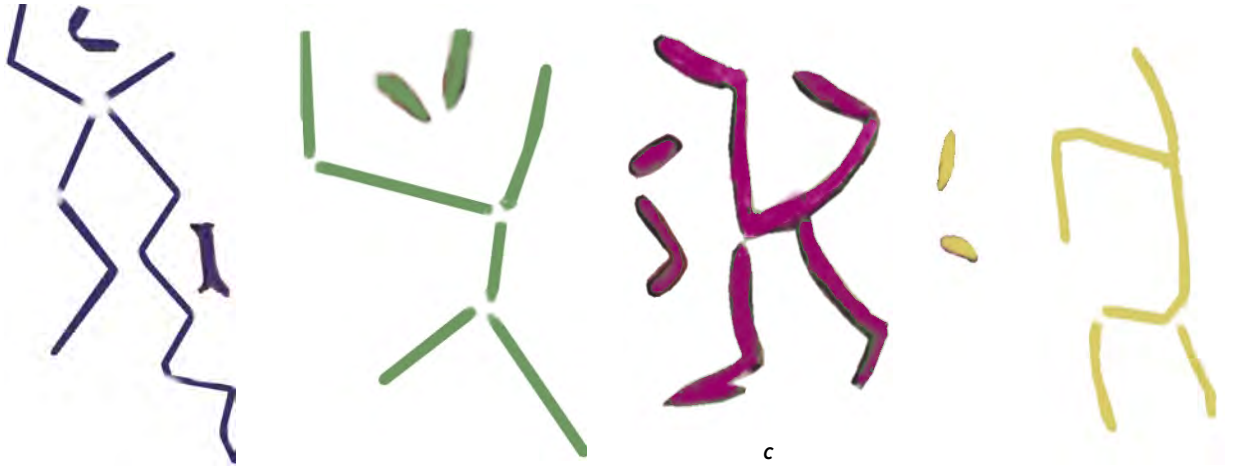
Orăștie.



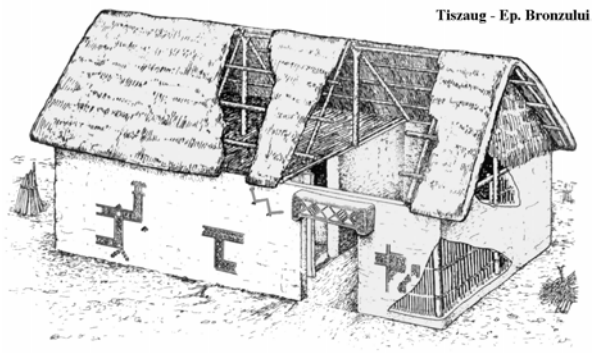
a b

Fig. VIIC. 52a–b: Orăștie, medallion tablet, drawing and picture, after S. A. Luca, C. Suciu 2009.

675 Lazarovici Gh. 1979, pl. XX/H6.
676 In C area, House 6, level 1.
677 Maxim Zoia et al. 2009, cat. 23–24, 82–84.



a b c d



e

f

Fig. VIIC. 53a–d: Orăștie, signs details (we colored the areas); e) Tiszaug dwelling, Hungary; f) Cassiopea, Italy.

At Orăștie was discovered one of the most beautiful models of medallion tablets similar to the one from Karanovo. The size of the Orăștie piece, similar to those worn around the neck from Tărtăria, also has two orifices for hanging or sewing on the clothing. The signs have been studied and analyzed; they contain a true cultic allegory. The stylized figures are elements charged with animism. The symbols suggest and personalize some myths related to the genesis.

We ventured to suggest different interpretation from the one presented by our colleagues Sabin Adrian Luca and Cosmin Suciu[678].

Our idea was to couple some signs outside the figures but close enough to them to allow some associations. These would mark the orientation of the figures. On each figure there are two or three signs. In the first image there might be two snakes, one shorter than the other, with the tail ending in an astronomic variant (inclined with 45° the sign would mark midnight or the solstices) of Cassiopeia, a symbol otherwise frequent on cult objects[679]. Such a representation appears near the entrance of a Bronze Age dwelling in Hungary, at Tiszaug, that we consider as sanctuary, because there are many drawings that mark the special dwellings[680], as is the case of the Sălacea sanctuary of the Bronze Age[681].

Certainly we believe that this piece was worn by a priestess, especially since at Orăștie there is a sanctuary with a monumental stone piece and a foundation ritual (H2/L2) and other cultic inventories in another complex L3[682] with many cult and prestige objects.

Chișoda Veche

In the Vinča C site at Chișoda Veche on a pintadera made of a very porous material there are several incised triangles and lines in "V"; which to us suggest the shape of an unborn child in the womb, inclined

678 Luca S. A. 1993; 2001, p. 42, 83–84, fig. 5/1; Luca S. A., Suciu C. 2009, fig. 4–6 see variants and signs analogies; references at Merlini M. 2009d, p. 577, fig. 9/5.

679 Lazarovici Gh. 2000; 2001c; 2002; 2005; Lazarovici Gh. et al. 2001, p. 273, 274271, 277, 280, 2010.

680 Csányi M., Stanczik I. 1992; Lazarovici Gh. et al. 2001, p. 273, 274.

681 Ordentlich I. 1972, p. 72, fig. 15/4, 7; *DEAVR* 1980, p. 302; Lazarovici Gh. et al. 2001, I.1, p. 237, 246 a.s.o.

682 Luca S. A. 1994, p. 363–367; 1997, p. 29, 65, n. 241, pl. XV/1; 2001, p. 88–89, fig. 6.

Fig. VIIC. 54. Chișoda Veche, Vinča C.

to the right. Some upper signs resemble the shape of a roof and hint to **the house (the abdomen)** and the **familial house**. A rendering of the abdomen in the shape of a house we have at Parța on an idol abdomen found in a cult construction near Sanctuary 2.

Suplacul de Barcău

A very interesting tablet in the shape of a disc, discovered at Suplacul de Barcău by Doina Ignat, was prepared for an international exhibition (Olten, Swiss 2008) but unfortunately it was not included in the final lot of pieces. We do not have all the information regarding this piece, just an image made by Doina Ignat whom we warmly thank again. The piece is worked and decorated in the manner of the idols from the Late Neolithic at Suplacul de Barcău, with points[683].

With points, three human figures in an invocation position, plans of pit houses and a few lines were rendered. Sign 1 = Om 3 appears on the Turdaș tablet (fig. VIIC.49) but has several variants.

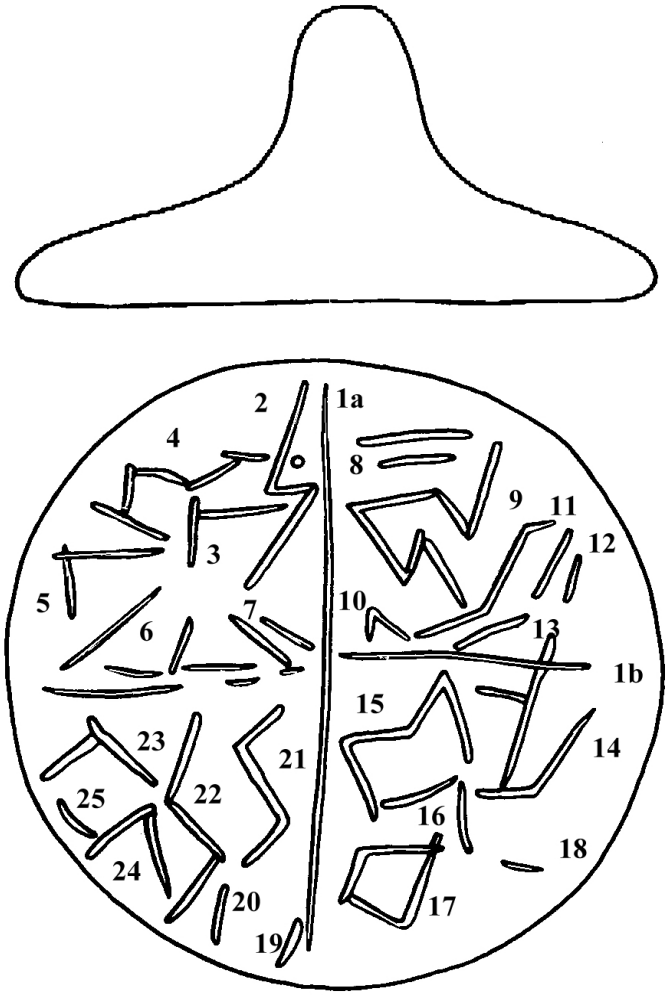
The sign disposition in the central area in the shape of a column is very significant. As about 1/3 of the tablet is broken and missing, we will not longer insist on it.

Fig. VIIC. 55. Suplacul de Barcău, tablet (after Doina Ignat; we colored the areas).

Karanovo

The piece of Karanovo is a seal with a handle for griping[684]. In the first stage of our investigation, based on the published drawing, we considered all the elements as signs. In accordance with the analysis model used for the Tărtăria and Orăștie tablets, we reconsidered the signs and symbols, therefore now we propose another interpretation. On the image published by Marco Merlini we marked in quarters the new positions with symbolic meanings. Similar to the Tărtăria tablets these acquire some meanings regarding the Neolithic religious rites and rituals.

[683] Ignat Doina 1998, fig. 40–43.
[684] Todorova Henrieta 1986, p. 209, fig. 216; Merlini M. 2009d, p. 577, fig. 9/97.



We have introduced the tablet signs in our data base and afterwards we have extracted the results. The correlated signs are presented in the table from fig. VIIC.56b. Cross or X sign is present on the round Tărtăria tablet. In the table one can observe very week correlations. There are cryptic messages. Much more analogies present sign 10, 23 (code 1v), and especially its variants, but we do not analyzed them, while we do not know the meaning of each quarter.

◄ *Fig. VIIC. 56a. Karanovo seal, drawing and photo after Henrieta Todorova 1986 (we colored the areas).*

	149d	1a	150	311	50b	50	1b =c	49b	113c	248	248b	229	1b	259a	243	1
Popiza sign d5	1															
Karanovo	1	1	2	2	2	1	1									
Svetozarevo 2								1								
Tărtăria 3.4							1		1	1	1					
Tărtăria 3.5							1	1	1	1	1					
Perieni sign 4							1						1			
Tangâru						1						1	1	1		
Dolnoslav 130.6												1				
Popiza sign f11													1			
Glăvăneștii Vechi, face							1	1					1		2	3
Turdaș														1		1
Dolnoslav 130.13															1	
Măgura Vitănești F3.5																1
Popiza sign f14																1

Fig. VIIC. 57. Correlated sings with those of the Karanovo seal.

Nova Zagora – Hlebozavora (The bread factory)

The piece is a broken ritual seal, partially preserved (about 40% of its surface)[685]. The upper ring of the piece is marked by oblique lines that permit us to identify the piece position. In the upper left quarter appear several figures, maybe two birds. The "V" (code 1a) may suggest the wings of the second bird. Obviously there are other signs for which we have codes in our database. Other signs remain unclear.

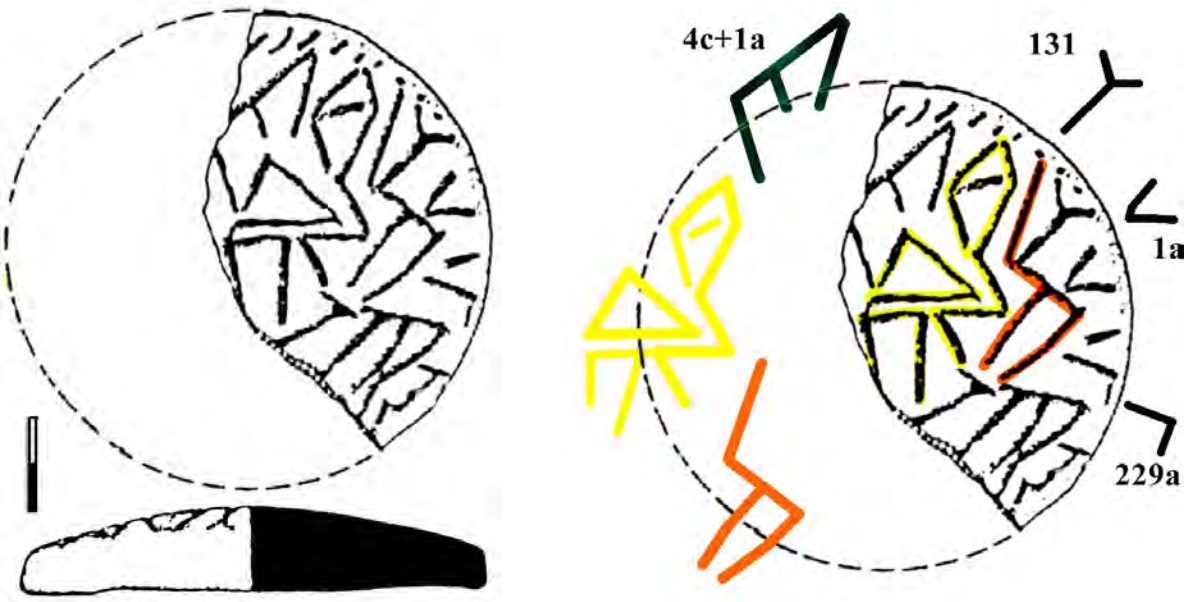


Fig. VIIC.58. a–b) Nova Zagora seal, after M. Merlini 2009d, we have colored the areas.

Dolnoslav

One piece from Dolnoslav is among the most interesting ones. Several signs are grouped around a central figure[686]. Even though the image is good some signs are not clear enough. We identified 13 signs, but there can be more. Of these, numbers 1, 4, 5, 6, 8, 10, 11, 12, 13 have analogies at Tărtăria, and codes 2.1, 2.2, 2.4, 2.7–9, 1a, 1b, at Glăvănești Vechi, Tangâru and Măgura – Vitănești. In the center of the disc there is a big head (mark 2) and two small legs. We have frequently noticed that children draw the sun or moon in this manner. It is also possible that sign 8 is the roof of a house. Let us remember that small cult houses were considered the places where the spirit of the divinity comes, which is an animistic influence, frequently encountered in sanctuaries (the throne, the column, the fireplace etc.).

Fig. VIIC. 59. The Dolnoslav piece according to Ana Radunčeva 2003a (our numbers).

685 Kancheva-Ruseva T. 2000b, p. 12, fig. IV/14, apud Merlini M. 2009d, p. 577, fig. 9.96.
686 Radunčeva Ana 1996a; 2003; 2003a.

We think that the piece was intentionally made in unevenly planed clay, similar to the wonderful painted statuettes from Isaiia and the rough pot where they were kept, suggesting Mother Earth (the pot).

Gradešnica

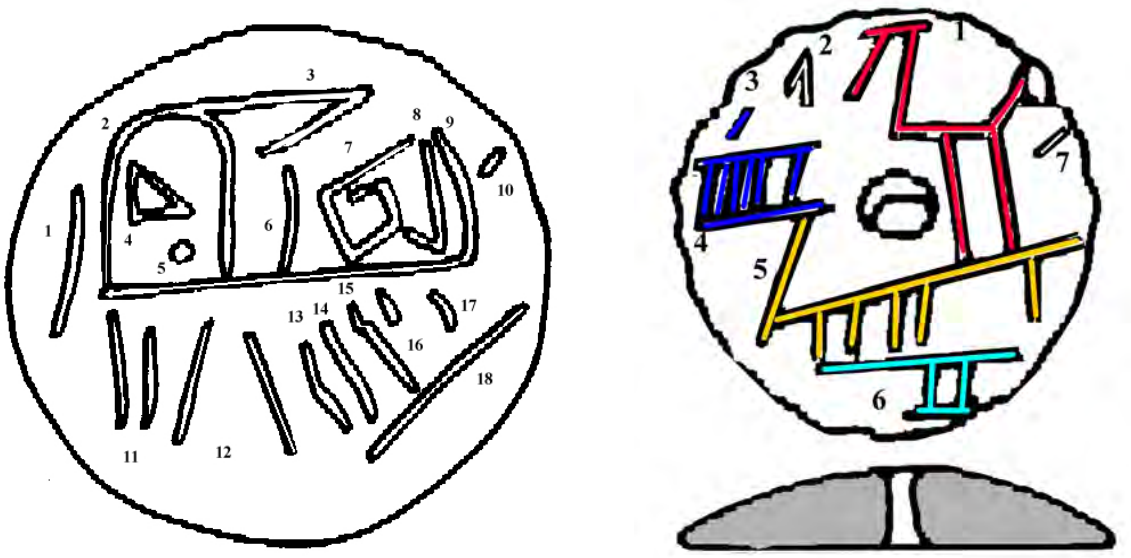


Fig. VIIC.60. Discs with signs, Gradešnica culture (according to Henrieta Todorova 1986).

There are many studies related to different pieces with signs such as altars, idols, pintaderas, and oven patterns. Some specialists named these signs the Gradešnica "script"[687]; our attention will be focused here on three pieces related to our analysis One disc only has signs specific for the Late Neolithic and the beginning of the Copper Age.

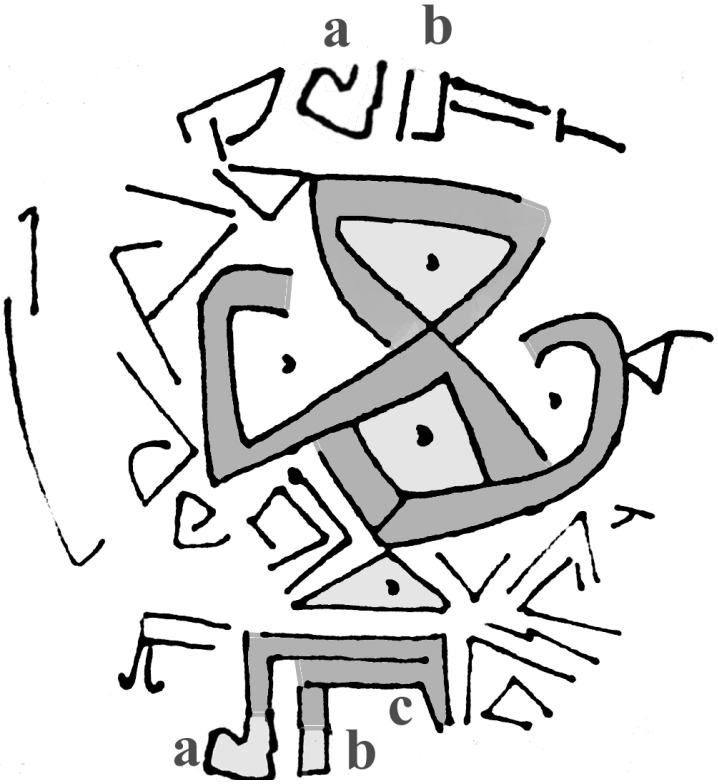


Fig. VIIC.61. Engraved small cult table, Gradešnica culture after M. Merlini 2009d; a–b) legs of small chair/throne; c) our matting.

During this time, beginning with Vinča C and continuing in the Copper Age, the civilizations developed a decoration style used on pots, idols, altars and other cultic objects; this ornamentation consists on meanders and/or spiralled signs, sometimes with an identical variant in the so called "jagged spirals".

One of the most interesting pieces was found at Gradešnica; it is a small table-altar or tray without legs (generally this type of piece have legs, sometimes very short). It has a decoration that continues on the lateral edges. We analyzed the exterior display drawing made by M. Merlini[688] and proposed a new interpretation for some scenes.

We see it as a representation of a figure seated on a

[687] Makkay J. 1990, fig. 28/6: Nikolov B. 1974, p. 110 sqq.; Gimbutas Marija 1991, color pl. 6; Todorova Henrieta 1986, p. 80, fig. 12/1; Todorova Henrieta, Vaisov I. 1993, p. 215, fig. 205; Merlini M. 2009d, p. 333–340 a.s.o.

[688] Merlini M. 2009d, p. 337–375, fig. 5.313, 5.379, 5.394.

throne/chair with raised arms in an invocation attitude (oranta). As the legs of the seated figure did not fit into the picture, they were located on the opposite part. Their location is related to a certain myth of the flying leg, running quickly, leaving traces on the earth or maybe in the sky as well. The signs in the vicinity must be related to the respective parts and the meaning of the human body parts, which are problems that were only scarcely studied for the art of modelling in the Neolithic.

Kurilo

Besides the characteristic drawings, some clay discs from Kurilo, from the culture with the same name in the Northwestern part of Bulgaria and contemporary with those from the Gradešnica culture (they may be related cultural groups) also have signs and symbols (as they are related to another cultural circle, we do not intent to further interpret or analyze them here). In fact, similar symbols and signs can be found at Brenica as well. These symbols and signs are related to similar phenomena of the Vinča C variants in Eastern Serbia.

Fig. VIIC.62. Kurilo, Late Neolithic– Early Copper Age, Kurilo – Gradešnica culture (after M. Merlini 2009d).

Predionica (Winn code 364)

Another disc from Predionica has its surface divided into four almost symmetrical quarters[689].

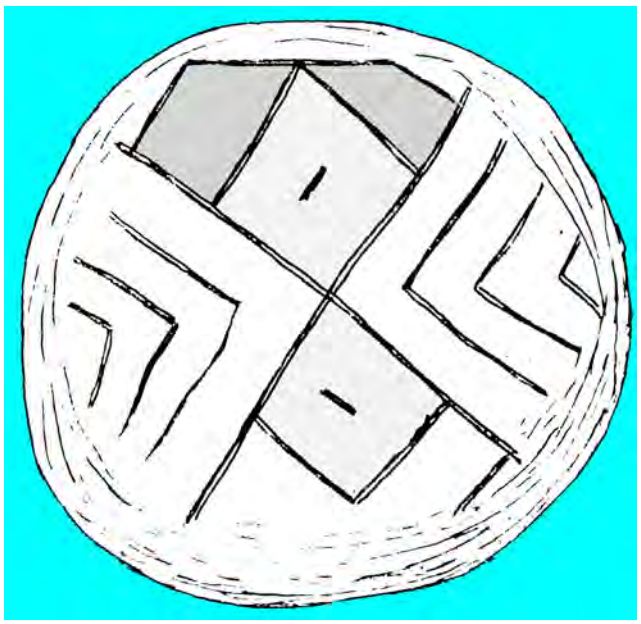


Fig. VIIC.63. Predionica (we colored the areas) after S. Winn 1981.

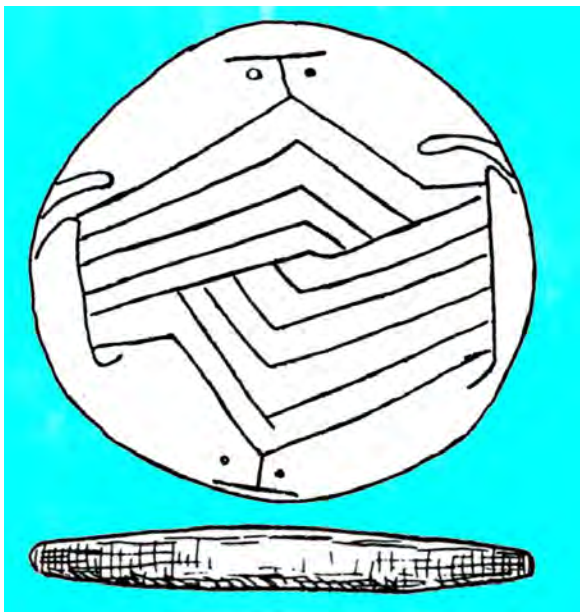


Fig. VIIC. 64. Priština, after S. Winn 1981.

By analyzing the piece we can see a human figure is rendered, maybe a woman with plaits. The legs are not symmetrically rendered; as only one can be seen, the other one was either omitted intentionally from the drawing or not preserved. The figure is enclosed in two X shaped opposite squares in, with lateral parts decorated with chevrons in "V" consisting in three lines symmetrically disposed.

[689] Winn S. 1981, p 364, Pred 8.

Priština (Winn code 365) (fig. VIIC.64)

The disc from Priština[690] is almost symmetrical, representing an interweaved meander formed by four and five lines, respectively.

Fig. VIIC.65. Cluj disc, after N. Vlassa 1976.

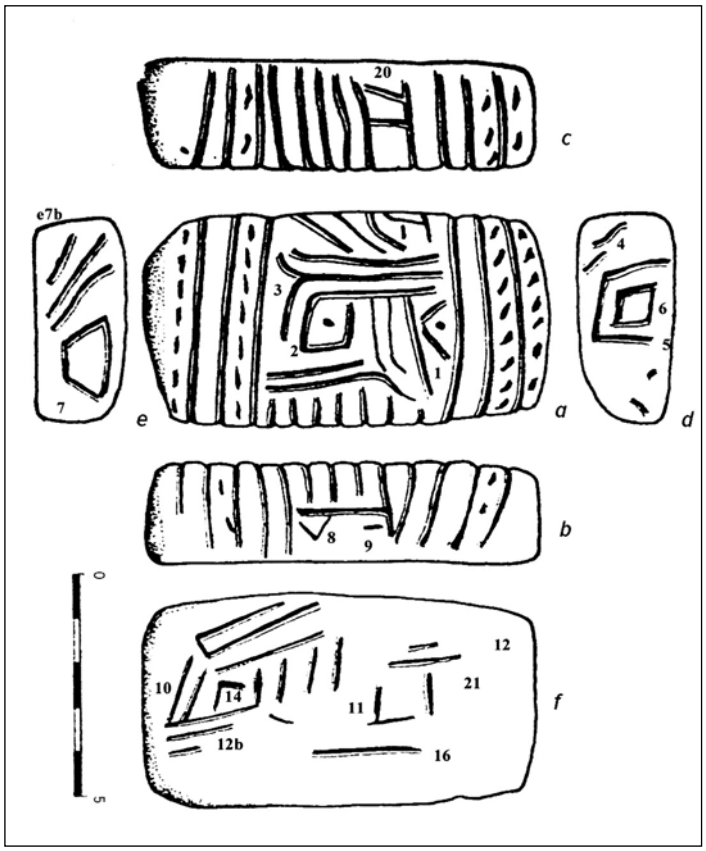


Fig. VIIC.66. Popica tablet (passim).

The angles of the meander are marked by a T shaped human face with two eyes rendered under it. The figure are slightly asymmetrical to the right. On the corners of the meander two half moons as two arms are rendered.

The plate at Cluj-Napoca, Sf. Mihail

This piece is broken almost on the median line. In the preserved part there are two small holes; we do not know for sure if in the missing part there are other two symmetrical holes. If the piece only had these two holes, then it could be hung; if there were four holes in the whole disc, then the piece could also be sewed on clothes.

The areas between the incisions were painted in red and some larger fields were painted in red and yellow. Finally, we will have a more detailed analysis of a tablet from Popica (Kurilo culture) shape as a prism. There are several other such tablets, almost contemporary with it, but some of them are only decorated with meanders (Rast). Such tablets have the same rectangular shape as the one at Tărtăria but they have not perforations.

Popica

The mentioned tablet at Popica has decorated parts associated with signs that generally appear on the chest or abdomen of idols, on tablets, bottom of pots, cult pots or altars. Sixteen of the 21 signs can be found in our codes for the Danube script (... 150g, 7c, 0a, 1, 126, 149d, 150a, 158b, 163a, 163a, 163d, 163z, 1a, 1a1, 1b, 276e, 76a, 126); the most frequent is sign 163a (used three times) but there are others without codes[691].

Grivac – The clay disc

At Grivac, during the Vinča C phase was discovered a clay disc, announced by S. Winn[692]. On the body of the piece, 3 or 4 semicircular bands are asymmetrically disposed around a central curvilinear sign. As the piece was ritually broken we can not define exactly the sign located in the main area.

690 Winn J. 1981, p 365, Priš 3.
691 Todorova Henrieta 1981, p. 209 fig. 114/1.
692 Winn S. 1981, p. 326, Gri 1–2.

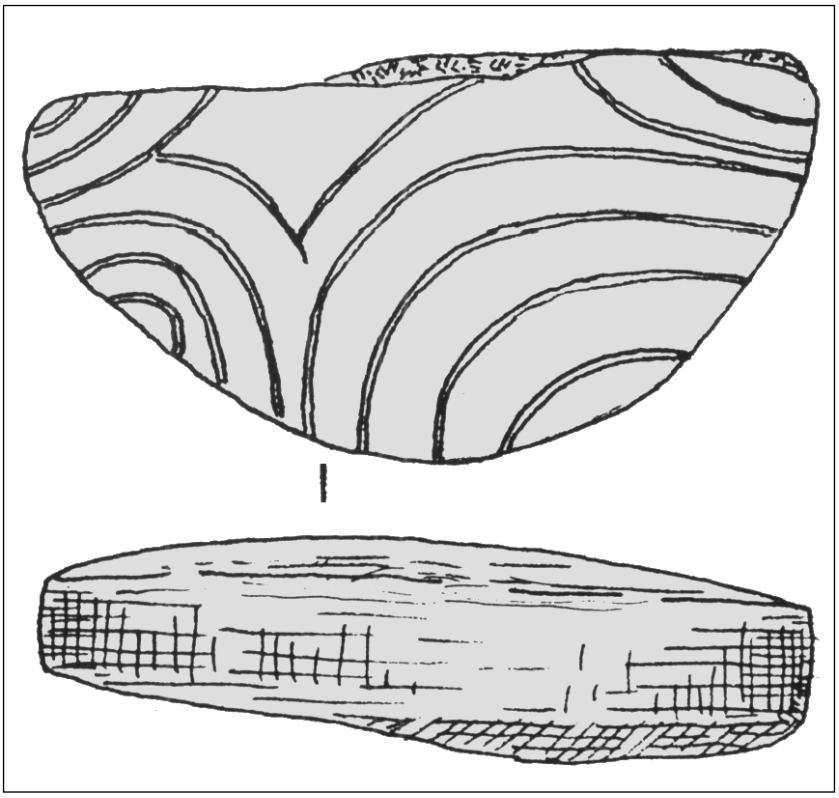


Fig. VIIC. 67. Grivac disc, after S. Winn 1981.

Thus, it is clear that it is about a lunar semi-cycle that is, repeated 3 and 4, plus the interior sign.

There are many other smaller discs and plates that we do not mention here, as they were already extensively presented (including correlations between signs) by Cornelia-Magda Lazarovici[693]. But all these pieces present only signs, not allegoric figures; only some of these signs necessitate special studies in correlation with symbols.

Another category of pieces we want to discuss here are the tablets discovered at Isaiia. At Isaiia – *Balta popii* two sanctuaries were discovered (in fact the second sanctuary was rebuilt in the same place); here there are the most evident and clear object depositories and ritual inventories: a hoard with cultic objects, column fragments, cultic small altars, "shaman" kits (of a priestess, we believe) and others[694]. From among the objects, we have to mention the two tablets ritually broken.

Isaiia, Tablet 1 (fig. VIIC.69)

In the first tablet there are rendered two or three elephant families (the last one is in the broken area). At first, we believed that only signs were rendered there. By highlighting the spaces between the lines and by altering the colors we can see some families of about 10–11 elephants. Special attention was given to the head, trunk, eye and sometimes to tusks, but it was not always possible to decide which animal the tusks belong to.

Isaiia, Tablet 2 (fig. VIIC.68)

On the second tablet other animals are represented in the same manner, therefore we believe it was made by or it belonged to the same person.

There are three figures on the tablet. The one at the bottom might be a wild aurochs (*bos primigenius*) with a superposed turtle or bear cub; above it appears to have been another figure of which only two fangs can be seen clearly (the figure is not clear). The scene continued on the broken part but, as we have already mentioned, more than a half is missing.

There are many other lines whose interpretation is too difficult to infer. We obviously believe that here there is a mythology related to elephants; the person who made the drawings had a good image about this sort of animal and especially about the herd behavior.

The presence of such an animal is not singular, there are other such representations during the Neolithic at Donja Branjevina and in the Danilo and Hvar (fig. VIIC.70) cultures; at Lepenski Vir is rendered a hunting scene where an elephant or an aurochs tramples a hunter[695].

We have mentioned above several small tables-altars (at Gradešnica) or the altar with signs at Tărtăria (fig. VI.9–14). We cannot decipher the meaning of some of these signs, but by comparing them with others, we manage to get closer to the Neolithic mentalities and their manner of rendering symbols.

693 Lazarovici Cornelia-Magda 2009.

694 Ursulescu N. 2001b; 2002; Ursulescu N., Merlan V. 1997; Ursulescu N., Tencariu F. 2006; 2007.

695 Dimitrijević S. 1979, II, pl. XCIV, LXXXVI/2; Srejović D. 1969, fig. 75–76.

a

b

Fig. VIIC. 68. Isaiia: tablet 2 rendering a bull (a) and a turlle (b), after N. Ursulescu, F. Tencariu 2006.

In many religions, the elephant plays the role of the heavenly animal that supports the world, in fact the whole universe sits on an elephant back. It is the instrument of heavenly action and blessing, of knowledge and royal power, having many other meanings[696].

[696] Chevalier J. Gheerbrant Al. 1995, s.v. elephant.

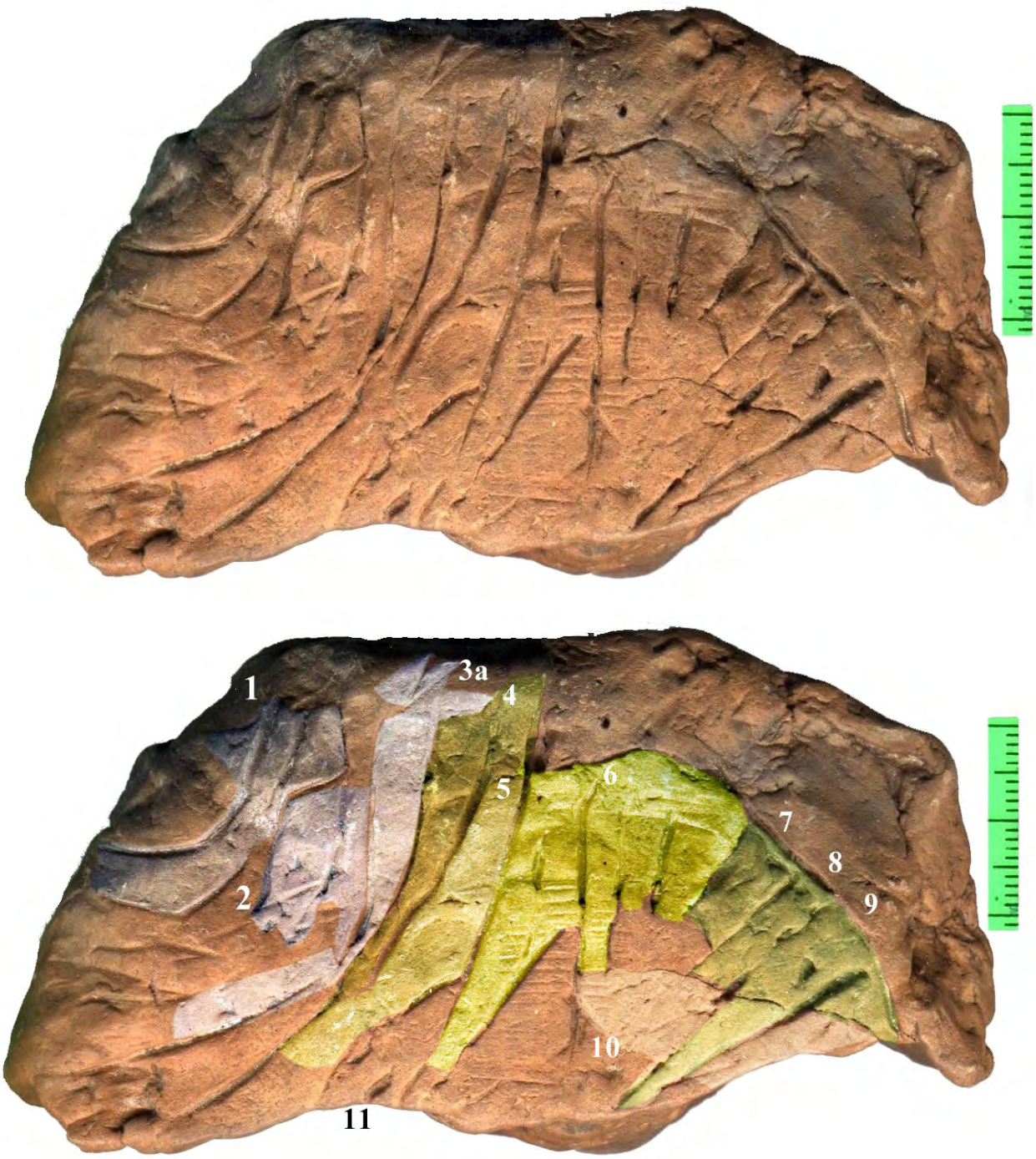


Fig. VIIC. 69. Isaiia, tablet 1 rendering an elephant herd, detail.

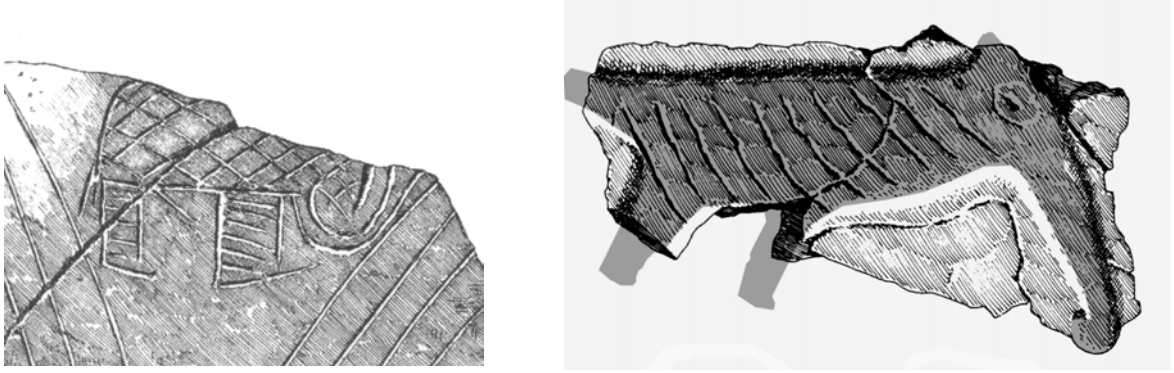


Fig. VIIC. 70. Drawings with elephants on pot walls, Vučedol and Danilo cultures (after Praistoria Jugoslovenskih Zemalja 1979).

Fig. VIIC. 71. Vinča – Bjelo Brdo (after M. Vasić).

On the bottom of a small cult table from (Vinča fig. VIIC. 71) we can see a small house (the image that can only be seen only if the piece is upturned); this idea was also rendered on a lamp pot with several signs and symbols at Zorlențu Mare[697] (fig. VIIC.72).

Zorlențu Mare (fig. VIIC.72)

From a functional point of view the piece from Zorlențu Mare was hung somewhere up in order to give light and the house is pictured upside down. We believe that the house was rendered in this position so that it could be seen from above by the divinity when the lamp is lit (the rushlight is used even today to illuminate a sacred corner, usually under an icon, especially Madonna's) through the light it symbolizes the relation with the divinity.

All these practices have been lasting for thousands of years.

After this long presentation of the tablets, plates, discs, flat table-altars (with or without short legs), we clearly see that these objects contain cultic mythology where one can discover several primordial myths such as genesis, the genesis of light, the relation between man and divinity through signs and symbols, as well as a complete cultic mythology, closer and better known at that time than we can imagine today.

a *b*

Fig. VIIC. 72. Zorlențu Mare: a) cult table (pot) with a house model; b) disc with signs.

The tablets were used for keeping, learning and getting to know some rituals and rules of spiritual behavior. They were genuine primers or spelling books for a time we should approach closer and more carefully, even if some of the hypotheses seem absurd, because, as we know from the existentialism, the absurd is the ratio between the rational and the irrational on the grounds of existence or subjectivism (*MDEX*). Some signs might be cryptograms, others allegories, parables, logograms. They are essential elements for knowledge and communication. The empires used to keep their records on tablets, beginning with Sumer to the Roman period (i.e. the tablets covered with wax) and they were also used to teach writing by many previous generations[698].

[697] Lazarovici Gh., Lazarovici Cornelia-Magda 2010, "Sacred house", p. 88–114, fig. 8.
[698] Gh. Lazarovici in the first and second grade learnt to write by using such tablets.

CHAPTER VIII
MORTUARY PRACTICES AND RITUAL GRAVE TO CONSECRATE A NOVEL ANCESTOR

MARCO MERLINI

THE CONCEPTUAL FRAMEWORK

The present chapter investigates the scenario emerging from mortuary ritual. It concerns the planned and multi-stage funeral program; the identity of the departed and its social role within a medium-scale[699] Middle Neolithic community that developed in Transylvania; how the survivors coped emotionally and socially with the disappearance of an influential person; the involvement of a corporate, linear descent group[700]; and the spatial patterning in the location of the disposal pit. It involves also the expression of symbolic themes in a distinct cultural milieu that included philosophical-religious beliefs and world-views. In order to frame the deposition of the inscribed tablets within the arrangement of a ritual pit-grave that consecrated an elderly and ill female ritual specialist as a revered ancestor, the starting point is the recognition of the mortuary data and program. It includes the premeditated and sequential series of funerary events resulting in the context of discovery, such as the treatment of the corpse, interaction and manipulation after the process of decomposition, choice of the place for a secondary burial, ceremonial re-disposal of the dead, etc.[701].

The link with the ancestral dead was the dominant principle of social transformation in the Danube-Balkan Neolithic[702]. The consistency of this cult is evidenced by the very small number of people who were chosen for symbolic retention among the living after death[703]. According to this setting, the inscribed Tărtăria artifacts are an indication of a mainly non-language related script[704], the "Danube script", that developed in the Vinča culture, as well as in other cultures of the Danube civilization[705], as a component of social reproduction strategies supporting the ancestral ideology of kinship-based communities.

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699 The archaeological site of Tărtăria nowadays is 3–4 hectares, and more then 40–50% of the surface remains unexcavated.

700 Since Lewis Henry Morgan ([1851] 1922; [1877] 1982), anthropology refers to a "corporate group" as a kinship or descent group with rules of membership/exclusion and collective ownership and/or control, and/or utilization, and/or access to crucial and inalienable but restricted economic resources (e.g., agricultural land, natural resources, irrigation wells, etc.) often by means of lineal ancestry from a distinct dead ancestor (Saxe A. A. 1970; Murphy R. F. 1989, p. 118), sometimes retaining its identity over numerous centuries, if not millennia (Hayden B., Spafford J. 1993, p. 136). The largest descent group unit can be recognized as a lineage, or a clan. It takes advantage of a common ancestor to mark the social unity and identity of its members, differentiating them from other groups (Fowler K. D. 2004, p. 95). The corporate group and lineage, typically described as a lineal descent group, has also been identified as a valuable unit for archaeological analysis on prehistoric social organizations. However, little theoretical modeling has been attempted (rare examples of modeling are Freeman L. 1968, p. 262–267; Saxe A. A. 1970; Hayden B. 1977 who has had a long-standing interest in "residential corporate groups" – i.e., houses where many families live and within which ownership is inherited – that are typologically differentiated from smaller residences occupied by a single nuclear family or limited extended family; Goldstein L. 1981; Hayden B. and Cannon A. 1982 employed the concept within an ethno-archaeological analysis of over 150 households in the Maya Highlands; Hayden B., Spafford J. 1993; Hayden B. et. al. 1996; Hageman J. B. 2004, p. 63–74). The Saxe-Goldstein Hypothesis has been applied in a number of archaeological settings (e.g., Cunliffe B. W., Renfrew C. 2002, p. 516). The investigation of the distinct conditions under which corporate groups and lineages emerged and operated in the early farming communities creating villages and households of the Danube civilization is of theoretical significance to the entire discipline of archaeology.

701 See Lovis W. A. 1992; Schroeder S. 2001, p. 85–87; Eastman J. M., Rodning C. B. 2001, p. 86,113; Fowler K. D. 2004, p. 7; Robb J. E. 2007, p. 287; Stutz L. N. 2008, p. 22.

702 Chapman R. 1994; Jones A. 2005.

703 Chapman J. C., Gaydarska Biserka 2007, p. 12.

704 The expression refers to signs expressing ideas rather than the sound of words in a specific language.

705 The term "civilization" is used by the author to indicate a complex society with overarching ideologies that possesses a high cultural core (see Yoffe N. et al. 2005, p. 253). "Danube Civilization" is an over-arching term for the Neolithic and Copper Age societies of Southeastern Europe that flourished from c. 6400 to ca. 3500–3400 BC (Childe V. G. 1929; Haarmann H. 2002, p. 17–19; Merlini M. 2004). This terminology is coherent with the acknowledgment that the Danube River and its tributaries favored the emergence of an institutional, economic, and social network of developed cultural complexes, cultures, and cultural groups that shared several features over a wide territory. They were characterized by extended subsistence agrarian economies and lifestyles, urbanism, refined technologies (particularly in weaving, pottery, building and metallurgy), long distance trade involving status symbol artifacts, complex belief systems, and sophisticated patterns of religious imagery. They were also indicated by effective systems of communication by means of symbols and signs (the *Danube Communication System*) which included the technology of an archaic and mainly non-language related writing.

An inquiry into the mortuary behavioral chain[706] and its determinants will be made by applying the balanced, holocultural[707], and multidisciplinary approach advocated by Carr[708], Schroeder[709] and others, as much as it will be possible within the lack of data. The categories of social organization[710] and socially institutionalized philosophical-religious themes and belief system, as well as worldview assumptions[711] will be explored and interrelated. Indeed, specific mortuary behavior and practices are affected by a wide range of referent factors and meanings.

The treatment of Milady Tărtăria's cadaver was related not only to the identity of the person in life and her role within the community but also, and not less, to broader social and cosmological ideals of what she was going to be in the afterlife[712]. In order to make a sound comparison, it is significant to note that the "materialist-ecological"[713] and "neo-evolutionary"[714] views applied to the coeval and neighboring Linearbandkeramik / LBK culture (ca. 5400–4900 CAL BC[715]) generally class phenomena such as fragmentation of bodies, defleshing, and secondary burial as indicators of low status of the deceased, or as utterly deviant behavior expressing a profound crisis. On the contrary, the different treatment of the dead, contrasting with ordinary depositions into LBK cemeteries, actually reveals not difference in rank, but symbolic propensities concerning the dissolution of a composite person constituted by flows of goods and substances[716]. What was the identity of the individual buried at Tărtăria? Why was this specific individual identified and selected for a special mortuary ritual? What was its social position or status? In addition, what was the nature of the social relationships between it and the community?

Dating and identity of the skeletal remains

As mentioned in a previous chapter, from the analysis made by the Laboratory of the Department "Scienze della Terra" of La Sapienza University, Rome (Rome – 1631/human bones: 6310 ± 65 yr BP), the calibrated age of the bones found at Tărtăria is 5370–5140 BC[717]. If one compares this date with the chronostratigraphic sequence of Transylvanian and Banat sites, one can place the ritual complex from Tărtăria into the early Vinča period[718]. It may belong to the Vinča A2 as at Miercurea Sibiului-*Petriș* soon after 6500 BP[719] or more probably to the Vinča A3 culture, as at Liubcova I[720] and Miercurea Sibiului-*Petriș* at the interval 6350–6200 BP[721]. The ritual complex from Tărtăria is less likely assignable to the Starčevo-Criș IVA culture (coeval with Vinča A2), as those from Cârcea, Banat culture I[722].

In the previous literature, the bones found in the "ritual pit" were originally assumed to belong to an adult male person aged about 35–40[723]. It has been suggested that he was a shaman, a spirit-medium[724], a "supreme" priest[725], or a high dignitary based on the associated artifacts and a supposed cremation ritual designed for an out of the ordinary person.

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706 Bartell B. A. 1982, p. 53.

707 A paradigm of research for testing hypotheses "by means of correlations found in a worldwide, comparative study whose units of study are entire societies or cultures, and whose sampling universe is either (a) all known cultures... or (b) all known primitive tribes" (Naroll R. et al.1976).

708 Carr C. C. 1995, p. 107, 120.

709 Schroeder S. 2001, p. 77.

710 Binford L. R. 1964; 1971, p. 7, 16, 23, 25; Saxe A. A. 1970; 1971; Saxe A. A., Gall P. L. 1977; Brown J. A. 1971; 1981; Peebles C. S., Kus S. M. 1977; Tainter J. 1978, p. 107; Braun D. P. 1979; Greber N. B. 1979, p. 38; Rothschild B. M. 1979, p. 660; Goldstein L. 1981, p. 9; O'Shea J. M. 1984; Byrd B. F., Monahan C. M. 1995.

711 Hertz R. 1960; Tainter J. 1978, p. 121; Huntington R., Metcalf P. 1979; Pearson M. P. 1982; 1993; Hodder I. 1982; 1984; Penney D. 1983; Barrett J. C.1990; Morris I. 1991; David N. 1992, p. 187, 195; McGuire R. H. 1992; Sugiyama S. 1993; Carr C. C. 1995; Carr C. C., Neitzel J. E. 1995; Chapman R. 1995; 2003; Gillespie S. D. 2001; Sullivan L. P. 2001; Harke H. 2002; Carr C. C., Case D. T. 2005.

712 Brück J. 2004.

713 Carr C. C. 1995, p. 114.

714 Morris I. 1991, p. 163.

715 Merlini M. 2009d, p. 467.

716 Hofmann D. 2009.

717 Merlini M. 2004, p. 289; 2006; 2009d.

718 Lazarovici Gh., Merlini M. 2005.

719 Luca S. A. et al. 2011a; 2011b.

720 At Liubcova, level Vinča A1-A3 occurs, but a Vinča C1-C2 stratum is also present. Mantu Cornelia-Magda 1995; 1998a; 1998b; 2000; Schier W., Drașovean Fl. 2004.

721 Luca S. A. et al. 2011a; 2011b.

722 Mantu Cornelia-Magda 1998a; 1998b; 2000; 2002.

723 Whittle A. 1996, p. 101.

724 Chapman J. C. 1983.

725 Tonciulescu P. 1996.

Concerning the identity of the very special buried person, according to the anthropometric analysis of the bones, it was a *female* individual of Mediterranean type, very aged for the standards of that time (50–55 years old). Palaeopathological markers have established that she was very ill and in pain because of a degenerative-arthritic process causing malformation from an early age. She had a severely curved posture forming a > (an arrow shape) due to a decalcified and fragile vertebral column. She limped on her right leg since youth, because of her thicker, anchylosed, and shorter right femur and leg. The tendency to angle towards the right was accentuated by scoliosis that deformed the right side of the torso and the right shoulder.

It is evident that since childhood this person was not self-sufficient due to her physical disability, especially with regard to the procurement and production of food. Since the time of meta-cultures, physical abnormality was sometimes considered not a social handicap, but a sign of distinction to activate on the other side of the world, i.e., preferably the exploration of uncommon powers. Hence, the connection between physically disabled people and the sphere of otherworldly powers used to guide the destiny of human beings who are normal and equal, i.e., without any sign of differentiation. In particular, lameness appears in a number of myths and rituals documented in Mediterranean and Continental Europe, the Americas, and China. All are apparently linked to seasonal transitions: day and night are always in unbalance, being one shorter or longer[726]. Carlo Ginzburg, in *Ecstasies*, analyses the recurrent motif of the limping shaman, the sorceress with one hoof, the child with a limp leading werewolves, the one-sandaled hero, or even Cinderella and the loss of her single glass slipper. According to his ethno-historical research, the person with injured or missing feet appears to be an intermediary figure between the world of the living and that of the dead or the spirits, because anyone who goes to and returns from the netherworld is marked by such an asymmetry[727].

The ambulatory imbalance that characterizes gods such as Hermes, Hephaestus and Dionysus has been deciphered as a symbol of temporary or permanent association with the world of the dead. The related ritual of the *askoliasmos* – a game played at winter celebrations in honor of Dionysus Lene to enhance the regeneration of the vegetation god – consisted of hopping around on the skin of a sacrificed goat filled with air and smeared with oil by keeping balance on one foot. The contestant who could keep his place on it for the longest time, was the winner[728]. The verb *askoliazein* indicates the crane's habit of standing on one leg. It is not incidental that a ritual crane dance (*Geranos*) was practiced at night in Delos and Crete. According to Plutarch, Theseus and the rescued Athenian youths, after they slew the Minotaur and landed on the island of Delos, performed for the first time the famed Cretan crane dance (with harps for accompaniment). During the dance they imitated threading the Labyrinth. This dance is mentioned by Homer in the *Iliad*[729]. Shamanic transformation into a bird and the crane dance both have very remote roots. Wings of the Common Crane (*Grus grus*) have been discovered from the East Mound (space 73, unit 1347) at Çatalhöyük in Anatolia. It is thought that they were used to create a ritual costume[730]. Russell and McGowan interpreted the find as coming from a spread wing to be attached to the shoulder of a dancer and employed in rituals possibly connected with the celebration of marriage[731]. Merlini identified the earliest depiction of a crane dance at Göbekli Tepe temple in Turkey on stela 33[732].

Even if far in time and distance from Milady Tărtăria and her early agricultural community, it is significant that similar evidence of a female shaman burial turned up at the Late Epipaleolithic (12,400–12,000 calibrated years BP) Hilazon Tachtit Cave, near the Sakhnin (Lower Galilee, Israel). She lived in a Natufian community, was gracile, quite elderly (ca. 45-year-old), and about 1.5 m tall. The woman had unusual physical characteristics, probably congenital malformations due to a life-long spinal disability that very likely caused her to have an unnatural asymmetrical appearance and led her to limp or drag her foot. This revered disabled woman had a burial which was unlike any other found in the Natufian context and was accompanied by exceptional grave offerings that included a complete human

726 Ginzburg C. 1989.

727 Ginzburg C. 2004.

728 Hyginus G. J. 1988, ii, p. 4; Dyer L. [1891] 2001, p. 8 concerning Icarus' contribution; Adrados F. R. 1975, p. 25; Eliade M. vol. I, 1976; Kerényi C. 1996, p. 4; Rist A. T. 1997.

729 Plutarch 1914; Lawler L. B. 1946; Temporini H., Haase W. 1992.

730 Lloyd S. 1956, p. 53; Lewis-Williams D., Pearce D. 2005, p. 159; Hodder I. 2006, p. 49.

731 Russell N., McGowan K. J. 2003.

732 Merlini M. 2011b.

foot from an adult individual. The archaeologists in charge examined historical records of shamans worldwide and established that in many cultures these persons – who are estimated as having access to, and influence on, the world of good and evil spirits – often possessed physical handicaps or had suffered from some form of trauma[733].

Anthropological evidence from the single isolated burial of Bad Dürrenberg (Saxony-Anhalt, central Germany) shows other interesting evidence for the Tărtăria case study. It is the only individual grave within the region. The 25–35 year old woman of the burial suffered from an anatomical variation that also included an atlar anomaly[734]. This developmental variation possibly caused neuropathological symptoms such as convulsions, perhaps similar to those typically induced in shamanic traces. Alternatively, her apparent epilepsy accorded special powers to her as a particularly influential shaman. In any case, the Bad Dürrenberg burial represents a unique case of an abnormal neurological condition and behavior interpretable in a shamanistic fashion in a European prehistoric context. The grave is amongst the richest and most unusual burials, in terms of grave goods, from the transition between the Late Mesolithic and Neolithic in Europe. It yielded fragments of mussels, the remains of tortoise shells, fifty pendants made from animal teeth, together with one piece of ochre, twenty-nine microliths, and two flakes in a container made of a long bone of a crane. There were also nine flint blades, one hammer stone, two worked and three polished boar tusks, five bone awls, twenty-four perforated boar and aurochs teeth, a perforated axe shaft of red deer antler, and a flat adze[735]. The last item originated in a LBK context and constitutes a major indication of contacts between the pioneers of this major farming culture in Central and Northern Europe and Mesolithic hunter-gatherers. Three C14-datings have been performed for the burial with the results 7930 ± 90 BP (OxA-3136), ca. 6850 CAL BC, 7730 ± 90 BP (Bln 2221) and 7580 ± 80 BP (Bln 2130). The animal species present in the grave were not all food supplies for the beyond. Ethnographic parallels suggest that they may be explained as items used in shamanistic practices. Porr and Alt argue that the unique abilities of the woman may have given her respected supernatural authority and that grave goods perhaps reflect her status in this realm[736].

Gronenborn regarded the burial of an adult woman at the Samborzec settlement as the grave of a shaman at the transition from the Mesolithic to the Neolithic. According to the Mesolithic mortuary practice, it yielded necklace of animal teeth (that perhaps indicates the adoption of an totemic identity), and bone beads positioned in the pelvic region, probably the remains of a belt[737]. On the other side, the earth around the deceased's head was sprinkled with red ochre, as in the Körös–Starčevo habit of early Balkan farmers[738].

The vision proposed by M. Budja of prominent shamans of the Danube gorges who exercised control through the agency of altered states of consciousness and supernatural potency, and manipulated others through prestige and power[739], is a misinterpretation of the archaeological record. In sharp synthesis, a) comparing the recognition in literature concerning the role played by persons with disabilities, in particular with a limp, in religion and rituals with the analysis of the distinct human remains from Tărtăria belonging to an individual who needed the support of the community for decades, and b) considering the occurrence of a ritual pit and its cultic context with associated emblematic and unique artifacts including three inscribed tablets, one can argue that the Transylvanian burial is consistent with expectations for a grave of a shaman-woman, priestess, or dignitary-woman[740]. The word shaman derives specifically from the Tungus culture of Siberia for figures skilled at generating and communicating meaning and images during a trance[741]. However, many scholars utilize the term as a robust cross-cultural pattern in its broadest sense, indicating professionals that mediate between the human and the spirit worlds in hunter-gatherer and small-scale farming societies world-wide[742]. We prefer to refer to the special individual buried in Transylvania as "Milady Tărtăria," indicating her as a "terrific and revered holy

733 Grosman L. et al. 2008; Munro N. D., Grosman L. 2010.
734 Porr M., Alt K. W. 2006.
735 Bicker F. K. 1936; Geupel V. 1973; 1977; Gramsch B. 1973; Newell R. R. et al. 1979; Brather S. et al. 2009, p. 20.
736 Porr M., Alt K. W. 2006.
737 Kulczycka-Leciejewiczowa A. 1988, p. 176.
738 Gronenborn D. 1999, p. 8.
739 Budja M. 2004, p. 73.
740 For a distinction between shamans, associated with hunter-gatherer societies, and priests, generally associated with agricultural societies, as well as the possible occurrence of shaman-priests who combine traits of both, see Van Pool C. S. (2009).
741 Michael H. N. 1963; Balzer M. M. 1996; Hayden B. 2003, p. 46–87.
742 Nicholson S. 1987; Eliade M. 1988; Hayden B. 2003; Grosman L. et al. 2008.

woman"[743] who had a connection to the superpowers who control things humans cannot, striding across the gap by means of limping between life and death, one foot in each world. She had therefore a pivotal role as a ritual specialist in an inclusive community capable of only moderate formation of leadership and policy[744]. If we have evidence that her formalized role was to achieve the ritual obligations of tending to the religious needs of the community and connecting it with the otherworld, we cannot know if she used shamanic techniques such as hallucinogens and altered states of consciousness for ecstatic journeys to the afterlife, returning from there with a totem animal as her spirit helper.

Even in the Middle Neolithic of Southeastern-Central Europe, people were 'enchained' through their genealogy[745]. At Tărtăria, the number of elderly people (women) would have been very low. As an aged ritual specialist with many social relations, Milady Tărtăria may have been the only physical link between family/corporate group/community and past events as well as future expectations. This occurred within a newly and unsettled literate context that exploited signs mainly for liturgical purpose. As one of the oldest members of a mid-scale settlement, and capable of dealing with magical signs, she may have provided the only available connection to the ancestors, elucidated common roots, and narrated past episodes. Her importance did not lie merely in her ability to illuminate questions about the relationship between past and present, but in her physical embodiment of this linkage as an interconnected entity within a temporal and genealogical network.

Additional cases of Middle Neolithic individual burials of revered magic-religious adepts

Current research on coeval skeletons and burials from the Middle Neolithic is offering individual portraits of some ritual specialists comparable with „Milady Tărtăria" and her mortuary program of individual re-deposition. Archaeological evidence and literary references point to some analogous features from the possibly secondary deposit of bones belonging to a single individual that was discovered on the shore beyond Franchthi Cave (Argolid, Greece). Here a Middle Neolithic burial yielded a 39 – 40 year old woman (Fr 59) whose scattered skeleton was put into a pit probably through a secondary burial[746]. The grave goods found with her were mainly tools and were exceptional compared to the ones found on the same site: a complete well-worn and mended carinated monochrome pot, six worked bone points, three obsidian blades, and possibly a burin spall of obsidian[747]. The stock may have been her personal possessions. In particular, the bowl appears to have had a substantial life-use before becoming a burial good, which is evidenced by mend holes near the rim[748]. The type of tools in the burial and their exceptional number (eleven) may indicate that she had some "special" position in the community as a craftsperson. The anthropological examination of the remains and the woman's skeletal pathology (the considerable wear of the incisor) suggested thread biting and spindle holding, all activities connected to spinning and weaving[749]. The pathological evidence connected with the hands and the shoulders indicates the woman may have been a potter. Consistently, it was advanced that the grave goods found with her represent a pot-making tool-kit or a portion of one[750].

The hypothesis is based on Vitelli's statement that potters during the Early Neolithic, and possibly the Middle Neolithic, may have been more than just artisans. The transmutation of clay to pottery may have been perceived as an active participation in the natural transformation processes, such as the changing of the seasons, day to night, and life to death. Knowledge of transformative ceramic technologies is associable to the esoteric expertise of shamans. Thus, Vitelli proposes that early pottery making was not only a prestigious task, but also the secret and sacred skill of a few individuals, and that potters may have acted as shamans[751]. K. D. Vitelli supports her interpretation noticing that several highly decorated saucers and plates show evidence of burning incense or narcotic substances inferring from this evidence that these early ceramic vessels were produced for, and used in, shamanistic public occasions and ceremonies. Vitelli also asserts that these vessels were probably made by female potters-shamans

[743] Merlini M. 2006a.
[744] Merlini M. 2004a, p. 289, 2006; Lazarovici Gh., Merlini M. 2005, p. 208–209; Merlini M., Lazarovici Gh. 2008.
[745] Appleby J. 2010, p. 47.
[746] Jacobsen T. W., Cullen T. A. 1981; Perlès C. 2004, p. 66.
[747] Vitelli K. D. 1993, p. 70.
[748] Fowler K. D. 2004, p. 28.
[749] Angel n.d.; Smith S. K., Cook D. C. 1991.
[750] Fowler K. D. 2004, p. 29.
[751] Vitelli K. D. 1999, p. 100.

who had the initiatory knowledge of both ceramic technology and medicinal and narcotic properties of plants to produce relief from pain and altered states of consciousness[752].

The Franchthi remains do not illustrate unequivocally a secondary deliberate deposition after a ritualized selection of skeletal remains.[753] In addition, the inference of the deceased's occupation from the funerary equipment is quite speculative[754], and pathological indicators suggest that she might have been both a weaver and a potter, i.e., that professional specialization and social differentiation were minor. Nonetheless, evidence indicates a high amount of energy expenditure and a ritualized selection of a lavish group of useful objects that such a special dead individual possibly utilized while alive. The unique attributes of this woman's mortuary treatment circumstantially support the assumption that she was a shaman[755], although this recognition of potters is based on a loose definition of 'shaman' as someone who practices ritual or symbolic actions known only to a restricted portion of the society. In this case, the artisans who by chance discovered a new technique can be defined as shamans simply because they did not understand at first the processes of ceramic production and kept them secret, probably supposing the intervention of supernatural forces[756].

Great caution concerning the identification of the woman from Franchthi as a ritual specialist (as a 'shaman' in the above weak definition) is generally taken due to the common supposition that this burial is "the only burial of its kind in the entire Neolithic period"[757]. However, the highly comparable mortuary data and burial program with Milady Tărtăria support the hypothesis that both might have acted as magic-religious practitioners.

Another ritual specialist coeval with Milady Tărtăria (5300 – 5210 BC)[758] might be indicated in the LBK culture. The burial 15/75 from Vedrovice – *Siroká u lesa* (Moravia, Czech Republic) yielded male remains (DNA T2 LUP) with an unusual burial position. The person was of local origin and remained in the area until his violent death when he was 40–45 years old[759] or in his early 30s[760]. Someone delivered a crushing blow to his head. The skull was then subjected to trepanation at the point of the wound: a quite sophisticated example of early surgery. However, it seems that he suffered pains until he died: he was laid to rest on his left side and hands placed close to his temples as if to relieve the torment[761]. The rich grave equipment included a jug and a bowl that were probably his eating and drinking vessels in life. It comprised also personal adornments such as spondylus shell pendants and bracelets from the Mediterranean Sea, marble beads, two pair of stag teeth, and four perforated deer teeth. Some tools accompanied the dead: a stone adze imported from the Bohemian Massif or Western Carpathians or the Balkans, a flint blade from the Krakow Jura, a stone tablet, and two grinding stones. A large amount of red ochre was recovered around his upper body and under his skull[762]. M. Zvelebil and P. Pettitt concluded that the deceased was a ritual specialist[763].

In the settlement at Slavonski Brod – *Galovo* (Croatia), residential pit-house 37 and small burial pit 15 were possibly connected, and both belonged to the most recent Starčevo-Criș (Körös) phase of this area of the settlement, dated to approximately 5300 to 4960 CAL BC. In the pit, a 35 – 40 year old man was laid to rest in a contracted position with head toward the north and legs toward the south. The face is not present as only the rear skull bones were found[764]. The skeleton was covered by soil mixed with fragments of fine painted and coarse pottery, animal bone remains, and over 100 pieces of stone of various shapes and uses. Above the skeleton, clay disks with holes in the centre, two in a pair, were found. A clay duck's head was discovered approximately 30 cm above the skulls remains as well as six small sacrificial footed bowls[765]. A group of six polished and unused stone axes and wedges of varying sizes were recovered on the western side of the entry stairs, marking the occurrence of an axe cult. These types of items, next to

752 Vitelli K. D. 1993, p. 213–219; 1999, p. 184–198.
753 Cullen T. A. 1999, p. 168–169. According to other scholars, it was a primary intramural burial (Talalay L. E. 2000, p. 11).
754 Talalay L. E. 2000, p. 11.
755 Fowler K. D. 2004, p. 29.
756 Vianello A. 2005, p. 3.
757 Fowler K. D. 2004, p. 29.
758 Zvelebil M., Pettitt P. 2008. It is dated 5600–5400 BC, according to Kruta V. and Humpolova A. 2009.
759 Podborský V. 2002, p. 23–26, fig. 15. 9–11.
760 Zvelebil M. and Pettitt P. 2008, p. 26.
761 Zvelebil M., Pettitt P. 2008, p. 26.
762 Podborský V. et al. 2002, p. 264, obr., 15 a, b and tab. XVI.
763 Zvelebil M., Pettitt P. 2009.
764 Minichreiter Kornelia 2000, fig. 5.
765 Minichreiter Kornelia 1998–1999, p. 7–15.

the deceased in a burial pit within dwelling 37 where his family lived, may indicate his distinguished position in the tribe. This is further confirmed by his occurrence as the only single individual buried in the pit-house. The interment of a faceless man may have been prompted by the belief that his dangerous or 'queer' power over other tribe members had to be eliminated in this manner, assuming that he was a tribal leader or shaman[766].

Michel Louis Séfériadès points out the miscellany of objects often associated with Spondylus artifacts recovered from inland sites such as Dikili Tash in Greece, Omurtag in Bulgaria, Sultana "Malu Roșu" in Romania, Giurgiulești and Cărbuna (Karbuna) in Republic of Moldova (Bessarabia), and Csoka – Kremenjak in Hungary. They are variously called by archaeologists "treasures", "deposits" and "magic-kits"; even "tool-kits" and can be regarded as ritual accessories of shamans, and sometimes elements of the costume of a shaman[767].

At Tărtăria, as well as in the compared Middle Neolithic burials, preparation and treatment of the body, typology of grave goods, disposal program, and high levels of energy expenditure to accomplish these tasks reflect a deceased that was a magic-religious adept with an elevated social position within an inclusive Middle Neolithic community.[768] If the evidence mentioned above on ritual behavior is sufficient to individuate Milady Tărtăria as an esteemed religious specialist, there is no basis to suggest that her high hierarchical social position was established upon hereditary status, wealth or institutional power. There is no substantial documentation about the social organization of the Tărtăria settlement to assess a rank grading analysis. The mortuary data alone do not provide any independent evidence concerning the occurrence of "vertical" status based on wealth and power such as institutional elite or the ascription of hereditary rank[769]. The scenario of the magic-religious funerary complex is explicable as collective recognition of a person with exceptional spiritual power whose social esteem and responsibility were largely a result of individual achievement ("horizontal" status differences). This acknowledgment acted in tandem with practices considered appropriate to religious concerns about afterlife, ancestors' realm, and their obligations and responsibilities relating to the living community[770].

Handling of the corpse and disposal program

The post-mortem treatment of Milady Tărtăria body is an open window on the visceral corporeality of the Neolithic existence. The funnel shape and extent of the pit (31–40 cm high × 40 cm in diameter) indicate that the custom was not the placement of an entire corpse into a *burial,* but the packed deposition into a pit-grave of *part* of the disarticulated skeletal remains *after the defleshing* process.

The deceased was given primary treatment, celebration, and burial. Postmortem handling and processing of the corpse would have been a demanding task in both an emotional and organizational sense. Since there are many possible methods to accomplish this task, it is impossible at this stage of the research to say how this portion of the disposal program was executed. However, an absence of cut marks or other forms of bone modification indicate that the corpse was probably not dismembered before the decomposition was complete. The corpse was allowed to decompose in a place for that purpose. Removal of soft tissues with a cutting tool was not necessary. Of course, we do not know how much time was necessary for the flesh to decompose; this depends on the season, contextual features (e.g., characteristics of the soil), and cultural norms. We cannot determine if the length of the intermediary period was prolonged by several factors, such as the necessity to accumulate a surplus to conduct the feast connected to the re-interment[771]. However, from the absence of cut marks related to the removal of the last traces of ligaments through careful scraping of the skeleton remains, one can infer that the lapse of time was enough for the bones to become dry and free of decaying flesh via natural putrefaction.

The separation of flesh and bones by rotting put Milady Tărtăria's corpse to rest and allowed her spirit to leave the material world[772]. It was a problematic and apprehensive step of discontinuity in a multi-event process aimed at supporting the esteemed deceased to undertake the passage from the world

[766] Minichreiter Kornelia 2006, p. 13.
[767] Séfériadès M. 2009, p. 187; Lot-Falk E. 1953.
[768] For the high correlation between the amount of energy expenditure in mortuary treatment and social position of the deceased in a community – even if only certain forms of energy expended on funeral activities and disposition of the body consistently indicate the social rank of the dead – see Tainter J. 1975; 1978, p. 121, 126–128; McGuire R. H. (1992); Carr C. C. 1995, p. 165.
[769] Fowler K. D. 2004, p. 66.
[770] Fortes M. 1953, p. 31; Hertz R. 1960; Huntington R., Metcalf P. 1985.
[771] Hertz R. 1960; Miles 1965; Metcalf P. 1981.
[772] This process was well analyzed in other cultures by Hertz R. 1960, p. 86; Thomas J. 1999, p. 136.

of the living to the land of the ancestors. As evidenced by anthropological and ethnographic evidence, during this intermediate phase, a cadaver suffers putrescence and formlessness, until only dry, white, hard and imperishable bones remain. If bone and flesh are complementary in the living human body, they become in opposition after death. The cadaver occupies a liminal state between that conjunction of bone and flesh that is considered „life" and the separation of these substances through "death"[773]. A corpse that is still fleshed represents a conceptual anomaly, and is neither alive nor finally dead. Its condition is unstable, dangerous and polluting[774]. During this period called „intermediary" by Hertz[775], the fate of the spiritual component of the human being is modeled on the fate of the body: the soul needs time to convert itself into a spirit worthy of the land of the dead, even as the corpse needs time to become a dry skeleton. When the decaying cadaver is formless and repulsive, the non-material component of the dead person cannot reanimate the body, nor can it gain admittance to the society of the dead. Therefore, it is miserable, homeless and wandering. It leads a pitiful existence in unfamiliar spirit regions or in the environs of human habitation, near the decomposing corpse[776]. In its discomfort, the spiritual component of the dead person demands care and is commiserated by the survivors. However, it is liable to maliciously and vindictively inflict misfortune or sickness upon the living[777]. The sterile, dry bones must take dominance over the decaying vitality of wet flesh.

It is not difficult to imagine that at Tărtăria even the respected magic-religious practitioner – who when alive supported the community for a long time – had to suffer the horrible fate of the in-between period. Therefore, elaborate observances were required to divert the possible hostility of Milady Tărtăria and to placate her aggressiveness. A series of mourning rituals may have drawn attention to the continuing and ambivalent presence of both the rotting corpse and the hovering spiritual component of Milady Tărtăria. The corpse and the non-material component of Milady Tărtăria were the object of fear, as well as of solicitude and protection[778]. The magic-religious powers that she had when alive inspired fear in the survivors, but these powers would be available to them for positive purposes if her spiritual metamorphosis was successfully achieved. The community needed to obtain benign support from the ancestors in order to replace the potential malice of the recently deceased, to assure her transformation into an ancestor.

After the corpse had decomposed, the bones were collected. If one accepts Kuijt's indications concerning MPPNB, this process was undertaken/witnessed by household members, ritual practitioners and the general community[779]. Analyzing a two-stage burial in the contemporary Inner Mani communities, Seremetakis suggests that the re-encounter with the dead person through exhumation of the bones after 3–5 years is intended to bring them back, in a new and alien form, into the world of the living[780]. These ancestors are recently departed individuals and they belong to families who welcome them back through small-scale and intimate disinterment of what Hertz termed "the new body of the dead"[781].

Secondary burial rite and feasting for the new body of the dead

After exhumation of the already purified white skeletal remains of Milady Tărtăria, procedures for secondary deposal started, i.e., the intentional and socially sanctioned recovery, manipulation, and reburial of human osseous remains into a permanent resting place[782]. In particular, a portion of the bones was selected, fragmented and gathered for secondary disposal. Selective placement of disarticulated, incomplete and broken bones is characteristic of secondary internment[783], even if it is not sufficient in itself to define a re-deposition. There is also the risk that some of the skeletal remains have been left behind during the archaeological excavation. In 2004, Georgeta Miu has applied anthropological expertise to search for a rationale in the fragmentary selection of the bones[784].

773 Metcalf P., Huntington R. 1991, p. 115.
774 Van Gennep A. 1960; Douglas M. 1966; Metcalf P., Huntington R. 1991, p. 34.
775 Hertz R. 1960.
776 Metcalf P., Huntington R. 1991, p. 90.
777 Hertz R. 1960.
778 Metcalf P., Huntington R. 1991, p. 94.
779 Kuijt I. 2008, p. 175, fig. 2.
780 Seremetakis C. N. 1991, p. 188.
781 Hertz R. 1960.
782 Metcalf P., Huntington R. 1991, p. 97; Schroeder S. 2001, p. 77. For the utilized terminology, see Sprague R. 2005.
783 Hertz R. 1960; Harrisson B. 1967, p. 167; Quigley C. 2001, p. 251; Kuijt I. 2008, p. 175, fig. 2.
784 Lazarovici Gh., Miu Georgeta 2004.

Due to the 'closed' nature of the burial context, the fragmentation of the bones must have occurred before the secondary deposition. We have therefore to grasp the family/community reactions to the dead and the meaningful and expressive criteria that motivated the re-placement of the corpse through a process of secondary and partial interment into a sacralized space[785].

Primary and secondary mortuary practices were possibly linked and perceived by their performers as parts of a broader belief system and a liturgical chain[786]. Probably two funeral rites have been performed. The first began immediately after the death of the admired ritual practitioner and had as a hub the deposal of her cadaver for temporary storage. The ritual performed during the re-burial commemorated the transfer of the remains to their final resting place and properly conducted Milady Tărtăria from the community of the living to the community of ancestors.

If one follows Krum Bačvarov's suggestions about Bulgarian Neolithic reburials as the conclusion of a two-stage process of post-mortem body handling[787], the Transylvanian re-deposition might have been based on some kind of public rite of devotion or initiation performed while accommodating three kinds of items in the pit-grave. These were a selection of the fragmented bones, the core part of the grave goods after being ritually broken, and the inscribed tablets kept as the only complete items. The key aspect of this mortuary tradition is that the deceased is not considered properly buried until a second ceremony of interment is held after the appropriate treatment of the cadaver.

In the early Vinča community at Tărtăria, this process seems to comprise the sorting of the skeletal remains, the fragmentation of the relics, the beautification of them, and the removal of one or more parts of the body. This vision of the ritual is reinforced by the identity of the deceased as a revered magic-religious adept. The main tasks of the ritual performed during the re-burial may have been to give specific instructions to Milady Tărtăria as to how to prepare for the journey to the land of the ancestral dead and how to make it[788]. In this way, her spiritual component would be conducted along the path to the residence of the ancestors.

A window on the emphatic, complex and energy/time consuming ceremonies performed during the reburial is suggested by a scorched animal bone that was mixed with the human skeletal remains[789]. Animal and human bones might have been placed together during the secondary inhumation process, possibly in relation to a feast – the consumption of a large communal meal within a socially constructed setting – and rituals concerning the commemoration and worship of a person who possessed some special and/or secret knowledge. Feasting was part of a high-profile public ceremony in association with ritual activities located in a special setting, as we document below, aimed to activate community integrative mechanisms. It can therefore be viewed as a spiritual and symbolic act with social, political, and personal meanings[790]. A feast required significant energy and time investment as the socially significant event of Milady Tărtăria's reburial. It likely served a vital role in the sharing of ideologies, negotiation, and solidification of social relationships, the integration between communities, and the mitigation of scalar stress among the community members that coalesced[791]. Inclusion of animal bones at this stage of the mortuary program is another typical indicator of a re-deposition.

Secondary human burials are connected with beliefs relating to *rites de passage* that the deceased has to undergo after the separation from life in order to achieve incorporation into the world of the dead traveling through the phases of separation, segregation, and integration[792]. According to a rich body of ethnographic data recording the connections between secondary burials, ancestor worship, social memory, and identity, the re-deposition is often portrayed as a joyous occasion, a time for celebration, not grief, as in the first interring ritual[793]. This happens when death is negated by the symbolic rebirth into the eternal collectivity of the ancestors[794]. Weiner indicates these events as „moments of spectacular visual communication"[795].

[785] Viz. Huntington R., Metcalf P. 1979, p. 1.
[786] Kuijt I. 2008, p. 175.
[787] Bačvarov K. 2003.
[788] See Metcalf P. 1982, p. 190–230 concerning other cultures.
[789] Lazarovici Gh., Miu Georgeta 2004; Merlini M. 2009c.
[790] Kuijt I. 2008, p. 175.
[791] Hayden B. 1996; Dietler M., Hayden B. 2001; Hayden B. 2001.
[792] Hertz R. 1960, p. 86; Van Gennep A. 1960; Turner V. 1969.
[793] Bloch M. 1982, p. 214, 216; Kan S. 1989, p. 192, 296; Wiessner P., Tumu A. 1998, p. 21–22.
[794] Larsson Å. 2003, p. 164.
[795] Weiner A. B. 1976, p. 61.

To sum up, the „great feast"[796] was an intensely communal affair that terminated the miserable liminal period. Guests were possibly summoned from far and wide to attend. The communal meal provided an opportunity for renewed contact with the sacred dead and gave a moment of consummate glory to the individual identity of the holy woman during which her magic-religious skills and successfulness were remembered. The public ceremony honored her now dry bones mixed with fragments of emblematic artifacts and confirmed that the ritual was properly conducted in order to guarantee the arrival of her spiritual component into the land of the ancestors. Finally, the great feast activated the benign influence that the new ancestor had to exercise upon its descendants[797]. Consistent with the magic-religious system of the Vinča A culture and its mytho-logic, the mortuary procedures at Tărtăria excluded the belief in a disembodied soul, disconnected from the people currently alive[798]. The Transylvanian rite of re-burial was linked with eschatological beliefs, related to the ritual tasks of the living, in order for Milady Tărtăria to be safely transformed[799]. She continued to operate successfully (in another form and with enhanced powers) among the society of the living, bridging it with the sphere of the dead in order to give direction to events and to act on them.

In addition, the secondary burial of Milady Tărtăria and related feast constituted a conduit for collective memory and reaffirmation of community identity and membership[800]. It served as a public marker to affirm that the threat of the unquiet and potentially dangerous dead was passed, and the powerful magic-religious practitioner was reintegrated at a higher level within the community. The sacredness of the moment and the genuine festivity allowed the participants to restore normal relations among the survivors and to reconstruct the social order after the dramatic event of her death. The long transitional period had transformed her into an ancestor, conceived as a sort of guardian spirit[801]. The final deposal gave an occasion to bring about meaningful practices that were apt for individuals and groups to reassert and renegotiate their identities, smoothing conflict management and competition, and to reassert their visions for the future of the community[802]. Therefore, the final funeral ceremony was possibly scheduled at a prearranged time that did not conflict with other collective tasks such as, for example, the harvest[803], and to facilitate participation in an event that crosscut kin, generations, and household lines[804].

A LITERATE GRAVE

Any strict connection between funerary equipment and individual identity is contentious and associated with the "materialist-ecological view"[805] that dominated American archaeology up to the early 1980s and was put under criticism by post-processual archaeology[806]. However, the interpretation of Milady Tărtăria as a magic-religious specialist with a key role in her community is confirmed by typology, quantity and treatment of the funerary goods. A specific paragraph of the present book is devoted to the analysis of the evocative objects belonging to the ritual-funerary complex.

Carr's survey of cross-cultural ethnographic data correlates the typology of grave furnishings at most with the personal identity of the deceased, and in addition with its gender and vertical social position. It documents the quantity of grave goods to be determined most commonly by the deceased's ranking and age, even if it cannot be taken as a strong indicator of its vertical social position. That is more likely explained by the overall amount of energy expended on disposing of the body, grave construction, and type of grave furnishings[807]. This pattern supports Tainter's survey result[808]

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796 Hertz R. 1960.

797 Hertz R. 1960.

798 Hertz R. 1960, p. 86; Cederroth S. et al. 1988; Taylor T. 2002.

799 Helms M. W. 2004.

800 Kuijt I. 2008, p. 186.

801 Downs R. E. 1956, p. 31–2.

802 E.g., Weiner A. B. 1976; Feeley-Harnik G. 1989; George K. M. 1996; Kan S. 1989; Metcalf P., Huntington R. 1991; Schiller A. 1997.

803 Hertz R. 1960; Metcalf P., Huntington R. 1991.

804 Downs R. E. 1956; Hertz R. 1960; Hudson A. B. 1966; Metcalf P., Huntington R. 1991.

805 Carr C. C. 1995, p. 114.

806 In the paradigm driven by social organization, the intentionally deposited goods in the grave have often been seen to reflect an image or to symbolize the dead individual's social persona. According to Saxe A. A. (1970; 1971), Binford L. R. (1971), and Brown J. A. (1971), the wealth in graves corresponded to the deceased's social identity and position in life. "Status was most commonly symbolized by status-specific 'badges' of office and by the quantities of goods contributed to the grave furniture" (Binford L. R. 1971, p. 23). This statement was strongly critiqued within post-processual archaeology (Hodder I. 1984; 1990; Thomas J. 1991; 1999; Morris I. 1991).

807 Carr C. C. 1995, p. 178–180; Carr C. C., Case D. T. 2005, p. 276.

808 Tainter J. 1975; 1978, p. 12.

that social rank is infrequently reflected by the mere quantity of grave goods[809]. In Tainter's model, the status of the deceased is symbolized much more often by other mortuary customs. In particular, it is reflected by the measurable communal effort and energy expenditure invested in the mortuary practices and rites.

Both of these surveys covered a large number of societies of diverse social complexity and agricultural intensity, but they did not intercept the farming and pastoral Neolithic societies that would be positioned between the "complex hunter-gatherers having substantial leadership positions" and the "horticultural tribe with head man"[810]. Concerning the Transylvanian case, we have enough elements to identify the grave goods as belonging to three typologies: a) liturgical tools utilized by Milady Tărtăria while alive (three inscribed tablets, human statuettes and a high-pedestal bowl); b) emblematic personal adornments (a pendant-amulet and a *Spondylus gaederopus* armlet); and c) her funerary anthropomorphic marks (a female figurine). From the aforementioned data, it is inferable that the grave furnishings served as a mark that the elderly disabled woman held a unique position in the community, but are not utilizable as a signal of rank.

The most significant funerary goods are the inscribed tablets. The archaeologist in charge made note in the excavation report that one tablet "bears a (hunting?) scene, and the two others extremely curious signs placed on several registers". He interpreted the signs incised on rows on the tablets as "a rudimentary writing . . . at least the rudiments of an ideographic notation"[811].

If the ritual artifacts were intentionally broken then buried in the pit-grave, the three inscribed tablets were the only objects left intact and interred as complete items. In the Danube civilization, there are cases of deliberate breakage of artifacts with signs, and their circulation denoted some form of social relationship[812]. Objects were broken in particular places because the signs were present at those places. In addition, a pattern of multiple ceramic fragmentation of vessels was in use: in the first stage, the inscribed artifact was broken, while in the second stage the part of it with signs was itself broken. The breaking of the shards happened across the signs[813]. Not aware that the script occurred in previous cultures, Chapman stated that the ritual link of individuals or households through fragmentation of incised signs was an important innovation of the Vinča culture[814]. Conversely, at Tărtăria the inscriptions might have been considered inviolable, inhibiting the breakup of the tablets. The instance of the Transylvanian tablets emphasize the practice of depositing complete special finds when they bear a sequence of sacred and magical signs that was recognized as a carrier of apotropaic powers by the believers, independent from the capability to read them. Even if some of the descendents of Milady Tărtăria had not been able to understand the semantic meaning of the inscriptions engraved on the tablets, they may have interpreted them as "deposits" representing superhuman powers activated through magic-religious rituals. Fixing formulas onto matter made the liturgy "perfect." The codified act of ritually tracing distinctive and sequential marks obliged the miraculous powers to be attentive, triggered divine manifestations or interventions, maintained communication with the supernatural sphere even after the conclusion of ceremonies, and endorsed a contract between human and superhuman beings.

The Tărtăria tablets provide evidence that the *Danube script* – the archaic, essentially logographic system of writing (not capable of encoding extended speech or long narratives because phonetic elements are not rendered) developed by the Danube civilization – had mainly a sacred nature and was employed in liturgies to express magic-religious beliefs. Even if profane functions of signs or/and pictograms incised on pots are not denied, the Danube script was not primarily used for commercial transactions or for recording administrative documents, but for ritual purposes[815].

The burial procedures that occurred at Tărtăria are not the only case in which writing technology was ritually connected with the deliberate interment of artifacts and other materials associated with

[809] Carr C. C., Case D. T. 2005, p. 331. Carr's statement that quantities of grave furniture rarely indicate the vertical social position of the deceased is turned by some scholars into the unreliable reference that, according to him, ranking tends not to relate to quantity of grave goods (Bacus E. A. 2006, p. 108).

[810] Carr C. C. 1995, p. 126.

[811] Vlassa N. 1962, p. 26–27; 1963, p. 492.

[812] Chapman J. C. 2001.

[813] Chapman J. C. 2001, p. 226.

[814] Chapman J. C. 2001, p. 233.

[815] Gimbutas Marija 1991; Haarmann H. 1995; 2005; 2008; Merlini M. 2001; 2004; 2005; 2007; 2008; 2009b; 2010; Merlini M., Lazarovici Gh. 2008; Marler Joan 2008; Winn S. 2008; Luca S. A. 2009; Marler Joan, Robbins Dexter Miriam 2009; Maxim Zoia, Marler Joan, Crișan Viorica 2009.

a dead person. For example, in the previous developing stage of the Vinča culture, sacred signs were employed at Mostonga (Republic of Serbia) on the valve of a *Spondylus gaederopus L.* that was positioned as an intact item on the pelvis of a deceased deposited in contracted position. The signs have been interpreted as constellations meant to escort the dead through the beginning stage of the afterlife journey[816]. The likeness between the possible asterisms in the Spondylus engravings and some of the signs from the rounded and the holed rectangular tablets from Tărtăria poses questions about the nature of the inscriptions deposited with Milady Tărtăria and the role of the script in burials of "special" persons.

The liturgical tool-kit among the grave goods

Concerning the other liturgical paraphernalia, one can observe that most of the artifacts from the ritual pit-grave belong to cults related to virility, fertility and fecundity, their sovereign mysteries and female hypostasis. Most of the grave goods are human statuettes. Gh. Lazarovici and M. Merlini have identified six figurines belonging definitely to the pit-grave[817]. Each has a distinct shape and wears an elaborate mask that possessed, impersonated, and conveyed its resident power during ceremonial rituals. It might express a mythological creature, a human or totem ancestor, a divinity or another being possibly believed to possess mastery over the living. Some of the figurines are painted with red ochre.

The singular features of some figurines pose stimulating questions concerning Milady Tărtăria's "ritual specialization". As I have analyzed in chapter VIII3, two statuettes show a phallus-like shape with accentuation of a plastically modeled masked face over the glans. One of these figurines shows a single protruding breast and emphatic buttocks divided by a deep vertical split. This female figurine in phallic shape expresses clearly the encounter of the male-female duality in the same body, not as a clay hermaphrodite with male and female genitals (breasts and phallus),[818] but as female attributes over a phallus shaped body.

Fig. VIII.1. Plastically modeled masked face over the glans on the big phallic figurine.

Fig. VIII.2. Single breast on the big phallic figurine.

Fig. VIII.3. Emphatic buttocks divided by a deep vertical split on the big phallic figurine.

Two figurines exhibit a hole intentionally positioned on the far lower area of the mask or under it, upon the chin, resembling an opening mouth. On a third statuette, the craftsman started to drill a hole on the far lower area of the mask, but then changed his/her mind and the orifice is only a hint. What is the reason for the presence in a ritual grave of speaking, singing or mourning figurines?

The masks of three statuettes are asymmetrical towards the left. Was their disfigured shape a conscious representation of unusual mythical personages? In the ethnographical record, masked and deformed figurines occur that, employed in ceremonial rituals, depict mythological beings, the spirits of dead ancestors as well as other creatures believed to possess supernatural power. Alternatively, was the deformation of the Tărtăria figurines the result of malevolent actions made during archaic rituals that nowadays are considered of "sorcery" and "black magic"?[819]

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816 Karmanski S. 1977; Séfériadès M. 2003, p. 366; Siklósi Z. 2004; Merlini M. 2009b.

817 Merlini M., Lazarovici Gh. 2008; Merlini M. 2009c.

818 See for example the Late Neolithic (Karanovo III–IV) hermaphrodite from Kapitan Dimitrievo (Bulgaria). It is held at the Historical Museum of Pestera, Bulgaria.

819 Fl. Drașovean collected a series of twisted and mutilated Vinča artifacts, mainly figurines, that he interpreted as representing "black magic" rituals (Drașovean Fl. 2005).

After a revision of the material from the Tărtăria excavations[820] and checking the register recording the collection of the museum, Gh. Lazarovici and M. Merlini discovered that the inventory registers shards from a Vinča A3 high-pedestal bowl among the finds from the ritual pit-grave. The vessel to which these potshards belong was very much used during its life and then intentionally and ritually fragmented. It was possibly the cup employed during the ceremony and feasting performed after the death of Milady Tărtăria or acted to celebrate her secondary burial. After the vessel was broken, some of the shards were interred with the skeletal remains while other shards may have remained within the community.

The social life of Milady Tărtăria's paraphernalia for worship had two phases: before and after her death. While she was alive, they were utilized as ritual tools and were possibly surrounded by taboos as sacred items. This is evidenced by the unusual compound generated by the possibility of overlapping the rectangular and circular tablets that both bear a round hole and are divided into cells. They were worn or hung, one over the other, and the resulting combination may have created a relationship of overt (seen) and esoteric (hidden) signs (i.e., the signs on the upper register of the circular tablet would have been covered).

After the death of Milady Tărtăria, the paraphernalia (not the tablets) were intentionally broken, possibly during the early steps of the mortuary treatment or when the skeletal remains were interred in the ritual pit-grave. Only a small part of the liturgical equipment was deposited inside the pit-grave. Most of the bones and remaining items may have been distributed among the descendents who shared a common heritage.

RE-BURIED WITH HER 'JEWELS'

If we add to the list of the funerary goods a grey with a yellow angoba, quite refined pendant-amulet resembling horns of consecration, we are in the presence of a ritual pit-grave with religious motivation linked to vitality and sexuality. The minor wear on the hole for suspension indicates that the pendant-amulet was worn (by Milady Tărtăria?) for only a short period.

Another emblematic personal artifact able to create a more lively biographic picture of Milady Tărtăria is a *Spondylus gaederopus* armlet that was deeply worn (by her?) as an ornamental band around the upper arm. Some authors suggest that arm rings were conferred to an individual at childhood and worn permanently until death[821]. However, the diameter of the children's armlets was very small. Probably, during an initiation ceremony in late childhood these small pieces of jewelry were broken and substituted by larger ones, again continuously worn thereafter. The adult identity of Milady Tărtăria was possibly embodied by feeling and observing the arm band made of non-local *Spondylus* becoming even tighter around the arm, and then loosening as muscle substance decreased in elderly age[822].

Fig. VIII.4. Female figurine with copper armlet and pictogram from Durankulak (Bulgaria). (Courtesy F-MUSEUM project 2009).

How was the armlet worn by Milady Tărtăria? An upright female statuette with a pictogram on the breasts that was discovered in an empty grave (*kenotaph*) at the prehistoric necropolis of Durankulak in Bulgaria (4550–4450 BC) has a copper bracelet around the left rectangular arm, showing how this jewelry was worn[823].

[820] The Neolithic site at Tărtăria – *Groapa Luncii* was discovered on 15 July 1906 by Endre Orosz and studied during four stages by various scholars.

[821] Nieszery N., Breinl L. 1993, p. 430; Nieszery N. 1995, p. 85; Stig Sörensen M.-L. 1997.

[822] Hofmann D., Whittle A. 2008, p. 294.

[823] Vajsov I. 2002, p. 257–266, Abb. 251; Todorova Henrieta et al. 2002, p. tab. 71, 17–18.

Fig. VIII.5. Female pregnant figurine with an armlet from Pavlovac (F.Y.R.O.M.).

A standing female figurine with an armlet on the right arm was unearthed at Pavlovac site (F.Y.R.O.M.), which is famous for its Neolithic blind statuettes[824]. The Pavlovac figurine is pregnant. A Vinča terracotta female statuette from Stublive site (Republic of Serbia) wears three armlets on the right arm[825]. For a discussion about how Neolithic populations put on different types of armlets, see Sofaer Derevenski[826].

The *Spondylus* armlet attests that Milady Tărtăria benefited from the long-distance trade and exchange that involved her Vinča community in a broad sphere of interaction. Besides, the Spondylus was revered and played a significant role in ritual activity due to the potential for producing hallucinogenic effects. *Food for the Gods*, it could have given out-of-body experiences to the mortals, helping them to achieve a more lofty plain of existence[827].

Milady Tărtăria's armring was broken down exactly in the middle through an abrupt action, possibly during the two-stage funerary ritual. Perhaps if the bracelet had remained intact she could not have carried it to the other World[828]. This case materializes the metaphor of Spondylus armlets as imbued by the tension between wearing it close to the body, and permanently as an ornament linked to the Otherness (the remote sea cost, the deep sea as well as the realm of supernatural)[829]. Therefore, making the object and breaking it were acts of transformative creation. In a broken form, the armring accompanied its owner after life as a form of movable possession, able to adorn her as well as to confer and indicate her prestigious status while assuring magic protection[830].

The presentation of the corpse in figurines

The third typology of grave inclusions belongs to Milady Tărtăria's funerary anthropomorphic marks. The distorted shape of some statuettes discovered in the pit-grave, asymmetric towards their left, mirrors the deformations of Milady Tărtăria. In one instance, the mask of a Vinča A prismatic and asexual figurine was deformed under a deliberate torsion from its right to left as though a knock that disturbed the clay when it was still soft. However, this is not the only extraordinary distinctiveness of the statuette. It was made in a rush, just cleaned with hands or leather, and intentionally fragmented. It is completely painted, mainly in red and partly in yellow. The red color, and in particular the use of red ochre, has well known symbolic significance in the mortuary rituals of many ancient cultures[831]. In archaeological literature, its utilization in funerary occurrence is often viewed as rendering life and its renewal, marking the transformation and passage from one life to another[832]. The red color, reminiscent of blood, preserves and sustains the energy of life, providing magical force for the route to the world beyond[833].

On the statuette under analysis, the red is just the predominant color within a technicolor frame that has to be considered part of the normative mortuary program. It is not without significance that the mask is bicolor and pigmented with incrusted painting. It is also significant that the craftsman started to drill a hole on the far lower area of the mask. Very interesting are the holes over the armpits, because they were possibly filled with a stick in order to raise and sustain raising arms in orante form that might have been broken during a ritual. The statuette wears earrings and a marked tunic with Vs patterns in front and back.

824 Vukanović T. P. 1985, p. 184.
825 It is held at the Narodni Muzej of Belgrade. Inv. n. 20.196. Height 9.2 cm.
826 Sofaer Derevenski J. 2003.
827 Glowacki M. 2005.
828 Séfériadès M. 2009, p. 189; Kharitidi O. 1996.
829 Chapman J. C., Gaydarska Biserka 2007, p. 143.
830 Whittle A. 2003, p. 120–121.
831 Morphy H. 1994.
832 Gallis K. 1982, p. 243.
833 Zagorska I. 2008, p. 115.

One has to contemplate the possibility that this statuette was not a magic-religious paraphernalia utilized by the remarkable religious adept while alive, but a marker of her passing away modeled after her death, probably resembling her features and acting for her rebirth. This working hypothesis is corroborated even by the closed eyes depicted by large stroke-fissures and the absence of mouth, which are both traits reminiscent of death. It is reasonable to state that this orante-like, disfigured, masked, multi- and full-colored and mouthless statuette with closed eyes, long garment and earrings, as well as its deliberate fragmentation, marked the death of Milady Tărtăria.

In a process that transforms matter into being[834], it is possible that this figurine was manufactured at the time of Milady Tărtăria death, or throughout the defleshing process, or even at the ceremony of secondary burial. Then it acted in a ritual to represent the deceased. Once the spirit of the ritual practitioner was freed during the reburial process, it might have been broken and sacrificed, connecting the living to the power of the prominent and terrific holy person and, by doing so, asserting a political claim of continuity as being still part of the community. The funerary anthropomorphic mark was interred with the three inscribed tablets, as well as with the pile of her ritually fragmented tools (human statuettes and high-pedestal bowl), personal adornments (pendant-amulet and armring) and skeletal remains, which became a compound spiritual wealth.

Fig. VIII.6. The statuette from the ritual pit-grave that might be a marker of Milady Tărtăria's passing away.

Fig. VIII.6a. A detail of the masked face.

Fig. VIII.7. The painted mask.

In conclusion, the burial goods that accompanied Milady Tărtăria into the pit-grave are spiritual in nature and not utilitarian. They show traces of wear and of intentional breakage. This would suggest that they were not regarded as objects merely made for display and adoration in the ritual area of the dwelling. These artifacts were used in various liturgical activities. Besides, some of them were made for specific occasions in the quality and form called for by that occasion.

After the death of Milady Tărtăria, the choice and treatment of liturgical tools and prestige personal adornments have to be considered somewhat out of the ordinary. They indicate profound reverence for the deceased, being affected by high regard in the community due to age and occupational role as a ritual adept with gender as a structuring principle and the mystique of virility, fertility and fecundity as ritual specialization. The selection and handling of burial equipment recognizes Milady Tărtăria's imbuement with social responsibilities while alive as well as post-mortem. Liturgical tools and emblematic adornments interplayed with her while she was alive participating as her identity display. During the disposal program, funerary anthropomorphic marks have been added to them.

The artifacts have been broken and in part mixed and packed with her mortuary remains to be buried. Even after the death, Milady Tărtăria's identity as a magic-religious practitioner was expressed by the interplay of her body and personal objects. Her physical structure was not a passive medium in death rituals on which predetermined and performed social norms were inscribed, but acted actively within them. The Tărtăria case study sheds light on the cultural statute that religious beliefs and liturgies shape individual actions, while individual actions also serve to reproduce religious beliefs and liturgies.

[834] Merlini M. 2009b, p. 538; 2009c, p. 80.

Mortuary facility for Milady Tărtăria's interment within her dwelling

The ritual burial was discovered between two pit-huts that were coeval to a certain extent and contemporary with Milady Tărtăria's lifespan. It is difficult to verify if one of the pit-houses was Milady Tărtăria's abode. C14 data, stratigraphy, and plan of the excavation point toward the pit-house B1. Lazarovici Gh. and Merlini verified the close relationship by comparing the radiocarbon data of the human bones from the ritual pit-grave and the animal bones from pit-house B2 that is coeval and adjacent to pit-house B1, which is stratigraphically (level h16+h17) and positionally connected to the burial place. The radiocarbon date for the animal bones found at the bottom of the pit-house B2 is Rome – 1655 = 6215 ± 65 yr BP (1σ, 5,280–5,060 CAL BC)[835]. If radiocarbon data sustain that the ritual pit-grave and the pit-house B2 pertained to the same time, graphic reconstruction evidences the ritual pit-grave and the pit-house B1 as belonging to the same archaeological complex: they were under the same roof and were functionally connected. However, up to now we have no information regarding the archaeological material within pit-house B1.

If Milady Tărtăria lived in a pit-house (possibly pit-house B1), we do not know if she kept the sacral paraphernalia inside the "ritual pit," as a sort of box with magic-religious tools that was located under the same roof and provided magical protection for the abode. However, the liturgical associations functionally connect the inscribed tablets and the ritual paraphernalia, and relate both to a dwelling with a special function occupied by a magic-religious adept. Gh. Lazarovici and M. Merlini postulate the existence of special abodes belonging to elderly holy ladies, often related to the numerology of 7. Such hypothesis is sustained by the religious discoveries of six-seven idols from Dumești (House 1) as well as at Poduri and Isaiia (Moldavia, Romania), both containing forty-two pieces[836].

In the Middle Neolithic of Southeastern-Central Europe, the *secondary* treatment and *partial* inhumation of osseous remains from a *single and non-cremated elderly person* within the *domestic space* was not a typical practice[837]. Isolated adult secondary burials occurred preferably outside the household frame[838], in simple pits or in ditches dug within or near the settlement[839]. Anzabegovo – Vršnik IV culture (5400–5100 BC) yielded bone deposits at Anzabegovo[840]. In the Vădastra culture (5100–4800 BC), skulls fragments and isolated bones have been recovered at the eponymous site and at Crusovu (Romania)[841]. From the TLPC (Transdanubian Linear Pottery Culture) settlement at Balatonszárszó – *Kis-erdei-dûlô* (Hungary), about seventeen graves were unearthed in pits among the houses[842]. The custom of burying the dead among the houses in the settlements could be observed from the Szatmár culture in the eastern part of the Carpathian Basin (5500–5200 CAL BC). At Mandra (Thessaly, Greece), two single secondary burials were found in pits and cavities dug inside the ditch that surrounded the settlement with a time span of 4940–4550 BC. The limbs of a middle-aged female individual were removed at a later stage from the original interment to be reburied in another pit[843]. In phase I of Makriyalos settlement (Macedonia, Greece, 5200–4900 BC), dozens of mature individuals are represented in secondary burials, mainly inside the large perimetric ditch[844]. In a number of instances, originally articulated burials are suggested by the assemblage of bones covered with stones. Blegen recovered a secondary burial in a Neolithic oval cist grave on the southeastern slope of the hill at the Neolithic village near Hageorgitika (East Arcadia)[845] In a rock shelter at Prosymna (Argolid), three skulls and scattered bones were found as secondary deposits in the upper stratum, dating to the MN or LN period[846].

Individual secondary burials of adults in pits within houses, as at Tărtăria, are very rare. A noteworthy instance is the finding from Mandalo (near Pella, Macedonia, Greece). Here the reburial of an adult in a pit lined with mud bricks and a clay floor has been recovered[847]. A single re-inhumation or a formal

835 Merlini M. 2004j; 2009c.
836 Lazarovici Gh., Merlini M. 2005.
837 Chapman J. C. 2000, p. 146.
838 Perlès C. 2001, p. 279.
839 Weinberg S. 1970, p. 579, 593–594.
840 Gimbutas Marija 1972.
841 Comșa E. 1974.
842 Honti Z et al. 2002, p. 10.
843 Souvatzi Stella 2000; 2088, p. 190, 191.
844 Triantaphyllou S. 1999.
845 Blegen C. W. 1932, p. 661; Angel J. l. 1945, p. 36, table 1; Edward I. E. S. et al. 1970, p. 594. However, according to a subsequent study by Angel J. l. (1971, p. 27) the skeleton might have derived directly from the Early Neolithic population.
846 Blegen C. W. 1937, p. 28; Coleman J. E. 1977, p. 103.
847 Souvatzi Stella 2088, p. 187.

partial inhumation individuates a grave in a household space at Golokut in Srem (Republic of Serbia). Here the upper half of an otherwise articulated skeleton was discovered under the floor of a dwelling[848].

At Podgoritsa (Montenegro), bones from a minimum of fifteen human beings were included in dozens of large pits found cut into subsoil or cultural layers[849]. John Chapman conjectures that the apparent absence of refittings among the bones might indicate that human body parts were regularly taken off-site and moved to other, neighboring settlements to maintain social relations[850]. In the settlements of the Kremikovci group[851] from the Sofia Basin, scattered skulls and mandibles were buried under house floors with or without goods inventory[852]. In phase II of Makriyalos settlement (4900 – 4500 BC), the domestic space was utilized for inhumation as evidenced by two occurrences in the rubbish pit of a habitation[853]. Even if it is a primary deposition, a significant case is the foundation burial of an adult female under the floor of a dwelling at Turdaș (Transylvania, Romania[854]. Scattered skulls and mandibles have been discovered under floors of Late Neolithic and Early Copper Age houses from central and southwest Anatolia[855].

Grave goods are mainly absent in the instances mentioned above. Instead, Tărtăria is typified by secondary treatment and partial inhumation of skeletal remains from a single special individual (an aged female) in a distinct and dedicated pit possibly within her habitation and associated with a cache of her fragmented tools and personal objects which comprised a spiritual wealth.

Milady Tărtăria's abode might have had a distinct cult area as evidenced in a number of coeval Middle Neolithic examples, where clay statuettes and other ritual objects were sometimes recovered from a protected corner or near the hearth of house[856]. At the settlement of Parta (Banat, Romania), one or two corners consecrated to liturgies have been identified in every "block" of two-stage houses comprised of four-five rooms located under the same roof. They yielded remnants of monumental statues (bas-reliefs, busts for bull skulls, steles or columns with bullheads, and altars) utilized either as totems of the related enlarged families, or as domestic altars[857]. The main artifact placed in the cult corner of a Transdanubian Linear Pottery dwelling discovered at Biatorbágy-Tyúkberek (Pest County, Hungary) was a bottle-shaped vessel that forms a stylized human figure representing the embryo within the womb whose face is framed by an „M"-shaped line. The vessel was possibly utilized during virility, fecundity and fertility rituals and was deliberately broken into fragments after it had fulfilled its function. It belongs to the Zselíz phase (5200 – 4900 BC)[858].

An area within the abode devoted to worship

A number of buildings have been identified in earlier archaeological excavations as "prehistoric shrines" or "sanctuaries", such as those at Achilleion and Sesklo in Greece, Căscioarele in Romania, etc. However, at closer examination they are revealed to be, more often than not, residential structures in which an area had been set apart for worship and usually only this distinct spot is related to liturgical finds and phenomena[859]. The inventory of the cult corners also includes the finds from refuse pits since these had obviously been used in houses. Cult life within these dwellings was the private affair of individual families[860]. In the presence of some sort of shaman or priest, they might be indicated as "priest's houses" or even "domestic sanctuaries"[861].

Since the Early Neolithic, areas within dwellings have been devoted to worship. In two Karanovo I–II (6000 – 5400 BC) buildings discovered at Stara Zagora – *Hospital* (Bulgaria) a bucranium was placed close to the fireplace[862]. A Köros building from Szolnok-*Szanda* (Hungary) that yielded several idols and

848 Bačvarov K. 2003.
849 Angelova I. 1983, p. 11.
850 Chapman J. C. 2000, p. 143.
851 It is a variant of the Early Neolithic Starčevo-Criș (Körös) assemblage.
852 Bačvarov K. 2003, p. 91.
853 Triantaphyllou S. 1999, p. 129, 131–2.
854 Torma Zsófia 1879, p. 133–134; Roska M. 1941; László A. 1991, p. 40; Luca S. A. 2001, p. 22.
855 Bačvarov K. 2003, p. 112.
856 Bánffy Eszter, Goldman G. 2003, p. 112.
857 Lazarovici Gh. et al. 2001; Merlini M. 2009b.
858 Kalicz N. 1998; Raczky P., Anders A. 2003; Virág M. 1998; 2000; Merlini M. 2009b, p. 212.
859 Bánffy Eszter, 1997, p. 72.
860 Bánffy Eszter, Goldman G. 2003, p. 113.
861 Lazarovici Cornelia-Magda et al. 2009, p. 61.
862 Dimitrov M., Radeva V. 1980; Kalchev P. 2005.

clay altars in the form of bull horns, was interpreted by the archaeologists in charge as a dwelling house with both sacral (religious) and secular (domestic) purposes[863].

A corner of a Late Neolithic house from Vésztő-*Màgor* (Hungary) has been recognized as regularly utilized for ritual purposes[864]. In the Late Vinča culture (4900–4400 BC), at Jakovo (a suburban neighborhood of Belgrade, Republic of Serbia), a closed liturgical assemblage was found in a cult area belonging to a dwelling house[865]. According to Bánffy, cult corners were so widespread in the abodes of the Lengyel culture (4700–4300 BC) that altarpieces and figurines were not positioned for ornamenting their interior, but were kept in use, as active participating objects in some series of action, in the dedicated ritual area[866].

The typology of the dwelling abodes with a cult corner characterizes also the Cucuteni – Trypillia cultural complex (4600–3500 BC). At Poduri – *Dealul Ghindaru* (Romania) 2 fireplaces connected to cult complexes (twenty-one idols, thirteen chairs, two small objects and a small pot, a chair, and seven idols) have been recovered in a dedicated area of a Precucuteni II dwelling (house 36) only partially investigated[867]. At Truşeşti – *Ţuguieta* (Romania), the Cucuteni – Trypillia buildings 38, 61, 86 have been interpreted as dwellings that belonged to persons holding a religious role, possibly "priest's houses" or "domestic sanctuaries"[868]. At Alexandrovka II (Ukraine), the central area of dwelling D1 is characterized by two special structures, one facing the other: an offering place and an altar[869]. The Cucuteni A–B pit-house 36 excavated at Iablona (Republic of Moldova/ Bessarabia) concentrated numerous anthropomorphic statuettes and was assigned to a ritual specialist by the archaeologists in charge[870]. See, for comparison, the internal organization of several clay models from Cucuteni – Trypillia dwellings[871]. Particularly significant is a house model from Sabatinovka (Ukraine) that shows figurines all grouped in one corner on a clay bench[872]. This kind of dwelling with a cult corner started from the Precucuteni level under Vinča influences and can be noticed until the end of the Cucuteni – Trypillia civilization[873].

The presence of sacred corners or sides within houses is almost universal. According to the medieval pattern, still in use in peasant abodes in Switzerland, the cult corner is the most important area of the habitation, which may explain the seating of the "patriarch" next to it during meals[874]. If in China the whole house is sacred, the northwest corner is the most sacred[875]. In the Mongol yurt, the altar is always positioned on the left of the bed as one enters[876]. In Madagascar houses, the northeast comer is the most sacred, and the north wall is the place for the ancestor cult. If someone is to be honored, he is invited to take the north place[877].

In conclusion, in Middle Neolithic single-room buildings, as in the Vinča A pit-house that possibly belonged to Milady Tărtăria, there was a ritual spot. In the subsequent multi-room dwellings, the cultic area was contained within one of the outside rooms. The inventory of objects devoted to liturgies, positioned in the domestic area, includes mainly miniature altars, anthropomorphic and zoomorphic figurines, bucrania, and vessels. In several cases, the non-secular part of the building was located in proximity to the fireplace. The cult corner was utilized by family members to perform religious activities. The co-presence of consecrated and secular areas in the same dwelling evidences both the importance of domestic ritual and the nonexistence of sharp borders between sacred and secular spheres[878]. In a number of cases, it is documented that this typology of dwelling belonged to eminent persons involved in ritual practices that were performed in it[879].

863 Kalicz N., Raczky P. 1980–81.
864 Hegedűs K., Makkay J. 1987.
865 Bánffy Eszter 2002.
866 Bánffy Eszter 2005.
867 Monah D. et al. 1982, p. 9–22; Mantu Cornelia-Magda, Dumitroaia Gh., Tsaravopoulos A. 1997, p. 179–81; Monah D. et al. 2003; Monah D. 2005.
868 For a survey see Lazarovici Cornelia-Magda et al. 2009, p. 61–63.
869 Chitic O. 2008.
870 Sorochin V., Borziac I. 2001.
871 Lazarovici Gh., Lazarovici C.-M. 2003; Lazarovici C.-M., Lazarovici Gh. 2006; 2008.
872 Makarević M. L. 1960, p. 290–301; Gimbutas Marija 1974, p. 26, 73.
873 Lazarovici Cornelia-Magda 2010.
874 Weiss R. 1959, p. 151–152.
875 Raglan L. 1964, p. 108.
876 Montell G. 1940, p. 82.
877 Rapoport A. 1969, p. 55.
878 Bánffy Eszter 1997, p. 72–74; Merlini M. 2009c.
879 Lazarovici Cornelia-Magda 2010.

It is possible that a substantial corner of the dwelling B1 from Tărtăria might have been devoted to magic-religious rituals while the rest might have been associated with daily life, albeit an everyday routine that was permeated full time and with any action by the spiritual path of the initiate[880]. Anthropologic comparison assimilates Milady Tărtăria's abode to the present-day ashrams of sadhus in Hindu culture (a holy person carrying an ascetic lifestyle). They are one-room dwellings for both living and retreating that are characterized by a corner area consecrated to liturgies. Sometimes, a second room or an open space is set apart and specialized for cult purposes.

A CONSECRATED PIT-GRAVE OF A NEWLY CREATED ANCESTOR FOR A CORPORATE GROUP

A crucial point for interpreting the function of the inscribed tablets and the meaning of the signs within such a exceptional mortuary context is that the discoverer and most of the scholars still consider the Tărtăria pit to be a cultic sacrificial hollow filled with a votive hoard, a dedication deposit[881], a "sacrificial offering"[882], or a foundation offering like at Platia Magoula Zarkou in Thessaly[883]. It is actually a ritual pit-grave connected to ancestor veneration[884] within the frame of a corporate group, even if the term "ancestor veneration" has to be used with caution[885].

Milady Tărtăria's bones underwent a thorough defleshing process that required an elapsed time that cannot be determined (from a few months to some years). After the removal of the flesh from the bones, the ritual fragmentation of the skeletal remains and their mixing with her identifier artifacts, the secondary burial of Milady Tărtăria, might have taken place where she had spent her life. An association of burials with habitation structures, especially interments made under the floors and inside dwelling places, was an obvious trend in the Neolithic of Southeastern Europe[886]. It is possible that, during the time lag between the first and second deposal, Milady Tărtăria's house was taken out of use. The practice of interring people within abandoned buildings is well documented during the Early and Middle Neolithic. See, for example, at Nea Nikomedia[887]. At Ayia Sofia (Thessaly), the secondary deposits of an adult and a child were placed in the corners of two overlying houses after their abandonment[888]. Focusing on the British Bronze Age, Joanna Brück maintained that the edifices might have had a lifecycle. The death of the person was connected in some way to the death of the construction[889]. One can relate the lowest filled levels of the pit to this period[890].

The evidence of a grave blessed by spiritual wealth, instead of the occurrence of a dedication deposit, indicates that the pit and the pile of objects – including the tablets bearing script signs – cannot be interpreted in a straightforward manner in terms of giving direction to an otherworldly power for supernatural returns (e.g., magical protection, success, health, wealth, the flourishing of crops, animal fertility, or family fecundity). The ritual paraphernalia buried with the bones should be interpreted primarily as actors of socially significant death liturgies reflecting social standing and the magic-spiritual expertise of the deceased. At Tărtăria, the human body, and its associated artifacts, constituted a form of devotion and a means to facilitate communication with supernatural powers *only* though distinctive funerary rituals and periodical ceremonies performed after the secondary burial. This scenario is confirmed by the nature of the funerary goods. They were not gifts to the deceased, but her personal belongings (religious tool-kit and "jewelry") and funerary anthropomorphic identifiers that accompanied her re-birth into an ancestral condition and marked the descendant's new status[891].

The commented mortuary practice reflected conscious decisions made by the members of the community and corporate group about customary and effective social behavior considered suitable to express and exploit relationships with such a revered deceased. The secondary burial of Milady Tărtăria

880 Schwarzberg H. 2003, p. 81.
881 See categorization in Bradley R. 1990, p. 198.
882 Vlassa N. 1962; 1963.
883 Whittle A. 1996, p. 88, 101.
884 Cauvin J. 1978; 1994.
885 Bonogofsky M. 2005; 2006; Croucher K. 2010, p. 11.
886 Bailey D. W. 2000, p. 116–117.
887 Angel J. I. 1973.
888 Milojčić VI. et al. 1976, p. 6–7.
889 Brück Joanna 2006. Even in Late Neolithic Mesopotamia, buildings were abandoned after the burial of the dead within them. See Campbell S. 2007–2008, p. 14.
890 Lazarovici Gh., Merlini M. 2005; Merlini M., Lazarovici Gh. 2008.
891 Oestigaard T. 2000; Oestigaard T., Goldhahn J. 2006.

with her liturgical tools, personal adornments and funerary anthropomorphic marks within the context of a dwelling previously occupied by her as a magic-religious adept expressed not only her preeminent status and persona, but was consistent with her transformation into a novel ancestor with a continuity of recognized duties and responsibilities to serve the social unit.

This milieu leads us to imagine the multistage and ritualized secondary mortuary practices[892] related to Milady Tărtăria as an extraordinary process of events in terms of expenditure of resources, effort, time and dedication. Through it, the corporate group transferred the relationship, functions, and obligations that closely united it with the ritual practitioner at a more effective level, amplifying symbolic meanings in relation to social cohesion and protection against natural and supernatural phenomena[893].

Since we know that these were precisely the operational domains of an ancestral dead, we can infer that such a circumstance happened at Tărtăria. We might therefore conclude that Milady Tărtăria was not just a forebear that was notorious and had to be remembered[894], representing another dimension of the past[895]. Instead, a distinct funeral orchestration was put in play by the community to establish the worship of a new ancestral power.

Corporate involvement with the ritual pit-grave as hub for group identification

The funerary program, the final inclusion of Milady Tărtăria within a distinct burial space, and the peculiar location of her deposition are significant indicators concerning corporate group membership and identity having household as a sub-level. Her secondary interment possibly in a habitation structure supposedly reinforces the principle of a concentration of finds and rituals in the domestic domain, even if one has to remember the above-mentioned particularities of her dwelling. However, the Tărtăria case study denies the picture according to which individual graves can be considered in some way as standing for the notion of the house or household[896]. The scenario is not conceptually linked to I. Hodder's distinction between the domestic (*domos*) and the wild outside the community (*agros*) and his consequent proposal that household was the centre of social life and symbolic elaboration, expressing the more general concept of securing and nurturing[897].

Even if Milady Tărtăria was re-buried under the floor of her abode, features of her mortuary program point, not to a household cult,[898] but to a communitarian ceremony performed by ritual practitioners and conceived as an experience of collective representation and emotion[899]. It most likely happened according to the communication rule that the secondary mortuary practices are in general *deliberately* held in highly visible public contexts to maximize participation in this shared experience in a meaningful way[900].

Secondary mortuary rituals differ from primary burial of individuals, as these ceremonies often crosscut kin and household lines, thereby emphasizing the community over the individual[901]. Community members coalesced at the pit-grave to engage in special rituals to commemorate the re-burial of the dead, and the feast was a central element in these significant events. The funerary ceremony performed at Tărtăria was a means to promote and legitimize corporate group solidarity. Therefore, it might have acted as a protective device both for the dead and for the living to ensure the continuity of the community and its ancestral heritage. Elaborate corporate symbolism, as reflected by the mortuary practice, evidences mutual obligations set up with kin and non-kin and indicates the promotion of social solidarity (even if not deleting competition within the community). We cannot know if Milady Tărtăria's secondary burial played also at a third level, being part of an intense intercommunity or inter-lineage competition. The gathering of a wide community for her re-deposition possibly created opportunities for individuals and groups to reaffirm and renegotiate social roles.

892 See Kuijt I. 2008, p. 175.
893 Fortes M. 1976, p. 13; Huntington R., Metcalf P. 1985.
894 Bloch M. 1996.
895 See Whittle A. 1996, p. 369 concerning LBK burials.
896 Hofmann D., Whittle A. 2008, p. 293. For a critical analysis of this statement, see Fowler C. 2004; Brück Joanna 2004; 2006; Fahlander F., Oestigaard T. 2008; Stuzt 2008.
897 Hodder I. 1990, p. 32–42.
898 It therefore challenges the Pavlovian view that for necessity "intra-mural burial emphasizes both the social and spatial proximity of the individual deceased to the household within the great village community" (Chapman J. C. 2010, p. 42).
899 Inomata T., Coben L. 2006, p. 23.
900 Kuijt I. 2000, p. 148.
901 Kuijt I. 2000, p. 145.

We do not define the corporate model against the house model, which is also a corporate body with a group identity, sometimes with a venerated ancestral dead[902]. We merely highlight the productiveness of the corporate group model, interpreting the Transylvanian burial, as well as the usefulness of this case study, to contribute to establishing a firmer corporate group model for the Danube civilization.

Expanding upon the subject of the pit-grave, the continued significance of a distinctive blessed place was consecrated, or at least symbolized, by the possible association of the funerary program with socialization of the dead and ancestor reverence, constituting a spot devoted to the exchange between the living and the recent ancestral being.[903] Milady Tărtăria's pit-grave may have been a means of connecting descendants with her, and enlisting her good will toward the living. This may confirm that the relationship between the living and the newly created ancestor was deeply imbedded within daily life and was a core feature of the community's belief system.

A HABITATION AFTER ACHIEVING AN ANCESTRAL STATE

The placement of Milady Tărtăria in relation to her habitation provides supplementary clue as to where Middle Neolithic people thought their ancestral dead resided and how they should be integrated into the community of the living. They did not occupy a separate realm from living people and had a relationship of solidarity with them[904]. Formal burial, such as in a pit, was used to contain the remains of Milady Tărtăria whose corpse resided in the ground within an abode structured like abodes of the living. She was placed into Mother Earth's body, whose womb governed the repeated cycles of life and death[905]. Thus, all ritual events connected to the pit-grave possibly included an essential step marked with libations to the earth through the pouring of liquid onto or into the ground, feeding the ancestral dead in this way.

There is no indication of post-interment activities with osseous remains or fragmented goods such as further processing or handling. After filling the pit-grave with them and concluding the secondary funerary rite, the place probably developed as a central cult place. It is conjecturable that rituals on the residence of the ancestor were observed, but they did not yield enduring material apart from the bone of the cooked animal mentioned above.

If her interment in the ritual pit-grave linked individual and collective identities and anchored her ancestry to a specific blessed locality, the mortuary practice did not create a highly visible grave. The pit had limited measures. Lazarovici Gh. and Merlini calculate that several strata of it (ca. 1/4 of the whole) were destroyed during archaeological excavations, i.e., 7–10 cm in height. This means that, as mentioned before, originally the pit was about 30–40 cm deep with a diameter of about 40 cm.

In addition, no funeral architecture was evidenced by the archaeological excavation. Vlassa did not find traces of stones, slabs, etc. It is inferable that the highest level of labor expenditure was exhibited not for the grave, but for the treatment of the body and its correlated liturgies (feasting included). In the Middle Neolithic of Southeastern-Central Europe, funerary architecture did not give shape to space. However, it is likely that the Transylvanian burial was marked by the pit-house that served as a visible territorial marker. Its positioning within the village would have been a constant reminder to people of the custodian ancestor and linkages between the community factions such as kin, other family members, corporate group, and other groups connected through webs of social, economic, ritual, and political obligations.

If there is no evidence that the top of the pit-grave had been deliberately covered in any fashion, Gh. Lazarovici and Merlini documented that it was never reopened in more recent times and there are no intruder artifacts into the early Vinča layer (to which the pit-grave belongs) from later and higher levels[906]. From two photos shot in 1961 by the archaeologist in charge, one can check the dark, thick undisturbed layer of 0.5 m above the mouth of the pit, at least 1 m. under the Copper Age Coțofeni level[907]. As already mentioned, part of the pit was destroyed, not in prehistoric time, but during archaeological

[902] Lévi-Strauss C. 1982; 1987.

[903] The instance is more about representation than symbolism. Ginsburg C. (2002, p. 72) describes the case of a dead ruler that was buried twice at two different locations. One grave contained the body, while the other held a material portrayal of the ruler. It was the grave with the representation that was considered the "real" one (Fahlander F., Oestigaard T. 2008, p. 3).

[904] Freedman M. 1958, p. 85; Fortes M. 1976, p. 5; McAnany P. 1995, p. 85.

[905] Gimbutas Marija 1999, p. 55.

[906] Merlini M., Lazarovici Gh. 2008.

[907] Vlassa N. 1963, fig. 3, 4.

excavations made by K. Horedt or N. Vlassa. Because of this damage, some pieces of artifacts and bones might have been lost making the decoding of the rationale for their selection even harder. However, the systematic presence of the head and upper torso of the figurines, and the absence of the lower section of the same figurines, would not to be considered a strange coincidence.

If the final burial represented the rebirth of the Transylvanian religious adept as a newly created foremother to be venerated, and if she was interred into Mother Earth's womb, the funneled pit itself might have represented the uterus for the regeneration of Milady Tărtăria as a container for the hybrid fetus made of bone/clay/spondylus/stone.[908] The pit might even be described as her transfigured body itself, with the walls of the cavity a sort of chthonian skin. In any case, the ritual pit-grave operated as a „cultural womb"[909] for the descendants within the context of intergenerational transmissions.

Place-value of the sacralized pit-grave of the foremother

If the pit-womb metaphor is not to be uncritically applied, it is helpful for understanding the meaning of the placement of Milady Tărtăria under her house floor within a communitarian framework. The pit-grave, possibly within her habitation structure, tangibly reincorporated the dead within the world of the descendents. The burial locus was the focal point from which descendents had access to the spirit of the ancestor, insuring that Milady Tărtăria continued to participate in their social actions. The presence of her grave influenced the living through memory, affecting them with socially expected behavior, supporting the well-behaved persons through supernatural powers (or interceding through supernatural powers) to maintain their procreativity and prosperity. The sacralization of these structures embodied social cohesiveness and continuity within the corporate group and community (with the household as a sub-horizon of them).

A key reason to expend energy for mortuary activity and interment in the ritual pit-grave was possibly group identification associated with legitimization of the corporate ownership, control and/or access to the area and to its assets. Consistently, corporate members might have gathered periodically at Milady Tărtăria's pit-grave to celebrate rites of unity[910], ancestor veneration, inalienable corporate property (on agricultural land *in primis*), and access to natural resources. According to the archaeologist in charge, the bottom of the ritual pit was located in the deeper layer, in the sterile loess[911]. Was there the necessity to touch the ground as in a foundation ritual? Archaeological excavation from IPCTE at the Lucian Blaga University in Sibiu has to verify if Milady Tărtăria's deposition may have played a crucial role in the sanctification of an ancestral space at an early stage of Vinča settlement occupation, establishing ancestral rights on a newly occupied place.

As mentioned above, the patterns of the special pit-grave conveyed roles and procedures of the corporate group within the community. In search of the sociological significance for burials, Saxe stated that such social groups with rights on certain valued and restricted resources, through attainment and/or legitimation by means of lineal descent from the dead (i.e., lineal ties to the ancestral dead), maintain either discrete cemeteries or portions of them. He also advanced the hypothesis that, conversely, the emergence of formal disposal areas was caused by increasing competition for access to vital resources and indicates the occurrence of such descent groups that tried to control those assets[912]. In this context, the placement of an ancestral dead can become a highly political negotiation[913]. Goldstein's survey of thirty societies worldwide validated only the converse of the controversial Saxe's hypothesis to be usually true: the occurrence of a formal, bounded disposal area used exclusively for the dead indicates the probable presence of a society that has a corporate group structure in the form of a lineal descent system[914]. Corporate groups symbolize and ritualize their corporateness by many means, only one of which may be the maintaining of permanent, delimitated and controlled areas for the exclusive disposal

[908] Unfortunately, the category of the hybrid or compound body generated by recombining fragments of a human being with pieces of funerary goods is not contemplated in the types of 'deviant' burials recently elaborated by J. C. Chapman (2010, p. 32–34).
[909] Kemp B. 2006, p. 69.
[910] Watson J. L. 1982, p. 597.
[911] Vlassa N. 1963, p. 490.
[912] Saxe A. A. 1970, p. 119, 233–234.
[913] Pink C. M. et al. 2008.
[914] Goldstein L. 1981, p. 61.

of a social group's dead[915]. Saxe/Goldstein's assumption has been heavily criticized because it restricts causation to the single dimension of material interest[916].

Having in mind that control over vital resources does not exist independently from the ideas and perceptions of prehistoric actors, and that the issue has to be located within the broader cognitive structure of the particular society under study[917], corporate group presence fits the Middle Neolithic societies of Southeastern-Central Europe and the Vinča A community at Tărtăria. In those villages, networking at local and regional levels, such descent groups had residential coherency living on the same plot of agricultural land, engaged in quotidian face-to-face interactions, joined in collective activities, as a daily work group and jointly owned inalienable economic resources and property (or rights to corporate property) within a lineage. Under this frame, the influence of ancestors and the territorial control through their burials were pivotal. Milady Tărtăria's burial possibly eased inter-generational transfers of rights to vital resources. Even if the persons associated with her did not constitute necessarily a permanent and closed corporate descent group[918], a question has to be posed: Was the genealogical distance from her a criterion to establish, within the lineage, individual and household differential access to resources and benefit from corporate property?[919]

The presence of figurines in an exceptional corporate mortuary context supports ancestor worship and strengthens the argument that some of them may have acted as images of the recent ancestor. Paraphrasing some suggestions from Talalay's research on Kephala, one can state that at Tărtăria the prismatic and technicolor statuette from the ritual pit-grave might have been used as a corporate, social, economic, and territorial symbol, and representation of ties to a community's ancestral spirit[920]. This intentionally fragmented and buried figurine may have served as a portrait of the ancestor that chartered ancestral rights to the territory though the place-value of the sacralized pit-grave. Talalay's arguments are based on anthropological literature and we lack key information on the Tărtăria community. Therefore, the explanation of social, economic and territorial employment of corporate symbols in the form of figurines tied to ancestral dead cannot be directly invoked. However, it opens up a stimulating possibility for interpreting the links between the kinship structure of the community and Milady Tărtăria as a ritual specialist, her abode, and her pit-grave.

To summarize, the mortuary pattern of Milady Tărtăria is structured by a distinctive norm concerning both the treatment of the deceased according to a fragmentation/accumulation principle and in-house location of the re-interment. It can be evaluated both as an indicator of individual identity vs. collective identities, as well as corporate vs. community concerning social reproductive strategies.

We do not know if Milady Tărtăria secondary burial was followed by the reutilization of the pit-house as an abode or not. Ethnological documentation suggests that in some cases residential structures devoted to holy life are occupied by religious practitioners who follow the spiritual line of the deceased master-mistress and are bond into a cycle of ancestral veneration. In other occurrences, they become memorial shrines. It is not infrequent that they are abandoned when the devotional memory of the departed spiritual teacher fades. The secondary mortuary practices performed at Tărtăria required the living to be aware of where, when, and according to which procedures Milady Tărtăria was interred into the ritual-pit. These activities may have included the telling of life histories describing her performances as a successful ritual adept, as well as narratives and expectations about her otherworldly powers. The sacralized spot mobilized this awareness through time as a form of collective, intergenerational memory. It served not only to commemorate the individual identity of the dead ritual specialist, but also facilitated intergenerational links among past, present, and future conduits for collective memory, and the reaffirmation of community identity and membership. Although the deceased was no longer present, she did not belong in the past: rather, she resided among the living, but in another place[921]. "Within two generations memories, events, and objects associated with her might have been transformed from experiential and personal to referential and

915 Carr C. C. 1995, p. 122.

916 Hodder I. 1980; 1982, p. 196–9; 1984, p. 53; Shanks M., Tilley C. 1987, p. 43–4; Pearson R. et al. 1989, p. 3–5; Chapman R. 1990, p. 2–6; Morris I. 1991, p. 147.

917 Morris I. 1991, p. 147–8.

918 Bloch M. 1971, p. 114–120; Scheffler H. W. 1985, p. 9, 10; Kuper A. 1988.

919 Freedman M. 1958, p. 34, 127.

920 Talalay L. E. 1991, p. 49.

921 Kuijt I. 2008, p. 176.

abstract by the means of a process of remembering the collective and forgetting the individual"[922], or they simply disappeared.

The archaeological excavations beginning anew at Tărtăria will situate the burial in the structure of the settlement and social landscape[923]. In particular, they will clarify if the corporate group physically included the ancestral dead into the boundaries of the area used by the community (settlement), however segregating Milady Tărtăria in a "mausoleum" that assured her as part of the living, while separated from the areas of daily life. Unfortunately, regular cultivation and erosion have damaged part of the archaeological site of Tărtăria – *Groapa Luncii* and the area of the pit-grave.

Even if it is possible that the new ancestor was not physically incorporated into a dwelling utilized by the living, she was in any case part of the living society. This symbolic contradiction concerning how Milady Tărtăria was re-integrated into the community of the living aligns well with the above interpretation of mortuary data as reflecting her spiritual role and collective reverence within a non-hierarchical and inclusive frame of social organization. The context indicates a passionate spiritual life with elaborate symbolism and intense ceremonialism developed within a medium size community engaged in early farming.

A FRACTAL AND COMPOSITE PERSON PARTICIPATING TO THE ETERNAL COLLECTIVITY OF THE ANCESTRAL DEAD

As a result of funerary procedure, at Tărtăria the two principles of intentional fragmentation and reduction (bodily dismemberment and breakage of emblematic objects) and accumulation (selecting, grouping and interring together fragments of both human body and artifacts) worked together.

And more significantly, accumulation and circulation (distribution and sharing of relics from both kinds among people within a circuit that was not necessarily restricted to the mortuary arena) acted together in the mortuary procedure through multiple episodes, reinforcing distinctive social relations and identity. The operational chain occurred possibly at the ancestral lineage level within the community sphere, with the household as a sub-level. Relationships expressed by means of fragmentation, followed by the collection and storage of core fragments in a consecrated place, and the socialization processes among (kin, lineage or spiritual) descendants, involved skeletal material, the magic-religious tool-kit, personal adornments, and funerary anthropomorphic identifiers of the revered and terrific holy lady.

Expanding upon the subject of the bones, the future inventory and analysis of skeletal relics mentioned above will verify the possible deliberate patterning with regard to both the bone fragments – selected for stocking in the redeposit – and the portions of the body from which they were taken. The skull is missing. Only some pelvic fragments remain. Many minor bits and pieces of bones have not been found by Vlassa (in particular elements from the hands and feet). The absence of fragile bones might be the result of the hypothesized natural processes of defleshment and disarticulation[924]. These elements are the most susceptible to decay. Besides, it is well known that mice and rats quickly devastate these parts of cadavers. The absence of the smaller bones might also be derived from a possible transfer of skeletal material[925]. We cannot know if the skull received special attention.

The metamorphosis of the deceased from a recognizable body to single bones and bone fragments, their treatment and the selection of portions of the remains imbued with specific meaning, were important steps in establishing social memory and assisting Milady Tărtăria to gain an ancestral state. This process served to re-establish and maintain contact between the living and the dead persona[926]. A portion of the bone fragments that the archaeological excavation did not find in the pit-grave might have been removed during the secondary disposal and utilized to connect the most recent ancestor, Milady Tărtăria, with her living descendants and/or might have been passed on to connect a third party[927].

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922 Kuijt I. 2008, p. 186.

923 Viz. in Campbell S. (2007–8) an analysis and debate relating ancestral dead to place. According to him, the burial of the dead within buildings changes the nature of activities and beliefs surrounding them, with close correlation between the deceased and the transformation of the settlement (Campbell S. 2007–8, p. 14).

924 Lazarovici Gh., Meșter M. 1995.

925 Sarkar S. S. 1951, p. 23.

926 Chapman J. C. 2000; Thomas J. 2004; Fowler C. 2001; 2004; Brück Joanna 2001; 2005.

927 Viz. the selective collections created by removing skeletal elements during the process of secondary burial in several Megalithic tombs (Shanks M., Tilley C. 1982; Damm C. B. 1991, p. 45). They included most frequently the skull and major leg bones (Baxter M. 1999).

As noted by Thomas[928], this distribution can be viewed as a flow or pathway. It involved the recirculation of these objects through multiple events[929]. The disposition, not anatomical order, of selected portions of the post-decarnated body was considered sufficient to represent and sanctify the presence of the deceased within the grave.

The artifacts that contributed to Milady Tărtăria's identity when she was alive (liturgical tools and personal adornments), and after death (her funerary anthropomorphic marks), were submitted to an intentional fragmentation (not the inscribed tablets), possibly in a ceremony performed during the primary burial or, more likely, during the re-deposition. Careful examination has established that these objects were not broken accidentally or by misuse. They were „killed" and ritually interred. First, one has to observe that the occurrence of magic-religious tools and exotic, non-functional, precious items (as an armring made of *Spondylus* shell) would mark an inappropriate pattern for a discard collection. Second, these artifacts were fragmented carefully and deliberately according to a methodical and selective breaking process. The figurines made of clay were truncated into two parts, not at their vulnerable points and junctures, but retaining the entire upper part (head included) to be buried in the pit; the blacktop was smashed from inside with a club or a stone; the armlet was broken down exactly in the middle. Third, funerary goods were deposited not only broken, but also incomplete and never restorable to completeness.

Even if some pieces might have been lost during archaeological excavations, the phenomenon of missing parts is a good indicator of deliberate object breakage[930]. To summarize, the deposition of incomplete ritual objects inside the pit-grave was not an attempt to discard them as rubbish because of their broken state, but functioned as a distinct liturgy of fragmentation followed by the accumulation and circulation of relics.

Joanna Brück offers a reading of fragmentation that could be a useful tool to interpret the Tărtăria case: as with other rites of passage, the destruction of the old social persona through the breaking up of a cadaver and objects is necessary for the creation of a new identity, e.g., regeneration and new life[931]. On some level, the funerary procedure within the Neolithic community at Tărtăria was probably linked to issues of old and new memory of the deceased (intergenerational memory) as well as old and new identity of her as materialized aspects of a complex web of interaction linked to structures of authority within the village. At the first stage, the ritual enacted through the fracturing of the emblematic objects into pieces might be connected to the rupture of the relations between their owner / represented person and the life sphere. Subsequently, a memory device based on both distribution and place-value was put into play. Some fragments of the intentionally broken artifacts may have circulated among the living as a way of contacting the newly created ancestor and securing her support, or as a source of more generalized benefits, as well as to solidify the group. The distribution might have occurred along two not mutually exclusive channels. The first was an 'enchainment' procedure based on the sharing of blessed fragmentary objects among kinsfolk, corporate members, acquaintances and associates in order to establish a magic "fill rouge" between the newly dead and the (kin, corporate and spiritual) descent group based on a mutual commitment[932]. The second channel of distribution might have been the spread of some consecrated fragments throughout the settlement and fields to guarantee fertility[933].

Any circulating material item acted as a fractal[934], expressing the whole identity of Milady Tărtăria embodied in them and her immanent enchained relationship of exchange with the descendants at whatever the scale of the phenomenon (the size of each shard as well as the extent of the circulation circuit). The core part of every sacralized object was not dispersed, but collected and associated with the three inscribed tablets to compile a spiritual treasure that has been interred in the discrete (individual) pit-grave[935] during a devotional or initiation (in case of spiritual descent) ceremony. At Tărtăria, if the movement of fragments cannot be falsified but is equally not yet supported by a solid body of data, their concentration as incomplete items is indicated by their re-deposit into the pit-grave.

928 Thomas J. 2000, p. 662.
929 Garfinkel Y.1994; Griffin P. S. et al. 1998; Kuijt I. 2008, p. 182.
930 Chapman J. C., Gaydarska Biserka 2007, p. 3.
931 Brück Joanna 2001, p. 157; 2006, p. 88.
932 Chapman J. C. 2000, p. 140; discussion of the concept in Brück Joanna 2001; 2005; Fowler C. 2001; 2004.
933 Chapman J. C. 2000, p. 226; 2001.
934 Chapman J. C. 2000, p. 39; Chapman J. C., Gaydarska Biserka 2007, p. 9.
935 Arnold B. 1995, p. 43.

The complex ritual process of fracturing and then accumulating and circulating was based on the acts of selecting and handling the pieces of bones and artifacts to be gathered in the burial site or to be spread among people and places. The operations on osseous remains and artifacts were accomplished in convergent pairs, realizing distinct compound entities made up of blessed and blessing tokens: human remains and clay/spondylus/stone elements[936]. Spiritual synecdoches (where any part stands for the whole) were mobilized for partible exchange relations. The most significant synecdoche was deposited in the funerary complex in connection with death rituals where it performed, not simply as an "item of faith" directed to communicate with supernatural powers in hope of a return from a spiritual investment, but primarily triggered the elevation of Milady Tărtăria to the ancestral sphere.

People in the relatively small village of Tărtăria would have known each other, were likely to be biologically and economically interrelated, and were aware of the physical appearance of the residents. Thus, memory of the recently deceased individuals was direct and personal. Echoing I. Kuijt's suggestions concerning plastered skulls of persons in positions of leadership in MPPNB, the possibility must be considered that the hard-working construction of Milady Tărtăria's bone/clay/spondylus/stone/skeleton deposit attests to the coexistence of two procedures. On the one side, it was a physical and symbolic way to distinguish the newly created ancestor from other reputable members of the community. The mortuary program at Tărtăria must have made a great effort to make people of the settlement aware for a long time of the identity, as well as acts and status of the venerated ancestral dead who, while alive, was a revered ritual specialist. On the other side, the above mentioned individualization process coexisted with a community-oriented modus operandi of mnemonics dealing with the dead aimed to transform her physical remains as a means of indirect and referential memory about her within a collective ancestry. Doing so, the living effected the transformation through experiential memory, focused on named persons, to referential memory, concentrated upon the symbolic collective[937]. These two routes together celebrated both the historical, honored ritual member to become a venerated foremother, and the community's past and present (in terms of intergenerational memory and structures of authority within the village).

In short, fragmentation, reduction, accumulation, and circulation cannot be undertaken as isolated events. Rather we need to consider them in terms of actions hinged into the broader social process of the disembodiment and recirculation of parts of the human body of Milady Tărtăria, including the presentation of the body in figurines, as well as her liturgical tool-kit, and personal adornments. The mortuary *chaîne opératoire* was part of a dynamic and shared social process with focus on the construction of social meaning, memory and identity.

The cult context and the rationale for the aforementioned practices indicate that Milady Tărtăria's personhood had a double stage, as her packed osseous and artifactual synecdoches had, as well. In life, she was most probably a cult leader and perhaps a revered full-time specialist. After death, she became a recognized ancestor rendered through a culturally significant, yet tangible form. Her representation was compact, motionless, stable, and concealed in the burial; it was disarticulated, in motion, nomadic, and displayed among the hands of individuals or scattered in the village or fields. Concentrating and circulating at the same time, the venerated ancestral dead settled at the centre of a network supported by collective memory and reinforced social relations. These two ways of representing the 'person' are in tension from the early Mesolithic onwards and they denote one of the central problems of human identity[938]. Chris Fowler has recently defined and applied to archaeology a more broadly concept of fractal and composite person[939]. Joanna Brück refers to the Bronze Age body as a combination[940] of elements that are represented by and constituted through artifacts.

Concisely, at Tărtăria, the act of accumulating and circulating after fracturing and selecting can be compared to a coin with two sides, and yet it is always the same object. Correspondingly, the achievement of an ancestral state made it necessary that fragments of skeleton and objects of Milady Tărtăria had to be shared among descendants, and that the deposited parts of the whole were so distinctive that the whole was obviously represented, making up a spiritual treasure.

936 Significant is the discussion on Grave 3 from Hódmezövásárhely-Kökénydombról (Hungary) where a vessel containing a net weight replaced the head of the dead (DeLeonardis L. 2000).

937 Kuijt I. 2008, p. 179.

938 Chapman J. C. 2000, p. 146.

939 Fowler C. 2004, p. 27 ff.; 2008.

940 Brück Joanna 2009.

CONCLUSIONS

In the Danube civilization, not every corpse received individual, selective, incomplete and partial secondary burial of separated parts of the skeleton in a sacralized pit-grave within the previous abode. In fact, it was a very rare event. Even rarer was the re-deposition of a hybrid body made of the skeletal/artifactual fragmented remains together with three inscribed tablets kept as the only complete items. In the present chapter, we have provided insights in order to establish a framework within which to assess the plausibility that about 7300 years ago a standing magic-religious adept was consecrated as a novel ancestor in a Middle Neolithic medium-scale farming community that developed along the Mureș River. The indication is corroborated by socially and culturally driven beliefs and worldviews of a normative and emotional funerary process that transformed the corpse of this "kin" religious specialist into the body of an "ancestor". At Tărtăria, personhood was commemorated more by the transformation of the dead through the mortuary program and subsequently by interactions between the sacralized pit-grave and people than through attention afforded to burial or static display[941]. After achieving an ancestral state, Milady Tărtăria resided not solely in the treated corpse and sacralized pit-grave, but also in the exchanges created with her by the living during her mortuary practices and commemorative rituals after the re-deposition.

Even if the extremely heterogeneous character of behaviors connected with the Transylvanian re-deposition and the difficulties in interpreting them have to be underlined[942], the present chapter has presented enough evidence to identify what happened at Tărtăria not as a mere secondary deposit of human bones. It was actually a single, partial, and packed burial of secondary character. The protagonist was the body of an elderly, disabled, terrific and revered holy woman whose influence continued post-mortem, as while she was alive, striding across the gap, limping between the world of life and the land of the ancestral dead as well as exploiting exceptional skills in rituals concerning the sovereign mysteries of vitality connected with sexuality and fecundity.

Milady Tărtăria's death was not experienced as instantaneous by the community. It was a slow process of transition from one spiritual state to another because the dead still somehow inhabited the physical remains. The re-deposition was the key passage of a multi-stage process that had high symbolic value, was pre-planned, involved multiple households, was intergenerational, and required extraordinary community involvement[943]. Primary interment or protected exposition of the intact corpse in a place of temporary storage to disaggregate enabled the dead person to rest and allowed her spirit to leave the material world[944]. It was necessary to eliminate the decadent flesh from the skeleton before Milady Tărtăria could join the community of the ancestral dead[945]. Exhumation after decomposition of the soft tissue, leaving only the bones, reintroduced her, in a new and alien form, into the world of the living. Ritual disarticulation / breakage of the mortal remains and selection of key fragments followed. A parallel procedure fragmented and sorted out her liturgical paraphernalia, personal adornments, and funerary anthropomorphic identifiers.

The association/incorporation of broken liturgical tools, personal ornaments, and effigies with the skeletal remains of Milady Tărtăria was a fundamental passage, being consistent with the transformation of her corpse into a hybrid bone/clay/spondylus/stone/skeleton suitable for an ancestral state and its insertion within a system of place-value and exchange. The partial, admixed and packed burial at Tărtăria challenges the presumption that all human bodies are central and pivotal to the burial rite, whereas goods play a secondary and supportive role. It represents a typical case of the Middle Neolithic in Southeastern-Central Europe in which an individual does not begin and end at the boundary of its body, reconsidering the many dimensions of being a person in prehistory, beyond the body[946].

The secondary, individual, and partial burial of the compound body was the pivotal moment for Milady Tărtăria's identity to end the state of liminality, moving from the position of "respected and admired ritual specialist" to the status of "venerated ancestor". The passage was symbolically represented by the transfer of the bones from the location of initial storage to the place of final deposal. A ritual feast signed the re-interment of Milady Tărtăria, celebrating her rebirth into the eternal collectivity of the

941 Brück Joanna 2004; Fowler C. 2001; 2004; Williams H. 2004.
942 Duday H. 2009, p. 90.
943 Downs R. E. 1956; Metcalf P., Huntington R. 1991; Kuijt I. 2008, p. 175.
944 Thomas J. 1999, p. 136.
945 Thomas J. 1991, p. 112; 1999, p. 136.
946 Whittle A. 2003; Fowler C. 2004; Jones A. 2005; Appleby J. 2010, p. 46.

ancestral dead. Large amounts of energy and dedication were expended in preparation and treatment of Milady Tărtăria's cadaver (not in grave construction and architecture), which confirms her as a much-respected person in the community, and corporate involvement in mortuary ritual.

The admix body made of the skeletal/artifactual remains was deposited in a single permanent resting place together with three tablets bearing sacred script signs kept as the only complete items. Only a small part of the osseous elements as well as the liturgical equipment, personal adornments, and identity representations were buried inside the ritual pit-grave. Most of the bones and other remains might have circulated as relicts among kinship and (familial or spiritual, local or non-local) descendents that shared a common heritage.

If liturgical tools (tablets with sacred script included) and emblematic adornments interacted with Milady Tărtăria while she was alive, contributing to her identity display as a ritual practitioner, they continued interplaying with her as a newly created ancestor and by doing so, asserted a political claim of continuity as being still part of the community. Therefore, the mortuary program appears to have focused on the recombined body of the ancestral dead as a signifier of social relations, such that even post-mortem they were imbued with social responsibilities.

The coexistence of the accumulation/deposition and circulation/sharing of physical relics and artifactual remains created and maintained lasting bonds between the newly created ancestor and persons/groups. Small portions of Milady Tărtăria's skeleton, powerful equipment, personal adornments, and effigies reunited components of the family, corporate members, devotees, and other individuals by concentrating them into the sacralized grave together with the inscribed tablets and circulating/ being in their possession to exert an influence over the physical world. From the point of view of the construction of personhood of the newly created foremother, her empowering with supernatural but immanent faculties governed two ancestral representations of Milady Tărtăria: an undivided bone/clay/spondylus/ stone individual deposited in the blessed burial; and a dividual, partible, fractal, and permeable person[947] who was nomadic, and circulating. The ancestral persona of Milady Tărtăria emerges precisely from that tension between individual and dividual aspects/relations[948].

The whole mortuary program reflects conscious decisions made by the community and (her family within it) concerning the recommended and customary social behavior considered appropriate to express and exploit relationships with such a revered deceased. Milady Tărtăria was an elderly and ill person. Her death was not sudden and unexpected. The community had time to plan ahead for the prescribed funeral procedures that, on the one side, recognized her vital role within the social unit and, on the other side, channeled the efforts aimed at marking her passage from one life to another, providing magical force for the route to the world beyond, and guaranteeing her rebirth as a novel ancestral dead to be venerated. Consistently, the out of the ordinary funeral *chaîne opératoire* was intended to achieve the change in nature of Milady Tărtăria's persona and to confirm that death did not end her active participation in the life of the community.

Re-burial and re-birth initiated a not very different mode of contribution from her in that she continued to look after the living through magic-spiritual expertise that was strengthened by appropriate liturgies and had to be maintained by periodical ceremonies performed after the final burial. The statute of her powers when she was alive most probably included distinctive ties with the extra-human world and outstanding expertise in liturgies concerning the sovereign mysteries of human, animal and vegetal reproductivity. We can interpret the elaborate and multistage funerary ritual performed at Tărtăria as a process to transform the deceased from a revered member of the living world into a spiritual being that was reincorporated into society through her ancestral state. She assumed the privileged position and responsibility to bridge the two spheres (supernatural circuit and human arena) in order to assure prosperity and fertility to living members of the household, the corporate group and the community.

The possible choice to locate the pit-grave in Milady Tărtăria's abode, which was within the boundaries of the village, would have tangibly reincorporated her into the world of the descendents. The religious motivation of the people who resided on the land of the ancestors, aimed to sustain fertility and prosperity via exploiting her otherworldly but immanent powers. From this perspective, the pit-grave might be comprehended as a context where concepts of the ancestral dead were cited and negotiated

[947] Bloch M. 1988; Strathern M. 1988; Wagner R. 1991; Busby C. 1997; Bird-David N. 1999; Chapman J. C. 2000; Fowler C. 2004; 2008; Brück Joanna 2009.

[948] LiPuma 1998, p. 57.

through a dialogue between the living and the dead rather than being interpreted as a direct index of the individual identity of that interred within it. Its location within Milady Tărtăria's habitation structure would have reflected a household context encapsulated within corporate and community frames. The consecrated pit-grave was planned as a holy and powerful focus for group identification, internal unity and strength, being imbued with the sacred quality of a common ancestor[949]. The place-value of the sacralized pit-grave was a symbol of endurance and a token of assurance that the land and/or other inalienable resources were held in trust by the living for those not yet born. Through the installation of a powerful guardian, Tărtăria society took the dramatic opportunity to recreate itself.

The Danube script was utilized at Tărtăria as a key component of social reproduction strategies based on the ancestral ideology of lineage within a kinship-based society. *Ars scribendi* functioned as a powerful mnemonic device strictly connected with the cult and social memory of a recent ancestor, linking generations and possibly communities.

Material traces of the ritualized mortuary practice presented here, document that at the Vinča A settlement of Tărtăria a quite complex kin-based social structure occurred, based upon differences in gender, social-professional abilities, kinship ties, and corporate involvement. The funerary ritual was driven by a shared corpus of social guidelines and it substantiated them. In parallel, it had roots and gave added strength to people's beliefs about magic, ancestry, and the supernatural. The inferred motivations provide input to better understand the organizing principles, life ways, philosophical-religious credo, and worldviews of the mid-size early farming communities of Southeastern-Central Europe. Finally, Milady Tărtăria's case study can contribute to establishing a firmer corporate group model for the Middle Neolithic in the Danube basin, capturing on the ground some hints about a stable concept of the descent group.

[949] Vogt E. Z. 1976, p. 99.

CHAPTER IX
THE IDENTIFICATION OF THE ACTUAL SIGNS

MARCO MERLINI[950]

THE ORIGINAL SIN OF AN INCORRECT RECOGNITION OF SOME SIGNS

Sometimes even celebrities who have been under the spotlights for decades, such as the well-known tablets from Tărtăria, still have hidden unexpected features. The international discussions concerning their engravings represent a range of different viewpoints within the scientific community. Some authors support the would-be Sumerian influence on the sign outlines and their origin in the late fourth–early third millennium BC, or even later. Other scholars date them to the late fifth millennium BC and consider them as a constitutive element of an early system of writing originated by Neolithic cultures in Southeastern Europe since the late sixth millennium BC. A third group of researchers declasses the signs to mere decorations, symbols, or even simple scratches. However, the dispute has an original sin: an incorrect identification of the shape for a number of signs from Tărtăria.

In order to decide if evidence of a script actually occurs on the inscribed Transylvanian artifacts – and not other communicational codes such as ornamentation or symbolism – one has to analyze their signs by semiotic criteria grounded on statistical patterns[951]. This requirement is impossible to satisfy without a proper recognition of the signs under investigation. Furthermore, scholarly comparison between the signs from Tărtăria and early systems of writing (e.g., Sumerian pictography, proto-Elamite, Hungarian Székely, and other runic systems) are faulty due to wrong identification of the Transylvanian engravings. Some graphic parallels can be sustained only by relying upon the supposed, and not verified, shape of the signs from Tărtăria. In addition, drawings of the famous tablets have been published by the discoverer in several articles[952] and with some differences in shape by other distinguished scholars. Why there are discrepancies in the outline of signs published by different scholars?

If a direct and careful observation and identification of the engravings on the Tărtăria tablets is mandatory in order to give or deny to them the value of written documents, it is not so easy to accomplish the task due to at least four reasons: 1) the treatment they suffered in the museum's laboratory; 2) limitations on the part of the scribe, the composition of the clay, the inscribing tool, and the engraving method; 3) the impossibility to directly examine the artifacts, and the necessity to rely on blurred photos available in literature, and the imperfect drawings published by the discoverer; 4) the subjectivity of the observer to whom the inscribed tablets are a sort of Rorschach test for the possibility that they express some sort of literacy.

Expanding upon the first problem, the original surfaces of the tablets were modified by an inappropriate backing and, confirmed by our microscope analysis, by a hydrochloric acid bath they suffered at the National History Museum of Transylvania in Cluj-Napoca just after their discovery. The acid treatment removed the calcium on the surface but destroyed the internal structure of the tablets and affected the outline of a number of signs – enlarging, extending and deforming them. In the areas of the signs outlined with a maximum concentration of calcium, the hydrochloric acid penetrated deeply, thus

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950 Unless otherwise specified, all the photos of the tablets were made by Marco Merlini and Gheorghe Lazarovici. The technical analysis of the engraving methods and the material of the tablets have been carried out by the author together with Gheorghe Lazarovici through direct examination of the tablets five times during the years 2002–2011. The most pertinent observations are from him. Considering that the tablets are sacred objects intended to be shown, the horizontal coordinates (left-right) are described from the observation point of the viewer and not from the artifacts themselves (mirror effect).

951 Marco Merlini is developing a matrix of semiotic markers and rules in order to inspect the internal structure of the sign system that flourished in Neolithic and Copper Age times in the Danube basin. The matrix is intended: a) to verify the possibility that the cultures using these signs might have expressed an early form of writing, i.e., the so called "Danube script"; b) to investigate the organizing principles of this system of writing; c) to distinguish inscriptions composed of two or more signs (without attempting to interpret them) from compounds of signs associated with other communicational codes, among which are decorations, symbols, and possible identifiers of divinity. Versions in progress of the matrix of markers and rules have been published in various articles and books (see Merlini M. 2004i; 2005b; 2005c; 2007a; 2009d). The matrix has been tested on some recent discoveries selected from the core area of the Danube civilization and from the peripheral regions in order to document the widespread use of the Danube script (see Merlini M. 2006a; 2007b; 2008d; 2008e; 2009d).

952 Vlassa N. 1963; 1964; 1976.

altering them. This is the case, for example, for the signs on the lower area of the rectangular un-drilled artifact, and those located above the hole of the other rectangular piece.

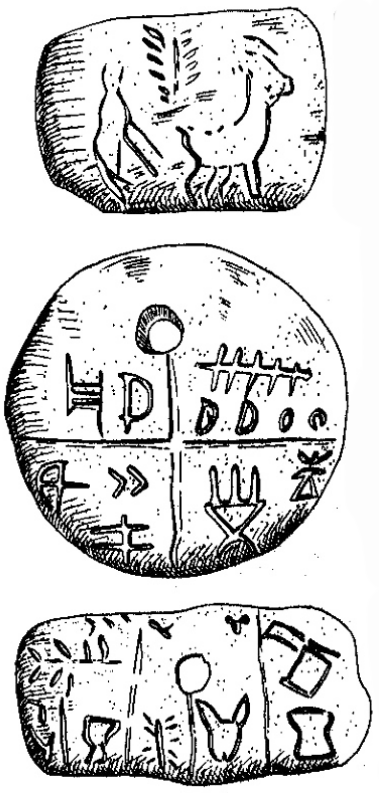


Fig. IX.1. The tablets as published by N. Vlassa 1963, p. 490, fig. 8.

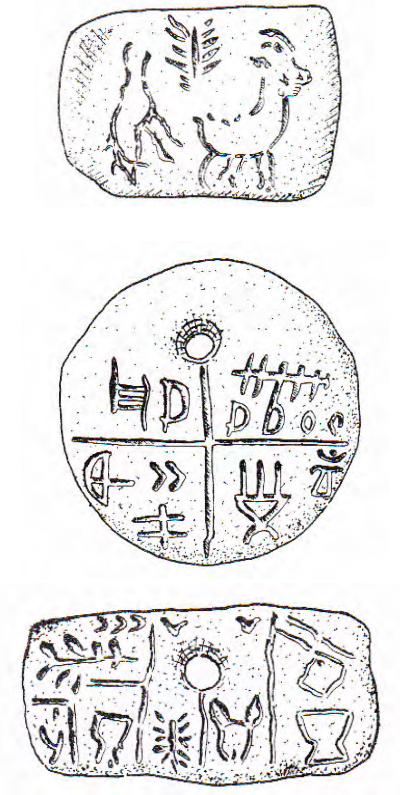


Fig. IX.2. The tablets as published by S. Winn 1981, p. 370, figs. 1–3.

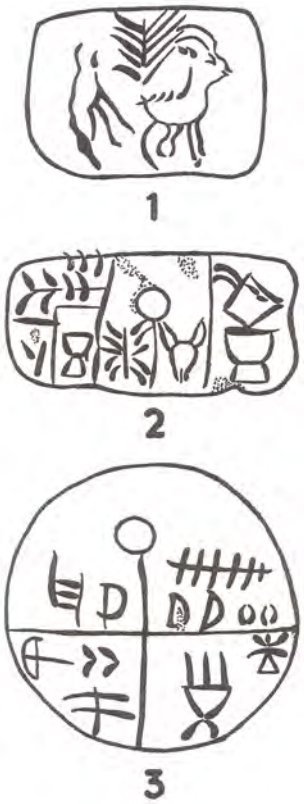


Fig. IX.3. The tablets as published by Emilia Masson 1984, p. 113, fig. 11.

Expanding upon the second group of problems (that some sign shapes are unclear due to limits from the 'scribe', the raw material, the engraving tool, and the engraving method), a few signs are badly made due to hesitations on the part of the 'scribe'. She/he had indecisions in engraving some outlines (for example, the orante-like shape on the lower right quadrant of the rounded tablet); some signs were corrected while the inscription was in progress (such as the relationship between the comb-sign and a D on the upper right quadrant of the discoid tablet); and some finger imprints were left (e.g., around the hole of the rectangular tablet, and on the tree of the other). In addition, the person made scratches everywhere. Unfortunately, a number of these scribbles have been recognized as true signs of literacy by some scholars.

Most of the unclear and indefinite outlines are not due to limits on the part of the 'scribe', but to limitations by the raw material which is composed of a very small quantity of clay and a lot of sand with clots that have been bound by a 'Neolithic cocciopesto' (pulverized lime calcium mixed with water). The matter contains numerous lumps of sand that were removed during the engraving process, an action that sometimes altered their silhouette (e.g., one of the Ds on the upper right quadrant of the disk-shaped tablet and the P/ D on its upper left quadrant). The coarseness and resistance of the composition of the tablets to precise incisions is evidenced by the imperfections of the lines comprising the huge cross that divides the circular tablet into quadrants [953].

Part of the doubtful outlines is due to the coarse, not very sharp, slanted instrument, possibly made of bone or wood, utilized to engrave the signs on sandy clay through incision, repeated pressure of the point, and impression with the point held diagonally. The method of incision affected the clarity of the shape of the signs. The 'scribe' rarely drew surgical lines but often employed a rather dull, oblique tool to plough toward the interior of the engraving in progress. To be sure of the exactness in the shape of the signs, the person composed an outline through 6–10 points and then united them without going

[953] See chapter VII, paragraph 4.

deep with the point. For this reason, she/he had sometime to rotate the tablet 90 degrees while working in order to carve alternatively with the right and the left hand. This was the case for the D on the upper left quadrant and the four circular elements on the upper right quadrant of the circular tablet.

Fig. IX.4. The area of the signs is polished due to the hydrochloric acid bath, whereas the edge is still covered by calcium (photo: J. Appelbaum).

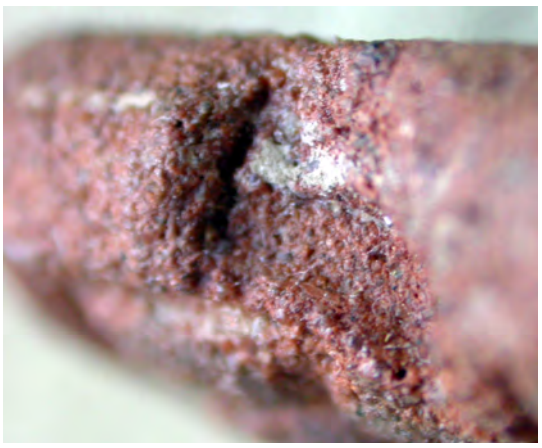


Fig. IX.5. The concentration of calcium in the tablets as evidenced by an internal view of the matter from a crack.

DISSIMILAR IDENTIFICATION OF THE SAME SIGNS ON THE SAME ARTIFACT

Adding information on the subject of the unavailability of the tablets for direct examination as a limit for the identification of the actual signs, they are under special rules of preservation and investigation being a 'treasure' of the Romanian national cultural heritage. For decades, they have not been accessible for direct observation. Generations of researchers tried to decrypt the meaning of their signs beginning with Vlassa's reproduction.

Unfortunately, the Cluj archaeologist published some of the outlines in an incorrect way, e.g. the tree motif on the not perforated tablet; the tree-shape, the two eight-like motifs on the rectangular perforated tablet; and a presumed, but nonexistent, ligature between two signs on the upper right quadrant of the discoid tablet.

We publish here, for the first time, the preliminary drawings of the tablets and their signs sketched by Vlassa on the page of the inventory of the National History Museum of Transylvania in Cluj-Napoca where he registered the finds right away after the discovery (fig. IX.6). It is interesting to note that the two aforementioned signs are not correctly joined.

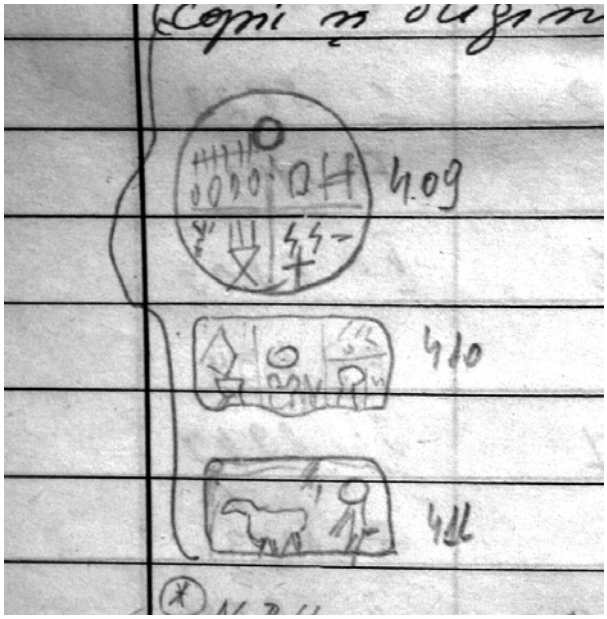


Fig. IX.6. The tablets recorded by N. Vlassa in the inventory of the National History Museum of Transylvania in Cluj-Napoca.

N. Vlassa flipped the canvas of the inscribed artifacts horizontally in order to give a perspective of the signs from their internal viewpoint and not how they are perceived with the eyes of the observer.

The signs are rendered very roughly and in many cases incorrectly on the sketch by means of a hurried and superficial examination. He had the same difficulty in the identification of some signs that we have due to deformation of their outline caused by the hydrochloric acid bath they suffered in the museum's laboratory.

Our observations corroborate the reconstruction made by Gh. Lazarovici and the present author concerning the discovery of the inscribed Transylvanian tablets.[954] We resume this in sharp synthesis.

[954] Merlini M. 2004a; 2004b; 2006c; 2006d; 2008a; 2009c; 2009d; 2009k; Lazarovici Gh., Merlini M. 2005; 2008; Merlini M., Lazarovici Gh. 2008.

The ritual pit-grave and tablets were found and unearthed during the last day of the excavation campaign when N. Vlassa was making the profile drawing in Section H (15–20 m away from Section G with the ritual pit). The tablets were wet, soft and covered with limestone. If N. Vlassa immediately discerned them as "special finds" to be handled scrupulously, he could not recognize that they bore signs and symbols. The restorer confused the sort of "Neolithic cocciopesto" utilized to bind the elements of the internal matter with a presupposed calcareous crust and thought that the abundant calcium was an intruder due to the humidity inside the pit. They did not consider that, after the tablets laid for millennia in a pit-grave filled with charcoal and ashes, the calcium could not be an intruder from the environment. The calcium inside the tablets was preserved by the environment and was extruded to the surface. This is also one of the reasons the bones of *Milady Tărtăria* are well preserved.

The tablets were subjected to a hydrochloric acid treatment in the museum's laboratory which removing not only the superficial calcium as a slip, but also destroyed their internal structure from the surface. As confessed in a late article, N. Vlassa noticed the emblematic signs and realized the importance of the discovery only after the cleaning of the tablets. In order to compensate for the fragility of the pieces, due to many cracks that appeared during the process of cleaning with hydrochloric acid (H2Cl), the museum restorator Losif Korody initiated a preservation of the pieces. After impregnating the tablets, they were placed in a vacuum autoclave, to obtain a better stability for their depth[955]. Unfortunately, the result of the treatment on the contour of the signs was devastating and irreversible. To summarize, most of the difficulty and sometimes the impossibility in detecting the actual signs are not due to the employment of the tablets in antiquity, abrasions through time, their rest in an earthy pit for more than seven millennia, inaccurate and crudely rendered incisions by the 'scribe', restive raw material, a dull engraving tool, and a particular engraving method. The problems are due to the museum's procedures.

Most of the scholars who analyzed the tablets utilized the drawings published by N. Vlassa. Those who did not, still rendered the signs quite incorrectly due to the blurred photos available in literature and the impossibility to check the tablets in their original. These limitations contributed to false interpretations of the sometimes fragmentary imagery and poorly incised marks on the tablets. See, e.g., Emilia Masson[956] (1984). In 1981, S. Winn published drawings of the tablets[957] referring to Vlassa's 1963 publication[958]. However, there are some significant discrepancies, as we will verify below.

The dissimilar identification of the signs on the same artifact by different authors is not completely explained by the aforementioned reasons. The trouble with the identification of marks with semiotic value is deeper than the inconvenience of poorly made drawings and photos. It is a cognitive process affected by a high level of subjectivity because one is inclined to notice what one expects to see. The signs on the tablets compose a sort of Rorschach test where scholars project into the inkblots the visual fantasies they already have in mind. Decoration-addicted scholars do not seem capable of perceiving the presence of any sign of writing at Tărtăria. Therefore, in making a replica of the signs, they highlight an assumed iconic code and decorative appeal, attempting to improve what they consider to be poorly done ornaments scratched by an unskilled artist.

Drawings made by scholars persuaded of the symbolic nature of the Transylvanian marks underline the recognizability of their interpretations: an altar, a cup, a beheaded bull, etc. Script-addicted researches tend to evidence semiotic features typical of a system of writing, such as standardized signs aligned in linear order. Within the last group, scholars who have in mind the script choice connected with Sumerian pictograms are inclined to point to the likenesses in shape with those early signs of literacy. On the other side, scholars with the propensity to believe in the existence of a script developed in Southeastern Europe throughout Neolithic and Copper Age emphasize the resemblances in shape with the signs of the Danube script and in organization of the semiotic space.

To summarize, the aforementioned limitations on the part of the 'scribe', raw materials, and various expectations of researchers have resulted in the publications of drawings presenting divergent sets of signs. The problematic issue of their interpreted meanings is of no concern to this discussion; the accurateness of the drawings has much more significant implications. In fact, the main question is whether or not the tablets contain the oldest known example of the Danube script.

955 Vlassa N. 1972, p. 371.
956 Masson Emilia 1984.
957 Winn S. 1981, p. 370, figs. 1, 2, 3.
958 Vlassa N. 1963, p. 490, fig. 8.

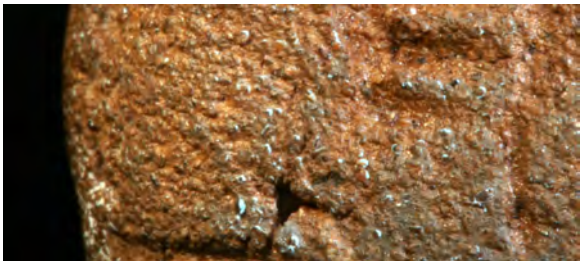


Fig. IX.7. The little mark just above the left side of the horizontal line in the upper left quadrant of the circular tablet.

A corollary issue is to decide among the engravings on the tablets which are signs and which are not. The more accurate photographs and drawings show a mignon rotated Y-like mark or V-like mark just above the left side of the horizontal line in the upper left quadrant of the circular tablet. Some researchers have been criticized for the absence of specific marks in their illustrations by colleagues who have inserted what is actually a scratch into their inventory of signs of literacy.

According to this viewpoint, the operations in the museum's laboratory of cleaning the object with hydrochloric acid and covering it with an impregnating material made the minuscule V-sign less visible, "but it must have had its own significance, if our ancestors wrote it there"[959]. These researchers find sense postulating it as "a Sun symbol, signifying the first rays of the Sun in the East... It also means the beginning"[960].

Nonetheless, even if the engraving is there on the tablet and is visible (see the image IX.7), it is hard to take it as a sign. Its eccentric location and miniaturize dimension out of the standard size utilized at Tărtăria for the proper signs exclude any semiotic value. It is a mini, but deep, fracture. The hydrochloric acid treatment not only removed the surface calcium as a slip, but also destroyed the internal structure of the matter. As we evidence below, many small cracks appear on the tablets (e.g., some mm over the double-bar cross).

An enthusiast for the supposed identification of "Proto-Sumerian pictographic ideograms" on the inscribed artifacts from Tărtăria, F. J. Badiny, discovered also a + sign that actually does not exist on the tablets, but has perfect parallels with the Akkadian sign number 74, according to Labat's system[961]. In Sumer, it had sound value PÁR, MÁS and meaning 'couple', 'other'.

SOME UNPUBLISHED ALMOST CORRECT DRAWINGS AND OUR IDENTIFICATION OF THE SIGNS

The thriller of the signs from Tărtăria has another passage difficult to explain. 'Digging' inside the archive left by N. Vlassa at the National History Museum of Transylvania in Cluj-Napoca, Gheorghe Lazarovici and the author have recovered in a dossier concerning another archaeological excavation (at Cheile Turzii) a table with sketches of the two drilled Transylvanian tablets.

Here the signs are much more accurately identified than on the published drawings.

The horizontal line that divide in two registers the circular tablet is correctly rendered as superimposed to the vertical line, being be made after.

We cannot say for sure that N. Vlassa made or commissioned the depictions, although it is highly probable. We publish the sketches for the first time here.

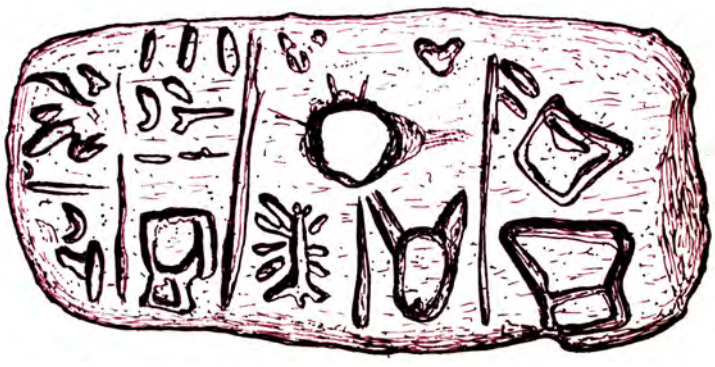


Fig. IX.8. The unpublished drawing of the oblong drilled tablet we have found in N. Vlassa's archive.

Fig. IX.9. The unpublished drawing of the circular tablet we have found in N. Vlassa's archive.

959 Friedrich Klára online.
960 Friedrich Klára online.
961 Badiny F. J. 1966.

According to our study under the microscope, the signs have been realized by incision, repeated pressure, or impression. The long incisions show irregular traces due to the deformation of the route of the lines. A good example concerns the two small circular signs on the rounded tablet. Their outline has been deformed by irregular traces. In addition, some calcareous areas have been destroyed by acid treatment (**fig. IX.14**) and have enlarged/deformed the contour of the signs (figs. IX.10, IX.12, IX.13, and IX.15,). Sometimes the contour of the sign is derailed due to irregularities in the raw material. The silhouette of the second D on the same tablet is deformed by the running of the 'scribe' into a clot of sand (**fig. IX.11**)[962].

Close examination of the tablets evidence remains of soil within the contour of several signs; e.g., on the circular tablet: in the third, fourth, and fifth arm of the pectiniform sign, in the right segment (under the second D-shape) of the large horizontal line that divides the discoid, around the cross between the upper horizontal line and the vertical line of the double-bar cross, and in the left area of the curved line of the sign T2.13b. The humus mixed with rocks and minerals can only come from the ritual pit-grave. This is another factual element in favor of the statement concerning the authenticity of the inscribed artifacts. The presence of encapsulated soil excludes the accusations that they are a modern fake not identified by N. Vlassa, or just a "game" of the discoverer.

Fig. IX.10. Detail of two deformed signs on the round tablet.

Fig. IX.11. The shape of the first D on the upper right register of the circular tablet is affected by a clot of sand.

Fig. IX.12. The silhouette of the bow+arrow sign on the circular tablet was in part destroyed by the hydrochloric acid treatment.

The marks were made under a very good light possibly at daytime, and it appears that they were engraved alternatively with the right and the left hand. A blunt, slanted point was utilized which was sometimes held vertically and sometimes obliquely. In order to have a supplementary means to identify the signs, we made photos, treating them as impressions from seals.

Fig. IX.13. The hydrochloric acid bath has acutely enlarged and deformed the contour of the signs on the rounded tablet.

Fig. IX.14. The damaged and vanished silhouette of the figure on the left side of rectangular undrilled tablet.

Fig. IX.15. The hydrochloric acid treatment has disfigured the vegetal motif on the left of the rectangular drilled tablet.

After direct examination, even through microscope magnification, we present the general drawings with the non-standardized signs of Chapter VII, with the single signs discussed in this chapter.

[962] Lazarovici Gh., Merlini M. 2005, p. 231 fig. 19, 214, figs. 21.2, 21.

A SACRAL AND PRACTICAL GEOMETRY

Despite some doubts about the realization and limitations of the raw material and the engraving tool, the shape of the signs and the scheme of their spatial organization were carefully planned by the 'scribe' who had the expertise to apply a definite set of rules, not an arbitrary approach. The person who made the tablets was not free to choose the signs and their arrangement. The restriction is evident in the instance of the D intentionally with a tail. The sign was engraved with difficulty because the point bumped into a clot of sand immediately when the 'scribe' made a pressure on it.

In addition, the person had a good knowledge in producing clay artifacts (matter, modeling, and backing) to be utilized as tablets to record a package of information, as evidenced by the 'Neolithic cocciopesto'. The manufacture of the tablets from local material proves they were not imported[963]. At the most they could come from other areas of the same region. According to our geological analysis, the sand has crystals of quartz typical of the mountain 20–25 km west from Tărtăria, very well known in Neolithic times for its gold mines.

As evidenced in the images presented below, the 'scribe' also demonstrated a high geometrical sapience in the arrangement of signs by employing the grid method that divides the space to be incised with signs into smaller 'bite sized' areas, where each square can be worked one-at-a-time. The tablets have dimensions according to a sacral and practical geometry. The most astonishing tablet is circular representing, in essence, a completeness that encompasses space and time because it is an unbroken line without beginning, direction and end. Therefore, its geometry manifests the perfection, completeness, and unity of the divinity. The depth is exactly one-third of the diameter. The error in measurement of the horizontal segments at the left and right of the hole is minimal. The puncture is exactly at the centre of a circle with the diameter located between the upper edge and the center of the big cross. Having the hole and the central cross as points of reference, two equilateral triangles can be inscribed inside the circle further subdivided into other triangles. This was the grid utilized to identify the coordinates for allocating the signs into the space and engraving their outline in a standardized form and size.

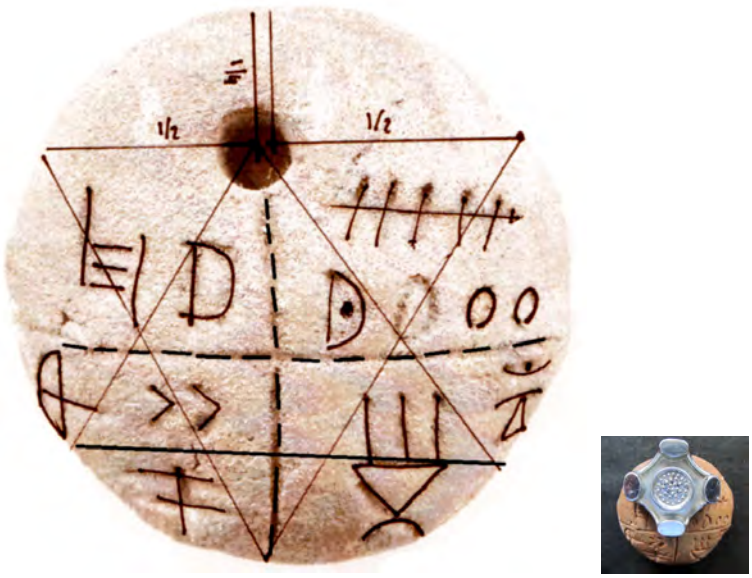


Fig. IX.16. The geometrical grid of the circular tablet. (The signs are schematically rendered).

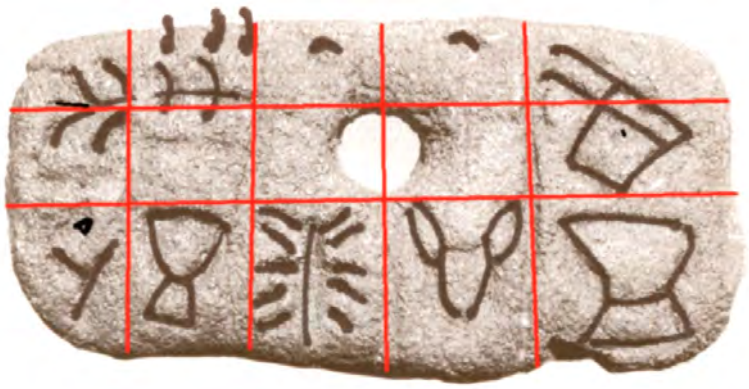


Fig. IX.17. The geometrical grid of the oblong drilled tablet. (The signs are schematically rendered).

The height of the oblong pierced tablet is 3.15 cm, exactly half of the length. It is the magic number 3.14159 ... symbolized by the π (the Greek letter for *pi*) to denote the ratio of the circumference (round) of a circle to its diameter (linear). The *pi* is constant for all circles. Every circle, regardless of size, always produces the magic number *pi* when you divide circumference by its diameter. Neolithic geometricians and mathematicians who discovered this feature realized that it is as if the *pi* was a constant relationship 'hidden' in every circle. *Pi* is the way of knowing the circle and its essence.

Centering on the hole, the length of the right and left sides are

[963] This observation is consistent with Winn S. 1981, p. 186.

exactly the same to give the possibility of wearing the object as an amulet. It was easily subdivided into three horizontal rows and five vertical lines that compose fifteen rectangular boxes that were utilized both to allocate the signs, and as a guide for the engraving of their outlines. Ten boxes are on the left of the tablets; six on the right.

One can infer the existence of the grids through an ex-post investigation of the geometrical arrangement of the signs. The 'scribe' planned them in mind or through a canvas realized with perishable material.

In short, the 'scribe' was very familiar with the utilization of clay artifacts functioning as tablet-amulet-archive, and was skilled in their precise and meaningful engraving. The fact that at Tărtăria the person had previously planned the location, shape, and size of the signs is evidenced by the short time she/he had to engrave the outlines into the tablets. The material by which the tablets are made became hard in a very short time. The silhouette of the 'orante-dancer' on the roundiform tablet might be so unclear also because it was last to be engraved when the fabric was stiffening. Archaeological experimentation has to be done on this point.

This formidable series of skills was not inherited within the household sphere. We assume that the required skills did not belong to 'normal' people of the village. It necessitated a specific long training that was possibly part of her/his spiritual instruction. Perhaps there was the necessity to hand down the wisdom of the signs from generation to generation through special instruction. It included their visual reproduction according to a highly standardized inventory and organizational norms, the way their reproduction had to be put into practice on clay, the understanding of the meaning of the signs connected with the religious-mythological system, the knowledge of the encoded sacred symbolism, and the handling of their magical power.

The Tărtăria tablets served as a means of conveying and handing down an accumulated ideological tradition regarded as a functioning information system in the magic-religious sphere. The communities of the Danube civilization paid special attention to ancestral memory and, in this regard, sacred semiotic knowledge was extremely important. The importance of the signs was so high and the taboo on the integrity of their shape so restricted that the person deviated the horizontal line around the edge of the left side of the rounded tablet in order to avoid running into the bow+arrow sign due to a fragment of ceramic. Within this fracture, the hydrochloric acid penetrated very deeply.

THE SIGNS ON THE RECTANGULAR PUNCTURED TABLET

Fig. IX.18. Two little bucrania on the upper register of the rectangular punctured tablet from Tărtăria.

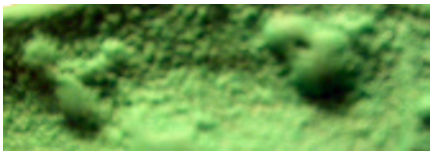


Fig. IX.19. Two mignon ox skulls when understood as a seal impression.

Fig. IX.20. The identification of the two miniature bucrania.

The oblong tablet with a drilled hole in the upper central area is convex in section and measures cm 6.3×3.14×0.85[964]. It is divided in five almost symmetric rectangular sections by four rough vertical lines[965]. The two sections on the left are divided further in two by horizontal segments. Single signs and sign groups have been included within the originated rectangular cells in the shape of a cartouche (a loop enclosing a number of different hieroglyphic symbols). The cartouche technique inscribes signs of literacy within an appropriate and reserved space organized according to a typical layout for their reading and for the highlighting of their powerful meaning. In ancient Egypt, a ring or oblong shape was used to isolate, customize, and emphasize a royal name and a personal title written in hieroglyphics.

[964] It measures 6.2 × 3.0 × 0.9 cm according to the report of the archaeologist in charge (Vlassa N. 1963).

[965] This semiotic design has not to be confused with the grid technically utilized to arrange the outline and spatial organization of the signs through fifteen boxes.

Pharaohs and sometimes dignitaries encircled the name and position in a loop that we now call a cartouche. Occasionally, one may find the name of a god or goddess in a cartouche and indeed the pharaoh was considered a deity. Later, in the demotic script, the cartouche was reduced to a pair of parentheses and a vertical line[966].

The central area of the oblong punctured tablet is framed by two vertical lines. On the upper register (above the hole), there are two mignon Ys, actually two miniature bucrania or bull horns (**signs 1a and 1b in fig. VIIC.24–25**). They have been made by three superficial punches obtained by pressuring a dull point (on the left and on the right).

They are not present in the little sketch made by Vlassa on the page of the museum inventory, but he identified them on the drawing published to illustrate the discovery. In particular, the bucranium on the right is well recognized[967]. The couple of ox skulls is erroneously considered comprised of two little Vs by S. Winn[968] who did not find any parallel in Uruk pictography, but many convergences in the inscriptions of the Vinča culture[969]. Géza Varga included these very small elements in his table of signs[970]. At the opposite, Emilia Masson considered these marks as mere abrasions of the sandy clay[971]. She did not ask herself about the singularity of the perfect symmetry in shape and location of these two "abrasions".

The six signs from the area on the left are positioned within four compartments divided by one long vertical line and two horizontal segments. In the upper register, signs are clustered within two cartouches. They are: at the top, three mini **)** signs, and below them a sign very difficult to identify due to an abrasion; at the far left, a horizontally placed vegetal motif[972] with a top and two + two branches.

The three closing brackets are aligned on the upper edge of the tablet, running over it, as three exactly alike signs repeated in a horizontal row (**sign 2 in fig. VIIC.24–25**). They have been incised with a punctiform technique as evidenced in the related image. The three crescents do not occur in the rough drawing produced by Vlassa on the page of the museum inventory. They have been quite correctly rendered in the published drawings. However, the **)** on the left is curved in N. Vlassa 1963[973], whereas the other two are linear with diagonal development.[974] They are all arched in publications by S. Winn[975] and E. Masson[976]. They are all linear in Vlassa (unpublished). There are actually three slightly curviform **)**s. They are not three arrows as maintained by K. Friedrich[977].

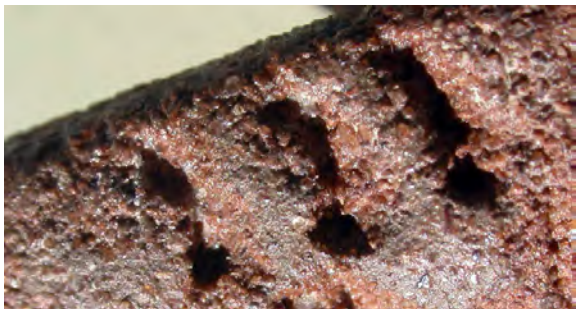


*Fig. IX.21. The three **)** on the oblong drilled tablet from Tărtăria highlighting the engraving technique used by the 'scribe'.*

Fig. IX.22. The three crescents when rendered as a seal impression.

Fig. IX.23. The identification of the three crescent moon signs.

The deteriorated sign that is under the triple crescent, at the right of a horizontal tree-bought motif, seems at first sight to be comprised of a horizontal Y, a mignon, punctiform, a not very clear mark similar to a stroke, and a closing bracket-like sign (**sign 3a in fig. VIIC.27/28**). However, it is an actual individual sign. It is not the continuation of the horizontal vegetal-shape as sketched by Vlassa on the page of the

966 Merlini M. 2009d, p. 327–8.
967 Vlassa N. 1963, p. 490, fig. 8.
968 Winn S. 1981, p. 176, tab. V.
969 Winn S. 1981, p. 191, tab. VI.
970 Varga Géza 1993, p. 147.
971 Masson Emilia 1984.
972 It is not a single sign as stated by N. Vlassa (1963).
973 Vlassa N. 1963, p. 490, fig. 8.
974 This is also Marija Gimbutas' rendering in 1974/1982, p. 88, fig. 43a.
975 Winn S. 1981, p. 370, fig.2.
976 Masson Emilia 1984, p. 113, fig. 11.
977 Friedrich K. online.

museum inventory and in Winn 1981. They both recognized a long tree with four branches pointing up and three branches down. The sign under scrutiny is actually divided by means of a vertical segment that was not noticed by N. Vlassa in 1963[978], but is present in Vlassa (unpublished). Emilia Masson (1984) realized the shape, but she rendered it as a decorative curviform element. In the next chapter, we individuate this sign as another vegetal motif.

Fig. IX.24. The difficult to detect sign on the rectangular holed tablet from Tărtăria

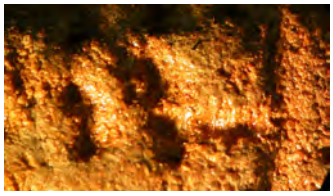


Fig. IX.25. The difficult to recognized sign photographed under a microscope.

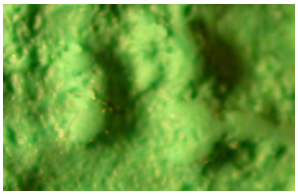


Fig. IX.26. The vegetal motif under the moonths (three lunar months) when assimilated to a seal impression.

Fig. IX.27. The identification of the vegetal motif.

The horizontal vegetal element is a top, plus four branches (sign 3b in fig. VIIC.27–28). It has been incised with a punctiform technique employed on pottery at Turdaș and, subsequently, in the Cucuteni – Trypillia culture[979]. The silhouette is not very clear. According to A. Falkenstein[980], the doubtful outline is due to the coarser instrument with which it was impressed, possibly bone or wood. However, as evidenced in the fig. IX.15, the hydrochloric acid treatment has disfigured its outline.

Fig. IX.28. The vegetal element on the rectangular holed tablet from Tărtăria (graphically highlighted).

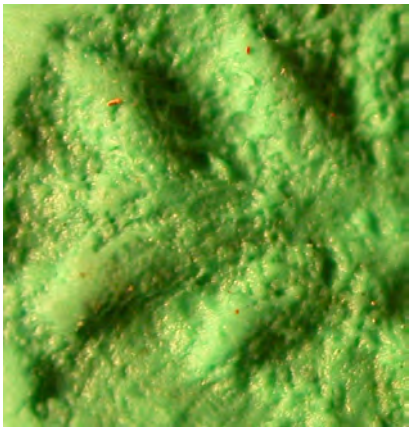


Fig. IX.29. The vegetal motif when assimilated to a seal impression.

Fig. IX.30. The identification of the tree-bought sign.

Fig. IX.31. The y-like sign plus stroke on the rectangular perforated tablet from Tărtăria.

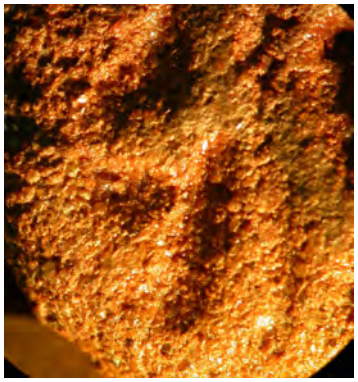


Fig. IX.32. The y-like sign plus stroke photographed under a microscope.

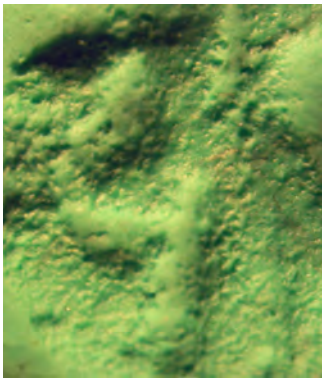


Fig. IX.33. The y-like sign plus stroke when understood as a seal impression.

Fig. IX.34. The identification of the y-like plus stroke sign.

978 Vlassa N. 1963, p. 490, fig. 8.
979 Masson Emilia 1984, p. 118.
980 Falkenstein A. 1965, p. 269.

Below the tree-bough sign, the abstract root-sign ⟩ (sign 4 in fig. VIIC.27–28) is distinguishable within the compartment on the lower left. It is surmounted by a mignon stroke/drop. The author discussed this for a long time with Gh. Lazarovici because at first, the sign on top seemed to be a miniature with a very ruined segment. Both the signs have been strongly affected by the acid treatment at the museum, this sign in particular. It is rendered as a nearly vertical stroke by N. Vlassa[981] and by S. Winn 1981[982]. It is an opening bracket in N. Vlassa (unpublished). According to Emilia Masson, it is a mere abrasion of the sandy clay. The difficulty in identifying these two signs is evidenced by the rough drawing made by Vlassa on the page of the museum inventory that depicts only an implausible zigzag.

In the next compartment, there is a sign similar to an eight-like figure or an unsqueezed hourglass-like form, if recognized in a standardized shape (sign 6 in fig. VIIC.29a–c). It is similar to another sign that is present in the lower part of the section at the far right of the tablet[983]. Both the hourglass signs have been incorrectly identified by N. Vlassa[984] in his publications, because he forgot the medial line[985]. The rendering in the unpublished sketch is correct. The 8-shape under scrutiny is divided by the abraded sign above by a line that was unnoticed in the drawings of the articles published by the Cluj archaeologist, but was detected by Emilia Masson[986] and N. Vlassa (unpublished).

The lower register of the central area of the tablet is symmetrically subdivided in two sections by a vertical line. On the left section, a vegetal or astro element occurs (sign 7 in fig. VIIC.32–33). It is made of a cross and eight diagonal strokes incised with punctiform technique. The published drawings interpret the shape more or less correctly. However, having in mind the pictogram of a tree, they all render the vertical arm longer than the horizontal one even if the sign is actually based on a Greek cross with four equal arms (*crux quadrata*).

Fig. IX.35. The ⧖ on the left area of the rectangular punctured tablet from Tărtăria.

Fig. IX.36. The first ⧖ photographed under microscope.

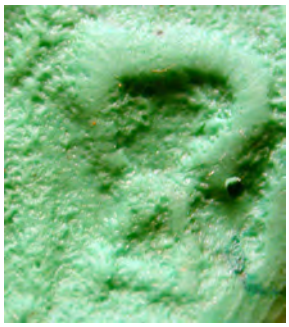


Fig. IX.37. The first ⧖ when considered as a seal impression.

Fig. IX.38. The identification of the first ⧖ sign.

As the author will analyze in the subsequent chapter, the different identification in outline is essential for the recognition of the meaning of this sign.

Fig. IX.39. The ✳ on the rectangular punctured tablet from Tărtăria.

Fig. IX.40. The ✳ photographed under microscope.

Fig. IX.41. The ✳ when assimilated to a seal impression.

Fig. IX.42. The identification of the ✳ sign.

[981] Vlassa N. 1963, p. 490, fig. 8.
[982] Winn S. 1981, p. 370, fig. 3.
[983] Falkenstein A. 1965; Masson Emilia 1984.
[984] Vlassa N. 1963, p. 490, fig. 8.
[985] On this issue, see also Masson's point of view (Masson Emilia 1984).
[986] Masson Emilia 1984, p. 113, fig. 11.

Fig. IX.43. The animal head on the rectangular punctured tablet from Tărtăria.

Fig. IX.44. The animal head on when rendered as a seal impression.

Fig. IX.45. The identification of the animal head sign.

In the sketch on the page of the museum inventory, N. Vlassa depicted the sign as a Y possibly confusing it with the unrecognized form at the far left of the tablet. A naturalistically rendered animal head occurs on the right section under the hole (sign 8 in fig. VIIC.34). The outline was deformed by acid treatment in the museum. In the next chapter, the author will discuss about the possible identification of the species.

The line that divides the space between the animal head on the left and a scene on the right was deeply traced by a sharp point, possibly from flint or a not refined bone. It is one of the very few cases in which the 'scribe' changed the engraving tool.

The sign incised on the upper register of the far right side of the tablet (sign 10 in fig. VIIC.35) was made by incising points at the extremities of the upper horizontal segment that were then united by a line. Subsequently the 'scribe' traced the diagonals and then the bottom line. The identification of this sign is quite problematic and divergently recognized by the different authors. The incision is faded and difficult to be diagnosed also because the 'scribe' made at first the rhomboid and then the oblique parallels. On the page of the museum inventory, N. Vlassa described a rough lozenge collapsing over a clepsydra-like form. The Cluj archaeologist did not notice any mark within the rhomboid shape[987]. S. Winn recognized one dot located in its upper area[988]. E. Masson pointed out two successive small diagonal segments[989]. N. Vlassa (unpublished) distinguished a long squeezed triangular form arranged in a diagonal. Actually, there is a little dot immediately under the long oblique line.

Fig. IX.46. The rhomboid form on the rectangular holed tablet from Tărtăria.

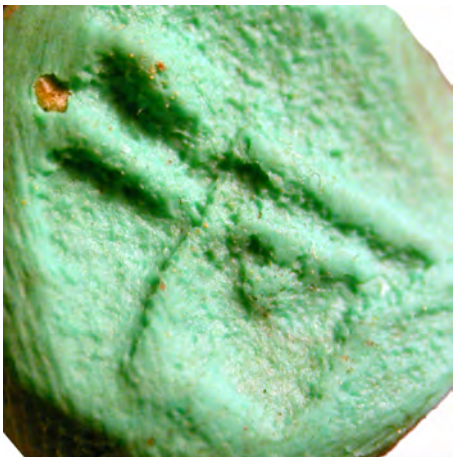


Fig. IX.47. The rhomboid sign when acting as a seal impression.

Fig. IX.48. The identification of the rhomboid sign.

The  shape is paradigmatic of the difficulties in detecting the actual signs recovered at Tărtăria because their identification is affected by the expectations of the observer. In his publications, N. Vlassa depicted three distinct signs: an oblique U, a diagonal stroke and a rhomboid[990]. A. Falkenstein divided the sign into three (?!?) horns and a very schematized head of an animal viewed by profile in order to give a

987 Vlassa N. 1963, p. 490, fig. 8.
988 Winn S. 1981, p. 370, fig. 3.
989 Masson Emilia 1984, p. 113, fig. 11.
990 Vlassa N. 1963, p. 490, fig. 8.

true-to-nature meaning to the sign, and to find at the same time east-west contacts via comparability with the pictographs from Uruk[991]. J. Makkay opposed a single sign hypothesis identifying it as a bull's head[992].

E. Masson emphasized the curves of the supposed horn-shape element and the rendering of the diagonal strokes as eyes[993]. S. Winn reviewed this sign, regularizing it in pictogrammatical fashion, , then he equalized it to the sign 175: [994]. He considered the sign 175 as a pictogram[995]. Reorganizing his inventory in 2004, the scholar inserted the sign among the "Goddess-identifiers" based on an unknown rationale.

Fig. IX.49. The second on the rectangular perforated tablet from Tărtăria.

Fig. IX.50. The second when assimilated to a seal impression.

Fig. IX.51. The identification of the second .

The two diagonal parallel lines on the upper left of the rhomboid shape are completely missed from his corpus of signs. According to Gh. Lazarovici, the motif is depicting a cup pouring a liquid and has to be connected with the sign engraved below which describes another cup[996]. Mihaela Orescu, thought to have recognized a double axe similar to the heavy-bladed tool "in use at Crete", reproduced the element according to the related shape[997].

The divergent graphic identification of the rhomboid is a good example of how it is strongly influenced by the expectations concerning dating, ascertained culture, and meaning of this sign. It is not so easy so decide between an animal head, a Goddess-identifier, a cup and an axe because the 'scribe' incised at first the rhomboid outline then separately the horns or the handles. However, all the hypotheses are not completely convincing.

Regarding the head of an animal, if one can discern a dot that might resemble an eye, there was no reason to trace the second diagonal line inside the rectangle. Concerning the Goddess-identifier, S. Winn did not document his statement that remains completely speculative. About the cup, a vessel with such two parallel handles is very strange and without strong archaeological parallels. With reference to the axe, the Cretan weapon had two blades and not one.

Under the rhomboid sign, there is an eight-like shape or unsqueezed hourglass form (sign 9 in fig. VIIC.35) that calls to mind the similar sign cited when we explored the area of the tablet on the left. It is interesting to note how it was rendered in a quite different shape by N. Vlassa in 1963 in his unpublished sketch, as well as by the Cluj archaeologist and Emilia Masson.

THE TABLET OF CIRCULAR SHAPE

The discoid drilled tablet was much less used than the other perforated one. It measures 6.1 (height) × 6.2 (width) × 2.1 cm (depth)[998]. The hole is 0.81 cm in surface diameter, 0.74 cm in internal diameter and

991 Falkenstein A. 1965.
992 Makkay J. 1969; 1973, p. 4.
993 Masson Emilia 1984, p. 113, fig. 11.
994 Winn S. 1981, p. 182, tab. V.
995 Winn S. 1981, p. 37, tab. I.
996 Lazarovici Gh. 2002.
997 Orescu Mihaela 2004.
998 The measurements are 6.1 × 6.0 × 2.1 cm according to the report of the excavator (Vlassa N. 1963).

0.65 cm in back external diameter. In analogy to other emblematic artifacts such as the Karanovo seal, a cross-like partition divides the signs into four symmetric quadrants that clearly indicate different parts of the message. The vertical line was engraved first. The scribe utilized the same sharp point we have noticed when investigating the line that divides the two cells at the right of the tablet. Then the person traced the horizontal one. In engraving the vertical line, the 'scribe' bumped into a little stone mid-way to reaching the centre of the cross where she/he ran into another one (see fig. IX.52).

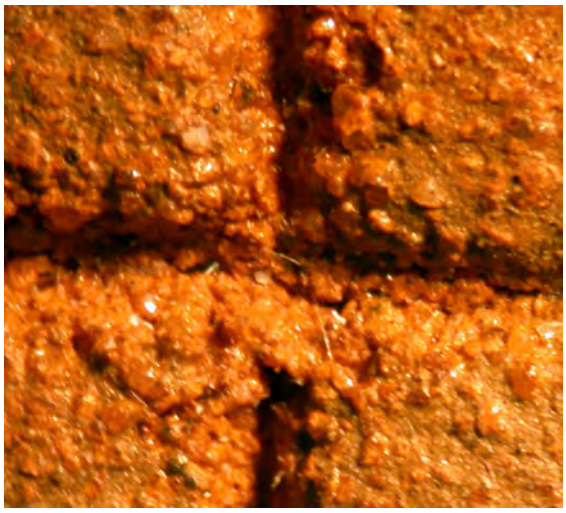


Fig. IX.52. The running of the long vertical line that divides in two the artifact was affected by a very small pebble as magnified under microscope.

The tablet is incised with twelve or thirteen emblematic marks that follow a more abstract code than the ones on the other tablets from Tărtăria. One can easily discern, from the upper left quadrant and proceeding clockwise: elements of a ladder/chair shape, a P/D, a comb-like sign with five notches, two Ds, two little circles, a praying-dancing person or, alternatively, two distinct signs, an altar, angular shapes, a bow+arrow sign, and a Lorena cross (i.e., a cross with two horizontal bars).

The contour of the signs is very large and sometimes not very clear because of the incision method often utilized: lines have not been drawn by a razor-edged tool, but by a blunt and oblique point that frequently ploughed toward the interior. Above all, the acid treatment deformed and enlarged the outline of some signs. In a number of instances, the vertical lines of the signs have been incised by rotating the tablet of 90 degrees. This particular engraving method is obvious for many signs, e.g., the ladder and the D with a tail from the first quadrant. All the signs have been carved utilizing the same point, except for the upper part of the 'orante – dancer'.

Fig. IX.53. The ladder/chair shape on the discoid tablet from Tărtăria.

Fig. IX.54. The ladder/chair form when assimilated to a seal impression.

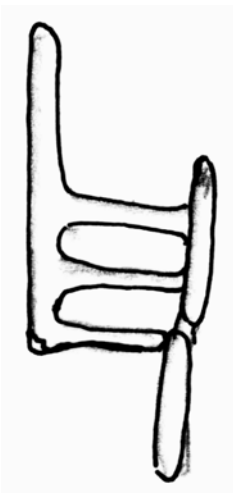


Fig. IX.55. The identification of the 'ladder/chair' sign.

Starting from the quadrant high on the left, one can observe a sign that can vaguely recall a lame tri-rung ladder or a limping chair due to the absence of a leg (sign 2 in fig. VIIC.8–9). The 'scribe' signed the extreme points with small dots made with the tool, then united them through an incision. All the authors correctly rendered correctly this figure. Just N. Vlassa, sketching a rough drawing on the page of the museum inventory, invented a throne in Tutankhamen style: .

On the right of the 'ladder/chair' there is a sign *in media res* between a D-like and a P-like form (sign 3 in fig. VIIC.10–11). The contour was acutely damaged by the hydrochloric acid treatment that, working in deep, destroyed the internal structure of the matter. In particular, the upper segment of the vertical line is very ruined. It was made by the usual tool with an oblique point that has been handled at first vertically, to sign four points of reference, and then diagonally to trace the lines. The first to be incised

was the vertical line that was traced by rotating the object and working from the top down. At the end, the 'scribe' ran into a mini pebble which altered the shape of the sign. Then the person made the curve from top to the middle of the arch, and finally the curve from the bottom to the middle of the arch. The second tail is intentional, although very fine and very superficial. It was made lightly pressing the point of the instrument held diagonally. We do not know the reason for this mark, but direct observation excludes it as an element composing the outline of the sign.

Fig. IX.56. The D-like sign on the rounded tablet from Tărtăria.

Fig. IX.57. The D-like sign when assimilated to a seal impression.

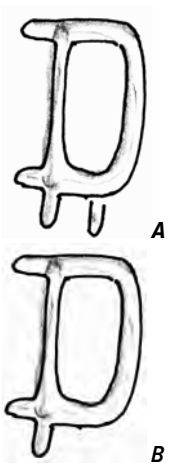
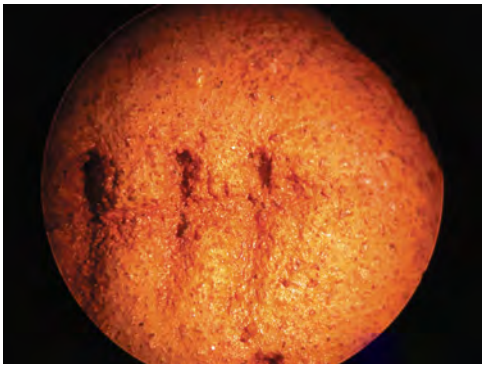


Fig. IX.58. Identification of the D-like sign. A – The actual sign on the tablet. B – The sign according to the intention of the 'scribe.'

A



B

Fig. IX.59. A – The sign representing a cross with vertical arms on the discoid tablet from Tărtăria. B – Under the microscope.

A

B

Fig. IX.60. A – A different perspective of the pectiniform (Photo Appelbaum J.). B – The sign rendered as a seal impression.

Fig. IX.61. The identification of the pectiniform sign.

The original idea of the 'scribe' was to engrave a D with a tail pointing downward, but she/he had the immediate necessity to remove a clot of sand after having started the incision from the lower left side of the D, after rotating the object 180 grades. The D with a tail emerged after a series of corrections. Therefore, the proper sign is D and neither a D nor a D. The shape of this sign is ample and rounded. It is completely different from the Ds engraved on the quadrant on the right. Vlassa properly recognized the sign. Masson prolonged the tail, converting the sign definitely into a P. In the preliminary drawing made on the page of the museum inventory, Vlassa depicted a roundiform shape slightly open at the bottom, which is actually another sign located in the next quadrant.

In the upper right quadrant, there are five shapes clumsily incised and then expanded, extended, and deformed by the hydrochloric acid treatment as witnessed by the incorrect reproduction published by N. Vlassa[999]. As mentioned at the opening of the present chapter, N. Vlassa linked two separate signs by an nonexistent ligature: a cross with five vertical arms (**sign 4 in fig. VIIC.12–13**) and a D-like sign (**sign 6 in fig. VIIC.12–13**)[1000]. Winn's drawing emphasized the supposed joining of the two signs[1001]. It is significant to observe that N. Vlassa separated them very clearly in the unpublished drawing. Unfortunately, a compound sign composed by a cross with several arms and a D shape has been reproduced and discussed as a typical sign of the Danube civilization by several scholars: [1002]. Pectiniform and D are actually nearly juxtaposed because the 'scribe' incised at first the cross sign. Then she/he engraved two Ds and two smaller circles on the lower register.

The central arm of the cross is longer than the other ones and points towards the bigger D, even if without touching it. If they do not compose a single sign, they are nonetheless in close relationship.

The association between these two key signs is an important detail for the understanding of the meaning of the signs engraved on this quadrant, as we substantiate in the next chapter.

The cross has five vertical arms plus a very small one, as correctly recognized by S. Winn (1981), Emilia Masson (1984) and N. Vlassa (unpublished), whereas Vlassa published a drawing identifying only five arms[1003]. Careful direct examination excludes the sixth mini-arm as a constitutive element of the sign. It was only a coordinate point for the 'scribe' who utilized the incision method to engrave the sign. She/he traced at first the horizontal line, then the vertical arms from up to down.

The other signs occurring on the lower register of the upper right quadrant are, from left to right: a D shape in form of [D] (**sign 3 in fig. VIIC.6b**), the aforementioned D shape, an O (**sign 7 in fig. VIIC.6b**), and [O] (**sign 8 in fig. VIIC.6b**).

All the signs have been engraved with a punctiform technique. Both the D shapes have been made by rotating the object and dotting-plowing the lines always toward the interior. The intention of the 'scribe' was to trace a sequence of four signs starting from a big D and ending with a little open O.

In the sketch made on the page of the museum inventory, N. Vlassa depicted four squeezed circles. He published the two Ds as similar and as regular letter-like signs[1004]. However, the complex silhouette of the D on the left, due to the internal little sign that the scribe wanted to engrave, was ruined by the point running up against a clot of sand (**see fig. IX.11.**). T

Fig. IX.62. The inexistent ligature between the pectiniform sign and the D-like sign as evidenced under microscope.

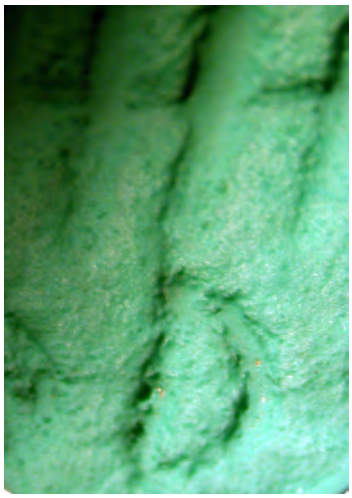


Fig. IX.63. The 'as a seal perspective' documents the interspace existing between the two signs.

[999] Vlassa N. 1963, p. 490, fig. 8.

[1000] See also Masson Emilia 1984.

[1001] Winn S. 1981, p. 370, fig. 2.

[1002] Winn S. 1981, p. 36, tab. I, p. 190, tab. VI. The classification system elaborated by S. Winn in 1981 contemplates the sign [1002] (165) as resulting from a ligature between a four-branched line (sign 27), and a D (sign 176). The scholar inserted it among the pictograms (Winn 1981, p. 64). The [1002] is present as DS 177 in Winn's inventory (2004) that listed it among the ideographs/pictographs. The same sign is registered OE 221 in H. Haarmann's 1995 repertory, which inscribed it among the simple and complex abstract signs. It is code 323 in Gh. Lazarovici's catalogue.

[1003] Vlassa N. 1963, p. 490, fig. 8.

[1004] Vlassa N. 1963, p. 490, fig. 8.

The Cluj archaeologist was aware of this fact and about the intention of the 'scribe' to engrave a particular D shape when, in the unpublished sketch, he depicted a sign similar to a beach umbrella with an imposing and down-pointing 'tail'. A sharp tail is present in the drawing published by S. Winn[1005]. Emilia Masson regularized the sign as a normal D with an abrasion inside[1006].

According to Vlassa's correct rendering in the unpublished drawing, any of the four rounded signs positioned in succession has its own shape. The proper sequence of the signs in accordance with the intention of the 'scribe' is therefore: D – D – O – O. The engraving method contemplated the creation of a sinopia through a sequence of points was subsequently filled by continuous incision in order to make the contour of the sign.

The first D is individuated by 6 point, the second one by 10. The first circle is based on 6–7 points, the second one on 6. The second D, indicated by the medial arm of the pectiniform, is a little bigger than the other. This is not without consequence for the interpretation of the meaning, as we corroborate in the next chapter.

In the left down quadrant, three signs are clearly incised although deeply affected by the hydrochloric acid bath (see fig. IX.13). They are a bow+arrow form, a double angle pointing right, and a Lorena cross.

The sign at the edge of the lower left quadrant (sign 9 in fig. VIIC.6b, 16) was dissimilarly rendered by the different scholars. According to N. Vlassa (1963)[1007] and Vlassa (unpublished), the shape is very symmetrical being composed by a Greek cross encompassed by a semicircle. In the second drawing, the arrow is passing the arch on the left.

Fig. IX.64. A. The sequence of D and discoid signs on the circular tablet from Tărtăria. B – Under the microscope.

Fig. IX.65. The sequence of D and circular signs when assimilated to a seal impression.

Fig. IX.66. The identification of D and rounded signs.

Masson correctly extended the horizontal arm on the right side[1008]. In the preliminary drawing made by N. Vlassa on the page of the museum inventory, we find a simple .

The sign has actually a recurved bow+arrow shape because the horizontal line (the 'arrow') is very long, about three times the supposed radius of the circle. It was incised with intention. In order to engrave the arched line, the 'scribe' utilized a fine and sharp point or, after the incision, compacted the clay pressing the edge of the artifact with the fingers. The person ran into a lot of white calcium and found a little stone in the lower area of the bow. For these reasons, the shape is not geometrically exact. In addition, the silhouette of the sign has been destroyed in part by the hydrochloric acid

[1005] Winn S. 1981, p. 370, fig. 2.
[1006] Masson Emilia 1984, p. 113, fig. 11.
[1007] Vlassa N. 1963, p. 490, fig. 8.
[1008] Masson Emilia 1984, p. 113, fig. 11.

treatment suffered at the museum (see also fig. IX.12). A resulting fracture is evident around the middle of the 'arrow'.

The second sign is evidently comprised of two angles pointing right (sign 10 in fig. VIIC.6b, 16). However, E. Masson rendered it in a curvilinear style as though it was a decorative element[1009]. Inexplicably, in his unpublished sketch, N. Vlassa recognized the ≫ as a Z>.

They are two vertical zigzags in the sketch made by the Cluj archaeologist on the page of the museum inventory.

Fig. IX.67. The bow+arrow on the circular tablet from Tărtăria.

Fig. IX.68. The bow+arrow photographed under a microscope.

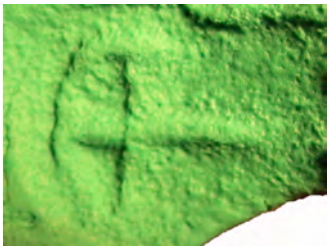


Fig. IX.69. The bow+arrow when understood as a seal impression.

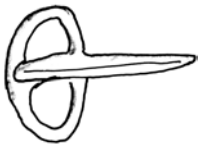


Fig. IX.70. The identification of the bow+arrow sign.

To create the > in sequence, the 'scribe' made a pressure with the rounded point held obliquely, and then moved it while going a little deeper. As noticeable in the photos (fig. IX.13, fig. IX.71 and IX.72), a huge quantity of hydrochloric acid destroyed the shape. There was a lot of calcium and the acid went very deep.

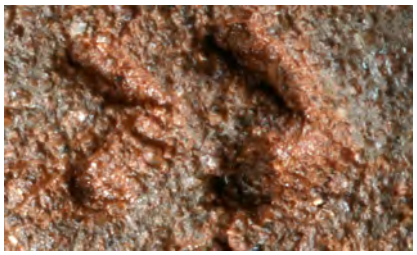


Fig. IX.71. The double angle pointing right on the circular tablet from Tărtăria.

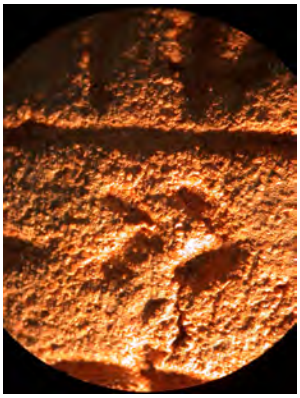


Fig. IX.72. The ≫ photographed under microscope.

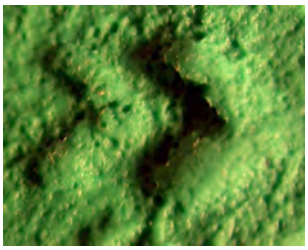


Fig. IX.73. The ≫ when assimilated to a seal impression.

Fig. IX.74. Identification of the ≫.

The double-bar cross (sign 11 in fig. VIIC.6b,18) has two horizontal beams of equal length that are particularly long. It was detected as composed by straight lines by N. Vlassa (both 1963 and unpublished)[1010] as well as by S. Winn[1011], whereas E. Masson utilized curviform lines[1012]. In the sketch made by N. Vlassa on the page of the museum inventory, the sign was reduced to an elementary +.

The engraving technique utilized by the 'scribe' is incision. The upper horizontal line was made at first, from left to right. Then the vertical line followed (from up to down), and finally the second horizontal line.

In the quadrant down on the right, an asymmetric altar-shape (sign 12 in fig. VIIC.6b, 19) and an 'orante-dancer' occur or, alternatively, two as distinct signs (sign 13a and 13b in fig. VIIC.6b, 20–22).

[1009] Masson Emilia 1984, p. 113, fig. 11.
[1010] Vlassa N. 1963, p. 490, fig. 8; unpublished.
[1011] Winn S. 1981, p. 370, fig. 2.
[1012] Masson Emilia 1984, p. 113, fig. 11.

The hydrochloric acid bath deformed and enlarged the contour of the 'altar' in a very evident way. Because of the method of incising the signs, its body is based on a triangle whose contour has a linear interior and an arched exterior.

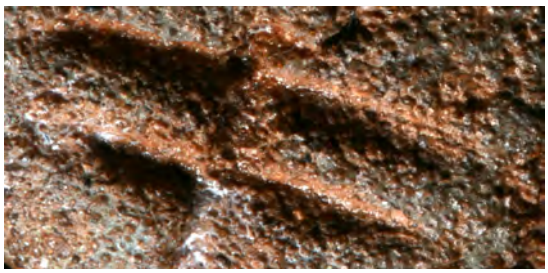


Fig. IX.75. The double-bar cross on the circular tablet from Tărtăria.

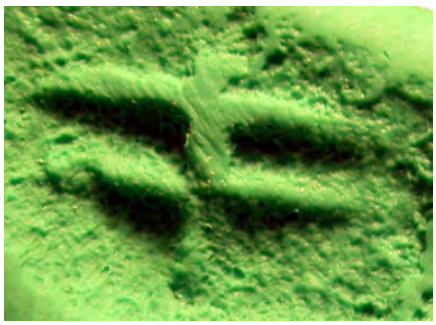


Fig. IX.76. The Lorena cross when rendered as a seal impression.

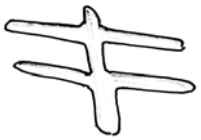


Fig. IX.77. The identification of the double-bar cross.

N. Vlassa underlined the linear feature[1013], S. Winn[1014] and E. Masson the curviform one[1015]. The base of the altar-shape has a clear arched outline. Inexplicably, the unpublished sketch by N. Vlassa regularized it in straight lines. The three vertical lines have been made by applying a pressure with the point and than moving it from top to down.

Fig. IX.78. The altar-like sign on the rounded tablet from Tărtăria.

Fig. IX.79. The altar-like sign photographed under microscope.

Fig. IX.80. The altar-like sign when rendered as a seal impression.

Fig. IX.81. The identification of the 'altar' sign.

As for the instance of the 'altar', the method of incising the trapezium on which the figure with open raised arms is based rendered its outline with a linear interior and an arched exterior. The discoverer highlighted the curved shape in the published articles[1016] and the linear outline in the unpublished drawing. An equilibrate reproduction was made by Emilia Masson[1017]. According to her, the 'orante' was not initially previewed by the person who made the tablet. In fact, at the first sight the upper part of the sign seems to be engraved with a different and finer tool than all the other signs of the tablet. It was not the case, but the 'scribe' traced at first a series of points then united them through an incision.

The base was incised by means of the usual point. At first, the 'scribe' traced the upper horizontal line, colliding on the right with a little stone that affected the precision in shape. Subsequently, the person incised the diagonal on the right and then the diagonal on the left. Finally, it was the turn of the horizontal bottom. All the horizontal lines have been traced from left to right. Even the fine arched line that is the base of the upper part was made from left to right. As mentioned in a previous chapter, a mini sphere is distinguishable at the end of the left arm (observer viewpoint).

[1013] Vlassa N. 1963, p. 490, fig. 8.
[1014] Winn S. 1981, p. 370, fig. 2.
[1015] Masson Emilia 1984, p. 113, fig. 11.
[1016] Vlassa N. 1963, p. 490, fig. 8; 1976.
[1017] Masson Emilia 1984, p. 113, fig. 11.

Whereas N. Vlassa correctly divided the upper and lower registers of the 'orante-dancer', E. Masson placed them side by side. The huge interspace between the two elements that compose the person with open raised arms (torso and arms+head) and the resemblance of the small upper one with the Mesopotamian pictogram indicative of the rising sun induce some scholars to recognize not a human figure, but two separate elementary signs vertically aligned[1018].

Fig. IX.82. The 'orante-dancer' crudely incised on the circular tablet from Tărtăria.

Fig. IX.83. The 'praying person' photographed under the microscope.

Fig. IX.84. The 'orante-dancer' sign when acting as a seal impression.

Fig. IX.85. The identification of the 'orante-dancer' sign.

In the sketch made on the page of the museum inventory, N. Vlassa solved the uncertainty rendering the upper part of the sign as a  with hooks () and omitting the trapezium.

If the identification of the two outlines is quite accomplishable through direct observation, the decision if it belongs to one or two signs is problematic. Against the first solution, there is the disproportionate interspace between the two graphic elements. Against the second, there are the arms/hands that seem to complete the upper line of the trapezium. In Chapter VI of this book, Gh. and Cornelia-Magda Lazarovici opt for the two-sign solution.

THE SCENE ON THE RECTANGULAR UNDRILLED TABLET

The rectangular unpunctured tablet measures 5.3 × 3.6 × 1.5 cm[1019].

Fig. IX.86. The tablet fits perfectly the left hand

Fig. IX.87. The fingertips of the 'scribe' over the horns of the animal.

The sand of this tablet is less fine that the sand of the other two. It fits and is very comfortable in the left hand. The fingertips of the 'scribe' are still now discernable on the tree and on the horns of the animal located on the right area of the tablet. Maybe she/he had in mind to correct or cancel some marks. The engraved face is totally occupied by a scene composed of three separate images, from left to right: a zoomorphic or anthropomorphic form, a standing vegetal motif, and a quadruped. Some lines have been highlighted with black resin in original.

[1018] Makkay J. 1968, p. tab. XLV, figs. 36–38.

[1019] It measures 5.2 × 3.5 × 1.6 cm according to the report of the excavator (Vlassa N. 1963).

The figure on the left is not very clear even if some elements have been highlighted by filling the contour with black resin. The silhouette is so sketchy ("esquissée", observed Emilia Masson[1020]) that some scholars interpret it as a jumping four-footed animal with the anterior legs along the body, while others decode it as a carnivore[1021] or even as a human being[1022]. This is the interpretation advanced by Gh. and Cornelia-Magda Lazarovici in Chapter VII.

A. Falkenstein highlighted the ambiguity of the drawing, but expressed the propensity to interpret it as a rearing animal[1023]. According to S. Winn, the figure is "unrecognizable and cannot be analyzed"[1024].

Fig. IX.88. The human being or animal on the left area of the rectangular, unholed tablet from Tărtăria.

Fig. IX.89. The human being or animal photographed under microscope.

Fig. IX.90. The human being or animal when rendered as a seal impression.

In the upper central area of the tablet, a tree towers. Its left braches[1025] are longer, more refined and engraved in a more deep and effectual way. The same sign is two times present on the other rectangular tablet.

Fig. IX.91. The tree on the rectangular undrilled tablet from Tărtăria.

Fig. IX.92. The vegetal motif photographed under a microscope.

Fig. IX.93. The vegetal motif when acting as a seal impression.

The animal on the right of the tree is engraved more carefully and naturalistically than the creature on the left[1026]. Some elements of the outline have been highlighted with black resin.

Most of the scholars decode it as a goat "proceeding to the right"[1027]. According to Emilia Masson[1028], it is a marching caprid. In Chapter VII, Gh. and Cornelia-Magda Lazarovici explain the image as a herd of goats. N. Vlassa interpreted the animal as a female deer[1029]. According to other scholars, it is a bovine, maybe pulling a plough.

1020 Masson Emilia 1984.
1021 Makkay J. 1968, p. 273; Gimbutas Marija 1989, p. 234, fig. 364.
1022 Makkay J. 1968, p. 273.
1023 Falkenstein A. 1965, p. 272.
1024 Winn S. 1981.
1025 Masson Emilia 1984 is wrong when she mentions the right side of the tree.
1026 See also Winn's observations on this point (Winn S. 1981).
1027 Gimbutas Marija 1989, p. 234, fig. 364; Makkay J. 1968, p. 273.
1028 Masson Emilia 1984.
1029 Vlassa N. 1976.

Fig. IX.94. The quadruped on the right side of the rectangular undrilled tablet from Tărtăria.

Fig. IX.95. Head and legs of the quadruped photographed under microscope.

Fig. IX.96. The animal on the right side when assimilated to a seal impression.

The signs from Tărtăria

We list the sequence of signs occurring on the two tablets that are more script-like in form. The third tablet appears to represent a more naturalistic scene.

In the present chapter, the author has detected the signs engraved on the tablets from Tărtăria utilizing direct examination through a microscope, and has worked out some elements of their geometric organization. In the next chapter, we will put under scrutiny the hypothesis that the signs bear marks of literacy. If it is true that these signs originated in the Neolithic, are they actually elements of a system of writing? Otherwise, can they be symbols, decorations or mere scratches?

Exoteric message from the oblong tablet[1030]			
	T3.1a T3.1b	1 2	
	T3.2	3	
	T3. 3a	4	
	T3.3b	5	
	T3.4	6	
	T3.5	7	
	T3.6	8	
	T3.7	9	
	T3.8	10	
	T3.10	11	
	T3.9	12	

[1030] Fig. VIIC.24
[1031] Fig. VIIC.6b
[1032] Fig. VIIC.6b

Exoteric message from the circular tablet[1031]			
	T2.9	13	
	T2.10	14	
	T2.11	15	
	T2.12	16	
	T2.13a+b	17	
Esoteric message from the circular tablet[1032]			
	T2.2	18	
	T2.3	19	
	T2.4	20	
	T2.5	21	
	T2.6	22	
	T2.7	23	0
	T2.8	24	

Tabel IX.1. List of the signs from the Tărtăria tablets.

CHAPTER X
A COMPARISON BETWEEN THE SIGNS FROM TĂRTĂRIA, THE DANUBE SCRIPT AND OTHER EARLY WRITINGS

MARCO MERLINI[1033]

XA. THE POSSIBILITY OF NEOLITHIC WRITING ESTABLISHING THE DANUBE BASIN AS A CRADLE REGION OF EUROPE

THE DATING AND ASSERTED LITERATE CONTENT OF THE TABLETS

In this chapter, we put under scrutiny the hypothesis that the engravings on the Tărtăria tablets record script texts. In particular, we investigate the possible graphic convergence (shape of the signs and their organization in space) with signs and inscriptions of the Danube script inventoried in the databank *DatDas*. Every system of writing employs a catalogue of signs, and each group is distinct, defined, and limited. An inventory is a precise corpus of signs and not an account of marks drawn according to the writer's individual expression. The presence of an inventory of signs is one of the four essential elements of any system of writing which distinguishes *ars scribendi* from other communicational channels, such as calendars, symbols, accounting systems, heraldic markings, etc. Do the Transylvanian engravings match the sign shapes registered in the inventory of the non-linguistically based system of writing that developed throughout the Neolithic and Copper Age time-frame in Southeastern–Central Europe?

We also compare the engravings on the artifacts from Tărtăria with the single marks that occur on artifacts of the Danube civilization. They have been excluded by the *DatDas* list because when a mark appears in isolation it is in general not obvious if it is a sign of writing (with a linguistic label or not), a symbol, or an artistic motif. Semiotic tools are sufficient to make a definitive distinction only in few instances.[1034]

Since the discovery of the tablets, many studies have asserted graphic parallelism and similarity in meaning with Proto-Sumerian pictography. We test this hypothesis according to the identification of the Transylvanian sign outlines established in the previous chapter in agreement with the new radiocarbon calibrated data concerning both the Danube civilization and the Mesopotamian civilization. We also note when single Transylvanian signs are in alignment with the set of signs established by subsequent ancient scripts such as the Indus script, the Akkadian cuneiform, Hieroglyphic Luwian, Cretan Linear A, Cretan Hieroglyphic, and Cypriot syllabary. The main aim is not to find hazardous hits from analogies with other systems of writing in order to implement the 'decipherment' of the messages encoded in the tablets. It is to verify whether or not the Transylvanian informational geometries are restricted to the Danube script, or if they are also rooted in other literacy systems of the ancient world.

The comparison with other ancient scripts is crucial if we are aware that the inscribed tablets from the tell settlement of Tărtăria–*Groapa Luncii* have been a focal point, since the time of their discovery, in a fierce debate to find a solution to four interconnected crucial issues. The first is the origin and chronology of writing concerning the assertion that the Transylvanian engravings might express a form of literacy. The second is the chronology of European prehistory and its synchronization with other early civilizations due to inconsistency between the absolute and relative chronologies. According to the carbon 14 method, literacy in the Balkan-Danube region predated the earliest Sumerian cuneiform

[1033] Unless otherwise specified, all the photos of the tablets have been shot by Marco Merlini and Gheorghe Lazarovici in the years 2002–2011. Since the tablets, as sacred objects, are to be shown, the horizontal coordinates (left-right) are described from the observation point of the viewer and not from the artifacts themselves (mirror effect).

[1034] Merlini M. 2009d, p. 199 ff., 389. The choice to list in the data bank only the inscriptions with two or more signs is broadly explained in the introduction of the chapter "Matrix of semiotic rules and markers for inspecting the internal structuring of the sign system employed by the Danube civilization".

and Egyptian hieroglyphics by more than one millennium and this fact collides with widespread archaeological and historical clichés. The third is the evidence of a local evolution of Neolithic and Copper Age cultures in Southeastern Europe, which reduces the importance of the diffusionist paradigm *Ex Oriente Lux*. Fourth is the location of the cradle regions of civilization in Europe. There is a high possibility that the Neolithic and Copper Age civilization of the Danube Basin has to be placed in a leading position in European cultural affairs[1035]. Concerning the above-mentioned topics, the Transylvanian inscribed artifacts continue to occupy a unique and often contentious position in European prehistory starting from the investigation of their possible literate content.

The Tărtăria tablets have a curious destiny within the history of writing technology. After their discovery and for decades thereafter, when their origin was synchronized with early Mesopotamian literacy, it was typically assumed that their script-like signs were for magical purposes. Is it a "true writing technology or not?" was the main question within the scientific community. The Transylvanian wonder became an arena where experts from different fields (mainly archaeologists without any basic definitional approach to writing technology, and a few linguists familiar with the languages of antiquity, with a grasp of the historical mechanisms behind the genesis of literacy), and amateurs alike, competed to demonstrate their expertise by making statements about the emergence, rationale, and functioning of the Transylvanian signs as well as their interrelation with other ancient scripts.

The use of C14 chronology (accurately determined according to the dendrochronological method), which dates the tablets to the late sixth millennium, is not fuelling semiotic investigation on them. The main reaction is not to explore the extraordinary possibility that Neolithic cultures of the Danube Basin might have developed an early and original form of writing that predated Egypt and the Near East regions by up to 1500–2000 years. Many scholars are now denying the status of writing to the Transylvanian signs (considering them to be symbols, decorations, or mere scratches) or are inappropriately lowering the date of the tablets even further.

For other scholars, any interest in the tablets and the research on them has simply evaporated. It is reputed to be a subject that is too hot and slippery. In addition, scholars engaged in the topic of the tablets, making authoritative declarations, have often observed patterns of consensus and have adhered to conventional truisms concerning the understanding of the organization of ancient sign systems with a lack of comprehension about them. Therefore, they have felt under counter-attack by the new dating and the necessity to deal with a 'Neolithic literacy'. The semiotic scientific terrain extends beyond the archaeological sphere, and they have no semiotic categories established to study such a remote *ars scribendi*. Finally, the discussion concerning the literate content of the tablets has served exclusively to set up a chronological point of reference for the prehistory in Southeastern Europe. The understanding of the organization of a sign system at Tărtăria and throughout Southeastern Europe was beyond the horizon. A Taoist statement says: "You use a pebble to knock at the door in order to be heard, but when the door is open, you through away the stone". The Transylvanian tablets are that stone. How did the declassification of the Tărtăria tablets from writing to assemblages of symbols or scratches happen?

Since the ritual pit-grave and the tablets have been found, the conundrum concerning their dating has caused an extensive discordance in assigning a culture to them and in giving chronological consistency to the appointed culture[1036]. The disagreement concerning the literate content to the Transylvanian

[1035] Merlini M. 2003. For a survey, see Merlini M. 2004e, p. 51–63; 2009c.

[1036] As illustrated in the previous chapters, Vlassa N. explained that the Tărtăria tablets came from the loess, but he did not give enough information concerning their setting within the ritual pit-grave and the location of the burial inside the stratigraphy of the excavated trench. Therefore, since 1963 scholars have been attempting to ascertain the date of the Transylvanian inscribed finds based on three variables. First, their similarity in typological features with other tablets and plates; second, the correspondences between the other items recovered in the ritual pit-grave (statuettes, spondylus armring, ram horns pendent, etc.) with other known objects; third, the resemblance of the Transylvanian signs with the signs already known of ancient literacy. The result is surreal because in half a century scholarship has assigned to the layer where tablets have been found a very large range of options, sailing from Developed-Middle Neolithic, to Late Neolithic, to Copper Age, up to Bronze Age. Listing them from the earliest to the latest cultural horizon:

- Early Vinča (Garašanin M., Nestor I. 1969, p. 22);
- Vinča A (Vlassa N. 1976, p. 33);
- High developed Vinča A (Milojčić Vl. 1965, p. 264, 268);
- Vinča A or Vinča B (Bognár-Kutzián Ida 1971, p. 140);
- Vinča A3, A/B1 (Lazarovici Gh. 1977, p. 19–44; 1979, p. 123; 1989, p. 81, tab. 1);
- phase A of Vinča-Turdaș culture, Masson Emilia 1984;
- Vinča A or Vinča B1 (Hood M. S. F. 1967, p. 110; Luca S. A. 2000; 2006b, p. 349–350);
- Vinča B1 (Vlassa N. 1963, p. 494; 1976, p. 12);
- First half of Vinča B1 (Makkay J. 1968, p. 276);

artifacts was much less wide and deep at the time of the sensational discovery. Only minor skepticism was expressed over the spectacular claim that an early form of writing was present in the region – or at least magical signs copied by foreign prototypes without understanding the literate content. Therefore, the three famous inscribed plates re-launched interest in an ancient European script[1037].

However, divergence in attributing an accurate date and culture to the tablets has continued to reverberate. The excavator and several scholars assumed that the inscriptions from Tărtăria originated in the Sumerian civilization[1038] offering the possibility of establishing cultural and chronological synchronization between barbarian Europe and the dawn of civilization in the Near East[1039].

Other scholars took the opportunity to investigate the possibility that the Neolithic and Copper Age cultures of Southeastern Europe – with the Turdaș and Vinča cultures in the forefront – might have developed an early form of writing that predated the Near Eastern scripts by up to 1500–2000 years. A number of experts from this side have easily related the objects found together with the tablets to the early Vinča culture. Milojčić stated that the slit eyes of the clay figurines[1040] supported a date for the tablets in the Vinča A period[1041]. If radiocarbon dating evidence had been accepted for the Vinča period, then the tablets and their inscriptions should have been dated c. 4200–3900 BC[1042], or more realistically about 5000 BC[1043], "in the 5th millennium before Christ"[1044], or considered "genuine early Vinča artifacts of the fifth millennium BC"[1045], or even from the latter half of the sixth millennium[1046]. Bakay arrived to fix an implausible 8000–6000 BC to the Transylvanian finds[1047].

Despite the aforementioned 'ballet dancing' in dating, the inscriptions from Tărtăria are from one to two millennia before the dawn of the Sumerian civilization.

During the mid-third quarter of the past century, scholars of the other side who went in search of a much more traditionally comfortable dating, came to an unacceptable conclusion by focusing on a Uruk IV or Jemdet Nasr (Uruk level III) origin. The short chronology and diffusionist approach were fused, and it was popularized as a 'population wave of advance' from the Near East[1048]. The tablets were dated by the discoverer to about 2900–2700 BC[1049] and to 2500 BC by other scholars[1050]. In order not to displease anyone, G. László proposed an age for the tablets between 5000 and 2300 BC[1051]. Even if most of the scholarship assigns a literate content to the finds from Tărtăria (at least as pictograms), the chronological gap between the two options is too large to be reconcilable. Consequently, the Transylvanian tablets bring into a sharper focus the discrepancy between the estimated dates concerning Southeastern European prehistory and its synchronization with other civilizations (the Aegean and Near East), the durations of cultures, and the idea that the historical process is based on a sequential series of archaeological cultures. It also poses questions concerning the diffusionist paradigm according to which the first farmers spread agriculture across the globe as well as sowing seeds for most of today's languages and systems of writing. The assertion that the marks incised on the Transylvanian tablets might express some sort of meaning is

- Vinča-Turdaș B1–2 (Makkay J. 1974/5, p. 27).
- Late Vinča-Turdaș B1–2, Berciu D. 1967, p. 162 note 55
- Vinča B2, Dimitrijević S. 1969, p. 94
- Turdaș-Petrești, Tringham Ruth 1971, p. 114
- Baden-Coțofeni, Neustupný E. 1968b, p. 32; Dumitrescu Hortensia 1969a, p. 92, 99–100, 588–589; Roman P. 1969, p. 68; Georgiev G. I. and Georgiev V. I. 1969; Zanotti D. 1983
- Bronze Age 2000–500 BC, Baráth T. T. 1997.

1037 Vlassa N. 1962, p. 23–30; 1963, p. 485–494; 1976, p. 28–43; Merlini M. 2004a; 2009c; 2009d; Lazarovici Gh., Merlini M. 2005; 2008; Merlini M., Lazarovici Gh. 2008.

1038 Vlassa N. 1963, p. 495; 1975; 1976; 1977; Makkay J. 1968; 1969; 1990, p. 50.

1039 Vlassa N. 1962; 1964; 1965, etc.

1040 Illustrated by Vlassa N. 1963, p. 489, fig. 6.

1041 Milojčić Vl. 1965, p. 264, 268.

1042 Tringham Ruth 1971, p. 114.

1043 Neustupný E. 1968b, p. 32.

1044 Perlov B. 1975.

1045 Gimbutas Marija 1982, p. 88, with a dating of 5300–5000 BC; 1989, p. 234, fig. 364, with a refined dating of 5200–5000 BC.

1046 Haarmann H. 1990, p. 76.

1047 Bakay K. 1997.

1048 For example, in 1965, Vladimir Popović compared the Balkan finds, including some seals bearing signs, with those of the early Bronze Age Aegean and the Orient (Popović Vl. 1965).

1049 Vlassa N. 1976, p. 33.

1050 Hood M. S. F. 1967, p. 110.

1051 László G. 1974.

generally not contested, although according to some scholars, they might be calendrical or astronomical signs. Any extra-literacy interpretation as decorations or symbols is advanced by a slight minority.

The Uruk IV – Jemdet Nasr gate for the sign shape

Some archaeologists have been persuaded that the tablets from Tărtăria "bring up some kind of south-eastern European connection with Mesopotamia"[1052], even if it is a matter of speculation which kind of relationship was established. Nevertheless, progress in historiography and chronology is crunching their supposition. Only a minority supposes the Transylvanian signs have other than vague parallels with the Mesopotamian signs as a local development, independent from Near Eastern stimulus[1053]. If there is a convergence in sign patterns between Tărtăria and Mesopotamia, it will be tested, sign by sign, in the present chapter.

The Mesopotamian gateway has roots, since Zsófia Torma's research, when she specified that the religious beliefs and symbols of the population from Transylvania and Jamdet Nasr derive from the same source, and that the signs of "Dacian writing" have their foundation in Asia Minor[1054]. If some names of divinities belong to the Thracian–Dacian pantheon, such as Šamaš/Zebeleisis and Sin/Bendis, she assumed a Mesopotamian genesis[1055]. Zsófia Torma anticipated the conviction of the excavator of the Sumerian city of Ur, Sir Charles Leonard Woolley, who stated that the inhabitants of Jamdet Nasr arrived in Sumer from the Carpathian Basin via the Balkans[1056]. We have already analyzed the potentiality and limits of her viewpoint in the first chapter.

Scholars who have followed the Mesopotamian source, hold as unambiguous the excavation context and the dating of the Tărtăria tablets to the Vinča–Turdaș period (following the surpassed terminology) or the Vinča culture (in up-to-date terminology) based on the traditional relative chronology established upon archaeo-typological correlations in pottery, upgraded to "historical evidence"[1057]. At the same time, they have refuted as invalid the (corrected and uncorrected) radiocarbon dates for the Neolithic in Southeastern Europe[1058]. According to the out-of-fashion nomenclature, the tablets have been ascertained to the Vinča-Turdaș A period[1059], or the Vinča-Turdaș B1[1060] to be considered more or less contemporary with the earliest Mesopotamian written signs. Therefore, many questions rose. Do the Transylvanian signs have essential connections with the Sumerian pictographic writing? Were they indigenous or imported? Finally, is it certain that they bear the marks of a script?

The discoverer of the tablets suspected immediately that the signs incised on rows on them "may be taken for a rudimentary writing... at least the rudiments of an ideographic notation"[1061]. In his unpublished PhD thesis, Vlassa specified that: "The absolute news related with the tablets is the grouping of the signs... on two of the tablets that confer a rudimentary aspect of 'writing'. It is also true that in the area of the Turdaș–Vinča culture we have hundreds of isolated signs or grouped (2–3 only), especially on the bottom of the pots or on idols"[1062].

Persuaded that the grouping of the signs indicates a form of writing, Vlassa went is search of its Near Eastern origin, since he believed that region to be the source of almost all cultural developments. Consistently, he considered it too unlikely to be taken seriously for prehistoric Europeans to have developed their own form of literacy before the development of Southwestern Asiatic prototypes[1063]. Therefore, he tried to identify the direct or indirect influence of Mesopotamian "high culture" on the semiotically organized and developed sign groups incised on the Transylvanian tablets. He found that the signs on the archaic tablets of the record deposits at Uruk IV (3500–3200 BC according to Vlassa

[1052] Kalicz N. 1970, p. 46.
[1053] Renfrew C. 1970, p. 51–52.
[1054] Torma Zsófia 1882, p. 27–28.
[1055] Torma Zsófia 1894, p. 19; László A. 1991, p. 46.
[1056] Woolley C. L. 1929.
[1057] See, e.g., Neustupný E. 1968, p. 34.
[1058] Milojčić Vl. 1965, p. 261–8; Hirsch H. 1968–1969, p. 203; Brentjes B. 1971, p. 23–4.
[1059] Milojčić Vl. 1967.
[1060] Makkay J. 1968.
[1061] Vlassa N. 1963, p. 492.
[1062] Vlassa N. 1977, p. 13.
[1063] "Even if we will operate with the long historical chronology of the Ancient Orient, the postponement *vis à vis* of the C14 data of the Vinča–Turdaș is about a millennium. It is inadmissible to imagine that the pieces from Tărtăria (and many other Middle Neolithic Transylvanian objects that have an 'oriental' nuance) are older than their micro-Asiatic prototypes; in the Orient, the historical chronology is supported by very solid arguments; the absolute data of this chronology coincide with those provided by C14" (Vlassa N. 1977, p. 14).

in 1963[1064], 3500–3000 BC in 1976)[1065] and Jemdet Nasr (3200–3000 BC, according to Vlassa 1976[1066]) – where writing was thought to have been invented – had the closest analogies to the signs on the Tărtăria tablets. In his view, *any* Transylvanian signs "are seen as identical or very similar" to those of Uruk IV, and *some* of them "look like those on the Jemdet Nasr tablets"[1067]. The scene, perhaps of hunting, incised on the rectangular undrilled tablet "resembles that on an archaic cylinder at Ur"[1068].

Following this line of reasoning, the discoverer of the tablets suggested that since the Mesopotamian tablets dated from that period, the European tablets could be dated around 2900–2700 BC[1069]. Half a millennium was considered a sufficient time lag for the Near Eastern innovation to have reached Transylvania: "the necessary time for the circulating of such pieces – or the cultural influence which gave them birth – down to the Mureș valley". It was a date "admitted by most researchers for Vinča A" and, according to Vlassa, it "corresponds exactly to the date which as a matter of fact can put forward for the first layer at Tărtăria, even if the tablets were not extant"[1070]. To summarize, the Transylvanian discovery was ascertained by the excavator to be from the Vinča A stratum that he dated to around 2900–2700 BC.

However, Vlassa, who was not a specialist in Near East history, noted the "lately general trend" to lower "the date of Uruk–Warka IV and Jemdet Nasr"[1071]. Following this mainstream tendency, he established "for the end of the first layer at Tărtăria a date which would mark just the beginning of the Vinča B1 phase, as we already stated when we presented this layer (2600 BC)"[1072]. In another paper, he dated the artifacts to around 2600–2400 BC[1073].

It is understandable why Vlassa focused on external influence, filiation, or imitation instead of local antecedents or parallels to explain the source of the astonishing novelty of this unusual discovery. He observed that many of the over three hundred signs on the shards from Turdaș were identical to those on the Tărtăria tablets. However, he still did not suspect a local origin for the signs, or consider the continuity of similar marks occurring in Neolithic sites throughout Southeastern Europe. He introduced instead the question of the place from which the bearers of the Turdaș culture came with a pre-determined answer: the civilized Near East[1074]. According to him, even the inhabitants of Gura Baciului, Ocna Sibiului and Cârcea were migrants from the Near East[1075].

Vlassa's hypothesis was confirmed by other distinguished scholars[1076]. In parallel, a number of experts on early systems of writing observed close or probable typological connections between the Tărtăria signs (and the Turdaș group of signs) and the early pre-cuneiform Mesopotamian script developed in the Sumer 'proto-literate' period[1077]. They enlisted the following analogies: a) the shape of several signs; b) their incision on tablets; and c) their presence on tablets similar to the Mesopotamian tablets[1078]. Moreover, they thought they had identified the best likenesses with the tablets bearing pictographic signs at the very end of Uruk IIIb[1079].

The Jemdet Nasr period was at that time ascribed before or after 3000 BC by relative chronology[1080], and after 3000 BC by C14 analysis[1081]. As observed above, to Vlassa and to many other scholars, some centuries seemed to be a proper time lag for the invention of writing – or at least for the captivating effect of its magic signs – to spread out from the civilized Near East to uncultured Transylvania. Concerning the dating of tablets and signs, we have already noted that Vlassa fixed it from 2900 to 2400 BC depending on his different publications. Makkay considered the tablets to be coeval "with pictographic or pottery

1064 Vlassa N. 1963, p. 8.
1065 Vlassa N. 1976, p. 33.
1066 Vlassa N. 1976, p. 33.
1067 Vlassa N. 1976, p. 32.
1068 Vlassa N. 1963, p. 492; 1976, p. 32 note 13, quoting Tiumenev 1956, pl. 4/1–2.
1069 Vlassa N. 1976, p. 33.
1070 Vlassa N. 1963, p. 494; 1976, p. 33.
1071 See for example Egli E. 1959, p. 51.
1072 Vlassa N. 1963, p. 494; Milojčić Vl. 1949.
1073 Vlassa N. 1970, p. 30.
1074 Vlassa N. 1963.
1075 Vlassa N. 1972a.
1076 Milojčić Vl. 1965; Popović Vl. 1965; Renfrew C. 1966; Hood M. S. F. 1967, p. 99-102; 1968; Makkay J. 1969; 1971; 1984;1990.
1077 Gelb I. J. 1967, p. 488; Grumach E. 1969, p. 258; Edzard D. O. 1969, p. 220; Hrouda B. 1971, p. 103.
1078 Makkay J. 1973, p. 1–5.
1079 Makkay J. 1968, p. 276.
1080 Porada E. 1965.
1081 Moorey P. R. S.1966.

signs", ascribing them to the first quarter of the third millennium[1082] and more precisely between 2900 and 2800 BC[1083].

At the time of the Tărtăria discoveries, these "short chronologists" took account of the date for the beginning of the Vinča culture not earlier than 2500 BC[1084]. Still in 1999, G. A. Owens addressed the tablets and "associated signs of proto-writing from the Balkans" to the Vinča culture assigning to it a date of c. 4000 BC, i.e., within the Final Neolithic period in Greek terminology. It was the transitional period to the "Bronze Age, ca. 4500–3200 BC, before the appearance of writing in Mesopotamia, Egypt and the Indus Valley"[1085]. It is significant to note that nowadays there is consensus on dating the Vinča culture to about 5500 BC[1086]. The "short chronologists" also estimated the start-up of the previous Starčevo-Criș (Körös) cultural assemblage nearly three millennia after the present findings, i.e., 3400 BC[1087], whereas we settle its start-up nowadays around 6100 BC[1088].

The lower date of the Transylvanian tablets was not enough for the hard wing of the short chronology. According to them, the Tărtăria tablets had to be included within the cultural horizon of comparable tablets on Crete: possibly before 2000 BC, but more probably as late as 1750 BC; the idea of writing on clay tablets might have been introduced to Crete from Syria at the beginning of Early Minoan II (ca. 2600 BC), or even before[1089]. Tibor Baráth underlined that similar disk-shaped artifacts were manufactured and used in Crete around 2000 BC. Therefore, he dated the Transylvanian finds to the Bronze Age (2000–500 BC)[1090].

Many scholars are still in agreement with the very short chronology established by Hood for the Transylvanian writing but, unfortunately, it is based on the misunderstanding of the stratigraphy published by Vlassa. In fact, S. Hood confused: a) the pit fillings with a hut infill; and b) the find spot of the tablets with a hearth[1091]. Disinterested in the stratigraphycal inconsistencies, a number of researchers strictly maintain the conjectured existence of a correlation between early pictographic Mesopotamian script of literacy and Transylvanian signs. They simply argue that if the Sumerian tablets were not much earlier than 3000 BC, the Transylvanian clones should be later, rejecting the "anomalies" of radiocarbon dating (although calibrated) from the Vinča culture being based on "lurking imperfections in the method". Still, in 1965 Vl. Milojćić, and in 1967 S. Hood, discussing the Transylvanian finds as a gluttonous occasion for rejecting the radiocarbon dating for the Vinča culture, observed that C14 dates for cultural stages in historical Egypt, Mesopotamia and the Aegean were often accused of being too late as opposed to the Vinča dates that were blamed for being too early. These scholars did not consider the influence of Earth's changing magnetic field on the production of radiocarbon[1092]. In 1970, K. Horedt – archaeologist in charge at Tărtăria excavations before Vlassa and professor of Prehistory at the Cluj University – expressed his skepticism about radiocarbon dating in the Balkans[1093].

Is it 'true writing technology'?

After deciding that "the signs on these fired clay tablets are almost identical to those found in Mesopotamia"[1094], and after assigning a late date to the Transylvanian inscriptions, the short chronologists started to debate if they might be considered signs of writing or mere writing-like marks[1095].

The leading position was established by A. Falkenstein, responsible for the publication of the tablets from Uruk, who pointed out a strict correlation between the Tărtăria tablets and the tablets from Uruk IIIb that belonged to the same cultural horizon as those of Jemdet Nasr. He argued that the Transylvanian signs were definitely Sumerian signs. He also thought to have found sound values for

[1082] Makkay J. 1974/5, p. 27.
[1083] Makkay J. 1973, p. 1.
[1084] Hood M. S. F. 1967, p. 110.
[1085] Owens G. A. 1999, p. 115.
[1086] Merlini M. 2009d, p. 469.
[1087] Grbić M. 1955, p. 25, 27; Benac A. 1958, p. 41; and others.
[1088] Merlini M. 2009d, p. 468.
[1089] Hood M. S. F. 1967, p. 110.
[1090] Baráth T. 1997.
[1091] Whipp D. 1973, p. 148; Hood M. S. F. 1973, p. 148.
[1092] Milojćić Vl. 1965; Hood M. S. F. 1967.
[1093] Horedt K. 1970, p. 23–25.
[1094] Kalicz N. 1970.
[1095] Vlassa N. 1963, p. 485–494; Hood M. S. F. 1967, p. 99–113; Makkay J. 1968, p. 272; 1969, p. 9–27; Vlassa N. 1972, p. 372; 1976; Hood M. S. F. 1973, p. 149; Young L. M. 1973, p. 72–79.

four signs representing the agricultural field / to split in two or in more parts / to share, raising sun / day / one day / and seed of grain. He considered those engraved on the discoid tablet to be "perfect Proto-Sumerian pictographic ideograms", as synthesized by F. J. Badiny[1096]. Falkenstein's line of reasoning was based on five pilasters:

- The Tărtăria signs, especially those on the rounded tablet, are highly comparable with those on the early tablets from the Late Predynastic period in Mesopotamia as the scholar synthesized in a chart[1097]. The connections with the early Sumerian pictograms (= proto-cuneiform signs) are even more obvious in the instance of the symbolic hunting scene on the rectangular undrilled tablet, which is a more naturalistic representation and resembles the well-documented Mesopotamian impressions on seals;
- Some Transylvanian signs appear to have been derived from Mesopotamian marks as numerals;
- The system of dividing groups of signs within sections that are separated by incised lines is present also in Mesopotamian pictography of cylindrical seals;
- Both the Transylvanian tablets and the early Mesopotamian tablets show no occurrences of the wedge-shaped instrument employed for cuneiform writing;
- The feature in shape of two tablets from Tărtăria (rectangular and relatively flat) occurred also in Mesopotamia.
- Establishing these semiotic connections, the German Assyriologist dated the Transylvanian signs to around 2900 – 2700 BC and made an effort to establish parallels between them and the most ancient pre-cuneiform Sumerian documents found at Uruk, Jemdet Nasr, and Tell el-Far'ah. Unfortunately, he did not consider or did not care to take into account punctual counterarguments about the same issue[1098]:
- The Tărtăria signs show striking resemblances, not only to the Pre-dynastic Mesopotamian writing, but also to several other ancient scripts;
- In the case of numerals, the whole shape of the sign is sunk in the clay with a round-ended stylus (impressions) on the Uruk tablets, while at Tărtăria the equivalent signs are incised in outline;
- The scheme of partitioning groups of signs within sections that are separated by incised lines is present not only in Transylvania and in Mesopotamia, but also in other ancient literate areas;
- The occurrence of an absence (no traces of the wedge-shaped instrument employed for cuneiform) in Transylvania and in Mesopotamia is a very feeble circumstantial evidence to establish literate parallels between the two regions;
- In Mesopotamia, relatively flat tablets are in very small numbers and are much larger than the rectangular items from Tărtăria; small circular tablets to compare with the Transylvanian one are very rare;
- In addition, the string-holes on two of the Tărtăria tablets find no parallels among the early Near Eastern tablets.

It is significant to note that, according to the traditional point of view supported by Falkenstein and followers, the tablets from Uruk III and Jemdet Nasr do not bear a mere primitive stage of writing, because they display not only pictograms or ideograms but also some signs containing a phonetic element. In this occurrence, signs stand for words and not for objects, animals or structures that they literally represent. In addition, these signs with recognized sound values are combined together to comprise words even if there are no grammatical relationships between the elements represented on the texts[1099]. Consequently, the main question regarding the marks on the tablets discovered in the deepest layer at Tărtăria evolves into the enquiry concerning their "rank" in the development of writing technology. According to N. Vlassa, these European people had at least "knowledge of a rudimentary ideographic notation"[1100]. However, his conviction concerning a primitive literacy in Transylvanian collides with a strong denial from other scholars: the signs from Tărtăria do not represent a more or less advanced stage of literacy, because they have just a superficial resemblance, without any writing implications to the signs on the early Mesopotamian tablets[1101]. We will analyze this point below.

[1096] Badiny F. J. 1966.
[1097] Falkenstein A. 1965, p. 271.
[1098] Falkenstein A. 1965, p. 269–273.
[1099] Diringer D.1962, p. 21.
[1100] Vlassa N. 1976, p. 43.
[1101] Hood M. S. F. 1967, p. 104.

The group of scholars that still nowadays draw attention to a strict correlation between the Tărtăria signs and the Mesopotamian "antecedents" consider the graphic influence within the framework of a more general cultural drift from the Near East. They postulate it happened at the point of transition from the fourth to the third millennium BC, or during the third millennium BC (depending on the author). Within Southeastern Europe, the culture most markedly affected is considered "that one of the Vinča–Turdaș"[1102]. H. Müller-Karpe points out that human representation in relief was a common practice in Mesopotamia and that it occurred in Southeastern Europe only at Turdaș possibly because of Near Eastern influences[1103]. J. Makkay investigates the advent of cylinder seals in Europe as a result of a strong impact from similar artifacts of the Jemdet Nasr and Pre-dynastic periods. According to him, in the Final Neolithic, the knowledge of making cylinders or cylinder seals was possibly bridged on the European continent by early settlements on the Cycladic Islands and via the export of obsidian from Melos to as far as Thessaly and Thrace. He considers the small fragment of light-colored trachyte tuff with engraved signs found by Zs. Torma at the Transylvanian site of Nádorválya[1104] as the most distant example of a cylinder seal made locally under indirect influences of the Mesopotamian prototypes.[1105]

Generally speaking, these researchers believe the idea of local independent invention of literacy in Southeastern European Neolithic to be absurd, due to lack of complex phenomena and processes reputed to be indispensable to the invention of writing technology as listed, for example, by I. J. Gelb[1106]: developed agriculture, full metallurgy, cities with large public buildings, and monumental art[1107]. Therefore, they emphasize a Sumerian influence, not only in the sphere of writing, but also in economic affairs, i.e., the presumption of the exploitation of copper and gold deposits in Transylvania by Sumerian prospectors, metallurgists, and metal-workers who exported the knowledge of metallurgy together with signs of literacy[1108].

Having taken into account the development of Southeastern European Neolithic under the Fertile Crescent umbrella (in particular the Anatolian influence), these scholars propound the mastery of the earliest Sumerian system of writing, maintaining also that Europe adopted later inventions of the Near Eastern civilizations, e.g., the chariot and the pottery wheel[1109]. P. Charvát not only accepts Near Eastern influence into Transylvania but also tries to establish ties even with Crete[1110].

In conclusion, the presumed eastern-western drift of culture diffusion during the period between 3100 and 2500 BC is based on four markers:

- The identification of strong typological connections between the two systems of signs;
- The existence of a general cultural influence from the East;
- The difference in level of economic, social and cultural development;
- The subsequent adoption by Europe of some inventions developed by the Near East.

Although most of the Mesopotamian-addicted scholars consider it unlikely that the Transylvanian tablets were drafted by a Sumerian hand or in the Sumerian language[1111], their recognition of strong Tărtăria-Mesopotamia parallels gives a good reason for dozens of amateurs to propose outlandish translations of the tablets employing Sumerian sounds[1112]. B. Perlov reads on the circular tablet, according to clockwise direction, a message that was written with Sumerian signs from the Jamdet Nasr culture and informs about what happened at Tărtăria: "The four(th) governor God Saue, in honor of the wise head of the nation, burned one". Mixing his speculations concerning "Vinča ceremonies and vessels" and "Sumerian totems", the scholar is convinced that a ritual killing or a sacrifice into fire of a high priest, accompanied by some kind of ritual cannibalism, happened. He supposes to see such Sumerian totems on the Transylvanian tablets and this postulation leads him to think that Tărtăria and Jamdet Nasr shared the same religion concepts[1113]. Utilizing Uruk and Jamdet Nasr pictograms as

[1102] Makkay J. 1973, p. 1.
[1103] Müller-Karpe H. 1968, p. 307.
[1104] Torma Zsófia 1882, p. 44, pl. IV, 7; Vlassa N. 1970, p. 21, fig 19.
[1105] Makkay J. 1974/5, p. 26. In opposition, Renfrew C. reviewed the five cylinder seals found at Sitagroi as product of a local inspiration and made thousand years earlier than those from the Jemdet Nasr period (Renfrew C. 1972, p. 215).
[1106] Gelb I. J. 1967, p. 488.
[1107] Makkay J. 1974/5, p. 23.
[1108] Götz L. 1994.
[1109] Makkay J. 1974/5, p. 23.
[1110] Charvát P. 1975.
[1111] Komoróczy G. 1974.
[1112] Tonciulescu P. 1996, p. 9–15; Moisoiu R. D. on line.
[1113] Perlov B. 1975.

well as Sumer logogram values, J. Harmatta translates straight and *sine pudore* the two drilled tablets as a list of sacrificial offerings such as vessels, horses, spelt (*Triticum spelta*), and barley (specified quantities included) to four Akkadian gods (Enlil, Palil, Usmu, and Samas), as if they had been written in Sumerian[1114]. The idea of tamed Neolithic horses in Southeastern Europe is fanta-archaeology. It is also a mystery how he extracted the name of the gods from Proto-Sumerian pictograms. If he assumed straight that the Transylvanian "pictograms" were equal to the Mesopotamian pictograms, and that they can be "read" applying to them the values of the Sumer logograms, his "translation" says nothing about the encoded language. No wonder that such an effort was stigmatized as *„déchiffrement fantaisiste"* by Emilia Masson[1115].

Writing without being capable of writing

Following the line of reasoning of the Mesopotamian-gate, the main questions are when and how the idea of writing, the inventory of signs of literacy, the system of writing, and the technique of inscribing clay tablets were transmitted from Mesopotamia to Transylvania. However, the answer to this issue requires the previous resolution of too many inconsistencies that affect this approach. They concern the implausibility in dating of the tablets and the culture to which they belong, as well as their diverse time frame (from 2900 to 500 BC), inadequate chronological and factual correspondences between the Danube region and Southern Mesopotamia, the assumption of a *file rouge* relationship between two very distant regions, and the presence of Sumerian signs of literacy on tablets that were not imported goods, being made from local clay.

Since the discovery of the tablets, fertile imaginations have been put in motion in order to make up for these incongruities. If we cannot move the goods, since the tablets were processed locally in Transylvania, we can imagine the people who produced them. Was there some form of East-Southern colonization of the Balkans during this remote period? N. Vlassa strictly connected what he called "the question of the primitive script" with the issue of a possible Near Eastern origin for this literate population[1116]. Gábor speculates about a Sumerian population that emigrated in Transylvania to settle down there forever. They utilized very early signs of writing from Ur and the surrounding area. Şt. Kovács specifies that the migration occurred about 3400 BC. Sumerians settled down there as Hungarians. J. Harmatta arrives to interpret some incisions on artifacts as depictions of Sumerian wagons and considers some Neolithic villages in Transylvania to be settled by Sumerian populations[1117]. They actually are from the Linear pottery with musical note heads culture that belongs to the Middle Neolithic with a date to 5000–4950 CAL BC[1118]. However, the conjecture of Sumerian migrants from Mesopotamia who settle in Transylvania and in the northern area of the Balkans is not plausible according to the archaeological record.

Alternatively, was the transmission of literacy channeled only through indirect methods such as "contacts"? Merchant adventurers moving along the routes connecting Mesopotamia, Anatolia, Cyclades, and the Middle and Lower Danube may represent the links between the Fertile Crescent and the Balkans. J. Makkay investigates the advent of cylinder seals in Europe as a result of a strong impact from similar artifacts of the Jemdet Nasr and Pre-dynastic periods. According to him, in the Final Neolithic, the knowledge of making cylinders or cylinder seals was possibly bridged on the European continent by early settlements on the Cycladic Islands and via the export of obsidian from Melos to as far away as Thessaly and Thrace. He considers the small fragment of light-colored trachyte tuff with engraved signs found by Torma at the Transylvanian site of Nádorválya[1119] to be the most distant example of a cylinder seal made locally under indirect influences of the Mesopotamian prototypes[1120].

What attracted eastern traders and adventurers to Transylvania? Makkay assumes that the gold of Transylvania made traders from the Near East, Anatolia, and the Eastern Aegean establish contacts with that European area, and points out that the ancient gold producing site of Zlatna (in the György valley) is located near Tărtăria and Turdaș. He presupposes that the mines in Anatolia could no longer satisfy

[1114] Harmatta J. 1966, p. 235–6.
[1115] Masson Emilia 1984, p. 114, note 61.
[1116] Vlassa N. 1976, p. 43.
[1117] Harmatta J. 1966.
[1118] Merlini M. 2009d, p. 468.
[1119] Torma Zsófia 1882, p. 44, pl. IV, 7; Vlassa N. 1970, p. 21, fig 19.
[1120] Makkay J. 1974/5, p. 26.

the sudden increase in the demand for gold by the Mesopotamian city-states. Therefore the request was channeled – possibly via the entrepreneurial merchants of the Cycladic islands – to the efficient Transylvanian mines[1121]. I. J. Gelb attributes the tablets to Sumerian traders familiar with writing, or to a less specified "inhabitant of Transylvania" who had a vague idea of Sumerian documents and aped them[1122]. Among the different options concerning the identikit of the person who made and inscribed the clay tablets found by N. Vlassa, according to J. Makkay, one has to contemplate as the most plausible scenario, a Sumerian scribe native of Transylvania, or a Sumerian merchant trading to Transylvania in person; otherwise the artifacts could not have been produced from local clay[1123].

Did the trading contacts have a mere economic character or a religious nature? Vl. Popović made a complex exegesis on the epic of Gilgamesh in order to find traces of a Sumerian colonization of Transylvania and therefore a rationale for the ritual deposition at Tărtăria[1124]. S. Hood applied the schema of Cirillus' and Metodius' mission of evangelization along the Danube, postulating Sumerian proselytizers in prehistoric Southeastern Europe: "in Romania... the first spread of writing or of signs derived from it may have been in a strictly religious or magical context... It is not impossible that the missionaries of an earlier religion from the East brought a first knowledge of writing during the third millennium BC"[1125]. According to him, the Tărtăria tablets resemble the early tablets from Crete and Mesopotamia and were found in a ritual context because they might harmonize with the imaginative suggestion advanced by M. Vasić that the Vinča ruling class consisted of mining prospectors-cum-witch-doctors from the south. They were engaged in the exploitation of the mineral resources of the Middle Danube region keeping a hold over their native subjects by means of religion and magic[1126].

A number of scholars who accept the Vinča (or Vinča-Turdaș according to the oldest terminology) horizon for the Transylvanian tablets and are puzzled by the correspondences between the oldest European inscriptions and early Sumerian pictograms/ideograms propose a different solution, preferring to recognize the parallels only in sign shape, but not in meaning. They state that the inscribed blueprint of the Tărtăria finds, especially on the rounded one, is so similar to writing on early Mesopotamian tablets that it must have derived, even if indirectly, from it. Nonetheless, the original Near Eastern signs of literacy might have lost their authentic functions having been merely copied and used as symbols of a religious or magical character without an understanding of what they actually meant[1127].

Semiotically, the hypothesis that the Tărtăria tablets bear only a writing-like design is based on the argument that the signs of literacy do not appear together in the same groups as they do on the Mesopotamian tablets. Two signs that occur separated, but in adjacent groups, on the Tărtăria discoid tablet are joined together on some of the Jemdet Nasr tablets to compose the name of a god: EN-GI. A Transylvanian "intellectual" copied two Sumerian signs, but was not capable to unite them to write properly the divine name. No scholar from that side expresses doubts that perhaps the ancient Transylvanians had no intention to write down the name of a Sumerian god. According to them, the illiterate presence of signs of literacy at Tărtăria might reflect the awareness that they were marks of great power, combined with ignorance of the significance of writing[1128]. The conviction that signs of literacy are carriers of magic powers is exactly the reason why their mere graphic imitations have been deposited in a ritual pit-grave with fragments of human bones. "The tablets, in all probability, are mere imitation of original Mesopotamian ones, made with a magic purpose without any real understanding, possibly by a person who saw the usage of such tablets somewhere, between Southern Mesopotamia and Southeastern Europe, without a real knowledge, however, of the art of writing... It is well-known that the apotropaic power is specially felt among illiterate people", explained J. Makkay[1129] some years before advancing the aforementioned suggestion of a Sumerian scribe native of Transylvania, or a Sumerian merchant trading to this region[1130].

[1121] Makkay J. 1974/5, p. 27.
[1122] Gelb I. J. 1967, p. 489.
[1123] Makkay J. 1990.
[1124] Popović Vl. 1965.
[1125] Hood M. S. F. 1967, p. 111.
[1126] Vasić M. 1929.
[1127] Gelb I. J. 1967, p. 488; Hood M. S. F. 1967, p. 111; Makkay J. 1968, p. 286–287; 1969, p. 9–27; and 1974/5, p. 25.
[1128] Hood M. S. F. 1967, p. 104–5; 1968.
[1129] Makkay J. 1974/5, p. 24.
[1130] Makkay J. 1990.

Ex Balkani lux?

If the above-mentioned standpoints are based on the negation of any reliability of C14 for dating, at the opposite pole other scholars acknowledge it to be valid for both the Vinča (Vinča–Turdaș in old fashion terminology) ascertainment of the tablets, and the radiocarbon dating of Neolithic and Copper Age cultures in Southeastern Europe. In general, they assign the sensational inscribed tablets to ca. 5300–5000 BC, predating the early Mesopotamian pictographic written signs[1131]. As mentioned in a previous chapter, our recent C14 measurements has fixed the date of the Tărtăria tablets as belonging to c. 5300 CAL BC[1132].

The newly established absolute chronology supports the idea of an early experiment with writing technology in Southeastern Europe independently from any Mesopotamia influence. In addition, cross-dating Mesopotamia and the Danube basin is failing even from the Near Eastern side due to new chronological assessments from recent archaeological excavations of settlements along main rivers and treading roads in Mesopotamia, Syria and Anatolia, along with the revision of previous excavations of villages and small towns routinely believed to be "Mesopotamian colonies"[1133]. A key region for the dawn of civilization is no longer considered the lonely Mesopotamia, but it has been enlarged to include Eastern Turkey, Syria, the Levant, Iran, the Indus Valley, etc. The Uruk period supposed to have colonized Transylvania was not an epoch of large expansion, which endured exactly from the VI phase until the IVa phase when a collapse happened and there was no trade to export with literacy. During the subsequent Jemdet Nasr period, there were no Mesopotamia-Anatolia contacts. The postulated way to faraway Europe was not working even at medium ray. At that time, Anatolia did not play as a join-zipper but as a divider.

The first evidence of gold trade between the two regions is not earlier than the middle of the third millennium BC in Early Dynastic III and is represented by gold artifacts exported from Mesopotamia. The conjecture regarding Sumerian prospectors who exported religious beliefs to Transylvania with the knowledge of metallurgy and literacy is inconsistent. In addition, the chronology of some Mesopotamian objects utilized for pointing out of similarities with the signs from Tărtăria has to be revised. For example, the cylindrical seals utilized by J. Makkay for comparison with the goat on the Transylvanian undrilled tablet are not from the Jemdet Nasr period (at the present generally dated to ca. 3100–2900 BC) as maintained by him, but from a layer some centuries later, i.e., the Early Dynastic II (ca. 2750–2600 BC).

Due to the accumulation of inconsistencies, in recent times Makkay revised his framework, even if confirming the Mesopotamia–Transylvania parallels, and reaffirming that the circular tablet was influenced by the Sumerian script. However, now he lowers the date of correspondences, finding the best parallels in Early Dynastic II, the early urbanistic period that employed two specialized systems of writing: a monumental script and a script engraved on clay artifacts. According to the new assessment, Makkay considers the genesis of the Tărtăria tablets to be in the Coțofeni age (3600–3200 BC[1134]), as maintained by most of the "short chronologists", to be even too early. He agrees to the implausibility of asserting the occurrence of Sumerian merchants in Transylvania, but speculates about a step-by-step trade between the two regions (trading outposts). Finally, he is forced to set up the origin of the Transylvanian signs, not from the core area of Mesopotamia, but from a marginal region of it, or even from neighboring territories[1135].

In summary, according to new data, the chronological correlation and system of relationships between Near East and the Danube civilization assumed by the Mesopotamian-gate is unreliable on both sides. Under the pressure of the C14 dating, the "short chronologists" react by lowering even more the date of the Transylvanian tablets and their supposed foreign origin. However, do the Tărtăria tablets actually bear traces of literacy? Are there connections between their signs and the later system of writing from the Uruk IV and Jemdet Nasr period?

Concerning the first question, the acceptance by some experts of the radiocarbon dating caused the waning of their interest in the possibility that Southeastern Europe might have expressed a form of writing in Neolithic and Copper Age time-frame. The invention of a European *ars scribendi* from

[1131] Masson Emilia 1984.

[1132] Merlini M. 2004a; 2006c; 2006d; 2008a; 2009a; Gh. Lazarovici, Merlini M. 2005, p. 213; 2008; Merlini M., Lazarovici Gh. 2007; Cornelia-Magda Lazarovici, Lazarovici Gh. 2007, p. 127, 133–134, 137, 191, 198–207.

[1133] Kalla G. 2001.

[1134] Merlini M. 2009d, p. 466.

[1135] Makkay J. personal communication 2009.

early agriculturalists was considered so unthinkable that the simple possibility of it was ignored and its evidence given very scant attention. If the European signs are actually so ancient, they should be relegated to the round of decorations, ownership/manufacturer marks, or mere scratches. As annotated by H. Haarmann, "The spontaneous identification of the signs as script or an imitation of script in the 1960s and 1970s turned – with the rise of the new chronology – into its opposite in the 1980s by negating the status of writing to the signs and depriving the tablets of their former attention as objects of scholarly study"[1136]. According to C. Renfrew, it is ... *"very possible that the signs on the tablets are a local invention ... The similarities of some of the signs with those incised on the Vinča period pottery at Turdaș, Banitsa and Vinča itself would suggest that they have to do with the Vinča culture or the Balkan Copper Age. (However) to call these Balkan signs 'writing' is perhaps to imply that they had an independent significance of their own, communicable to another person without oral contact ... (Contrariwise they) seem to have functioned essentially within an oral tradition, as mnemonic aids to a chant which had to be learned by other means .... And the marks on plaques or 'tablets', which can be plausibly associated with some ritual purpose, are likely to have had at most a mnemonic value, if indeed they were anything more than invocations, carrying a meaning only at the moment they were made ... So that, while ... these Balkan signs have an independent origin and held a real meaning for those who made them, to talk of writing, without careful qualifications, may not be appropriate"*[1137].

At the opposing pole, other scholars considered the Tărtăria tablets to be the earliest attestation of an Old European script. A mainly religious tradition of literacy flourished in Southeastern Europe and covered a span of time from the late sixth to the mid-fourth millennia BC[1138]. However, are there any resemblance and connections between the Danube system of writing and the subsequent Near East pictograms/ideograms? Had they both an autochthonous development? Alternatively, was the start up of the Western and Eastern *ars scribendi* influenced from abroad? According to most of the aforementioned scholars, the establishment of a new cultural chronology for Southeastern Europe and Mesopotamia has facilitated the assessment of the relationship concerning writing technology between the two regions in the direction of the exclusion of any influence from Mesopotamia to Europe. First, they emphasize the two millennia time gap between the European inscriptions and the earliest Sumerian writings of the late fourth–early third millennium BC. Second, they give attention to the fact that any typological resemblance between the Transylvanian artifacts and those from the Near East is simply incidental[1139]. Gelb denied any Jemdet Nasr script on the Transylvanian tablets. Third, they consider any stylistic, graphic convergence in sign shape as merely occasional or illusory. Fourth, they give weight to the difference in techniques of incising signs of literacy and in spatial arrangement of them between the European and the Sumerian tradition. Concerning the tablets from Tărtăria, Emilia Masson stated that „their material aspect as well as the manner of engraving exclude the possibility of a Near Eastern import"[1140]. Fifth, they uphold the local origin of the Transylvanian finds and incised marks. Sixth, they underline the confirmation of an independent emergence of writing in Europe (that is, without Sumerian influences) by some orientalists[1141]. To summarize, most of the scholars committed to establishing a new calibrated chronology of Southeastern Europe agree in maintaining an independent origin of the Tărtăria tablets and signs. Concerning writing technology in general, they do not find any special relationship between the two cultures.

Conversely some experts – puzzled by recognizing similarities in sign outlines between the Neolithic and Copper Age inscriptions in Europe and early 'proto-literate' Sumerian signs – are inclined to associate the convergence with a drift according to which writing originated in Southeastern Europe and spread towards the Near East[1142]. More specifically, they started to ask whether the ancient European tradition of writing, as well as other local innovations, might have provided impulses to the Mesopotamian tradition in its formative process[1143]. "Was Sumerian writing

[1136] Haarmann H. 2007.
[1137] Renfrew C. 1973, p. 67, 68, 176, 186.
[1138] Todorović J. 1969; Gimbutas Marija 1972a, p. 113; 1972b, p. 47; 1973, p. 12; 1974; 1989; 1991; Masson Emilia 1984; Haarmann H. 1995; 2002; Merlini M. 2001; 2002c.
[1139] Berciu D. 1967, p. 162; Renfrew C. 1969, p. 28–29; and 1972, p. 7.
[1140] Masson Emilia 1984, p. 116, note 75.
[1141] E.g. Helck W. 1979, p. 12.
[1142] Haarmann H. 2002.
[1143] Rice M. 1994, p. 83.

(and Sumerian language perhaps) of European origin? ... A positive answer cannot be considered absurd any more", assures S. Paliga[1144].

The "Out of Carpathians" theory is supported by several very active Hungarian nationalistic scholars. The "Tatárlaka tablets" bear not only pictograms, but also four letters of the ancient "Székely–Magyar Runic Script" (*rovásírás*): F[1145], Z, NY, and GY are detectable on the disk-shaped artifact[1146]. More in general and still equalizing erroneously the Vinča A period at Tărtăria and the Vinča B1 period at Turdaș (actually divided by a time span of some centuries), these scholars consider the Neolithic "Tordos writing" as corresponding exactly to the Hungarian runic writing[1147]. The *rovásírás* was an alphabet used by the Magyars in the Early Middle Ages (7th–10th centuries) and was still employed by the Székely population in Transylvania until the 18th century[1148]. It is supposed that it originally developed as a syllabic writing system from the Sumerian cuneiform[1149]. Therefore, the "Tatárlaka tablets" are supposed to express an advanced form of writing with a one-to-one correspondence mark-sound as proof that the Hungarians originated in the Carpathian Basin. If the knowledge of writing was produced in the Carpathians, it was carried to Mesopotamia[1150]. Sumerians are the descendants of the ancient native "Hungarian Transylvanian" population that emigrated to Mesopotamia between ca. 5000–3500 BC[1151]. According to B. Perlov, the inhabitants of Tărtăria wrote in the fifth millennium BC in Sumer because they were the ancestors of the Sumerians: they subsequently moved from Transylvania to Kurdistan were they annihilated the Semits and settled as a pre-Sumerian population developing the pictographic technology[1152]. However, it is still to be proved that the two populations had the same languages or at least connected languages[1153].

The final corollary is that "almost all scripts on our planet originated from our Hungarian ancestors and these were created in Transylvania. . . Quite literally, we were the benefactors of Mankind, for which we have never received any thanks"[1154]. In Near East, the "Tordos writing" was the source code of the cuneiform writing developed by the Sumerians in Mesopotamia and subsequently utilized and modified by Akkadians and Ugarits[1155]. In Western European regions, the "Tordos writing" was also the starting point of the "Northern Etruscan Alphabets" used by Etruscans, Venetians, Rhaetians and Celts[1156]. The reason why the Carpathians forget the runic letters when they arrived in Sumeria is still a phantom that wounds these researchers. Inconsistencies apart, in its hard version, it is the "*Ex Balkani lux*" postulate malignantly criticized by S. A. Luca[1157].

INTERPRETATIONS DIVORCING THE RITUAL PIT AND SIGNS FROM THEIR ARCHAEOLOGICAL CONTEXT

Another wave of scholars have made an effort to move the polarized discussion on the Tărtăria finds between "short chronologists" and "long chronologists" as well as between foreign-driven and autochthonous centered genesis away from accepting archaeological resemblances/correlations or radiocarbon evidence. They try to demonstrate that the tablets had a problematic nature because they did not belong to the context with which they had been connected by the other authors: the Vinča culture. The pit could have been disturbed and unsealed. Therefore, it might not have been dug down from the Vinča strata, or the tablets might be intruders from the upper layers (Turdaș–Petrești or Coțofeni) occurring in the Tărtăria site. Ruth Tringham and Sarunas Milisauskas assert that the pit might have been excavated near the Turdaș layer, but not from it. According to them, it is possible that the tablets are from another cultural horizon and even from another location of the site: they might have been

1144 Paliga S. 1989; 1993.
1145 The recognition of the F of the runic script is only presumptive, because it is assert to be formed by the circumference of the clay disk and the cross in its middle (Friedrich K. online).
1146 Friedrich K. online.
1147 Labat R., Zakar A. 1976.
1148 Sebestyén G.1915.
1149 Labat R., Zakar A. 1976.
1150 Fehér A. W. 1975.
1151 Tóth A. 2007, p. 5.
1152 Perlov B. 1975.
1153 Makkay J. 1990, p. 118.
1154 Friedrich K. online.
1155 Labat R., Zakar A. 1976.
1156 Tóth A. 2007, p. 5.
1157 Luca S. A. 2006a, p. 22.

recovered from "one of the later habitation levels . . . from outside the area of the Turdaș settlement"[1158]. This suggestion is sustained noting that "signs similar to those on the tablets were incised on the bases of pots which have been excavated especially at the top of the Turdaș–Petrești level at Tărtăria, and in Yugoslavia in Vinča-Pločnik assemblage, for example at Banjica and Vinča"[1159], that nowadays are ascertained from the Vinča C2 to the Vinča D2 strata.

In 1967, Vl. Dumitrescu was the first to express doubts on the "Vinča-Turdaș dating of the sacrificial pit" and its content presupposing they belonged to the much later Coțofeni cultural horizon ca. 2900–2500 BC[1160]. He assumed the anchor as such evidence[1161]. Subsequenly, he challenged the authenticity of the tablets and, if they were authentic, the "cult" complex at Tărtăria had to be inserted into the Coțofeni culture[1162]. However, after some time he abandoned the thesis that the tablets are not authentic and contemplated them again as genuine goods from the Coțofeni culture[1163]. In *Praistorija,* M. Garašanin considered N. Vlassa's information on the sensational discovery as "unchallengeable", but he subsequently changed his mind and considered the Transylvanian artifacts to be more recent[1164].

After Vl. Dumitrescu, the Coțofeni origin for the tablets, more or less synchronous with the Jemdet Nasr culture, was re-launched by E. Neustupný[1165] and then by P. Roman[1166]. E. Neustupný asserted that all the layers contained a chronologically mixed complex and pointed out that the clay 'idol-shaped pendant'[1167], extracted from the layers in which the tablets were found, resembled the "anchor ornament" common in the Early Bronze Age of the Aegean area and also in the Late Chalcolithic Coțofeni culture[1168]. In a note published in *Antiquity,* David Whipp recovered the suggestion of a Bronze Age deposit pointing out certain deficiencies in N. Vlassa's account of the discovery and suggesting, in agreement with the views of some authors such as E. Neustupný[1169] and D. Berciu[1170], that the tablets came from a pit whose surface was not sealed by subsequent layers[1171].

Some scholars divorced the ritual pit from its archaeological context and made free interpretations trying to solve the inconsistency between absolute and relative chronology (i.e., the problem of the "anchor", erroneously ascertained to the Coțofeni level). David G. Zanotti advanced the possibility that the tablets were intrusive from the upper strata most likely connected with the Bronze Age presence on the site, in particular with the Baden-Kostolać culture. This would date the tablets to be between 5400 and 5000 years ago, or contemporary with the Uruk IV and Jemdet Nasr periods in Mesopotamia and would make their signs compatible with the Sumerian analogies detected by A. Falkenstein in 1965 and S. Hood in 1967 and 1968. In Zanotti's assumption, N. Vlassa actually found the inscribed artifacts in a pit dug from the "Vinča–Turdaș level", but they had been buried actually in a very superficial stratum on the steep northwestern slope of the mound, which was characterized by a mixed archaeological context. The tablets could have been intrusive from that upper stratum and could have been a product of the trade or the reflux movement of tribes returning to the Aegean[1172].

Gheorghe Lazarovici and Zoia Maxim challenged this vision point by point, explaining that Zanotti's reconstruction of the sediments was only valid, not before, but after the excavation carried by N. Vlassa. They did a topographic survey on this controversial point. It evidences that, if nowadays the high terrace of the Mureș river shows a very abrupt bank eroded by the flood in the area of the trenches excavated by Kurt Horedt, Nicolae Vlassa and Iuliu Paul (which covers an area of about 200 m), in Neolithic times the settlement did not have an eroded tell shape but it laid on a terrace whose limit

[1158] Milisauskas S. 1978, p. 129–130.
[1159] Tringham Ruth 1971, p. 114.
[1160] Dumitrescu Vl. 1967.
[1161] Dumitrescu Vl. 1969a, p. 92, 99–100.
[1162] Dumitrescu Vl. 1972, p. 93 ff.
[1163] Dumitrescu Vl. 1973a, p. 469 ff.
[1164] Garašanin M. 1973.I, p. 127.
[1165] Neustupný E. 1968a; 1968b, p. 35.
[1166] Roman P. 1969, p. 68.
[1167] Illustrated by Vlassa N. (1963, p. 489 fig 6, n. 5), but inexplicably considered unpublished by E. Neustupný.
[1168] Neustupný E. 1968a; 1968b, p. 35.
[1169] Neustupný E. 1968b, p. 32–35.
[1170] Berciu D. 1967.
[1171] Whipp D. 1973, p. 148–149.
[1172] Zanotti D. 1983, p. 212.

was at a minimum distance of 10–15 meters from the ritual pit[1173]. Sabin A. Luca established that "the archaeological material from the oldest Turdaș level from Nicolae Vlassa's discovery undoubtedly belongs to the Vinča A chronological and cultural horizon . . . Here we can find a starting point for the interpretation of the older archaeological material"[1174].

In conclusion, the assignment of the ritual pit-grave and its pile of object to later deposits overcome the tendency to disregard C14 method for dating and reconciles the tablets to it by disregarding Vlassa's account. It is worth noticing that for part of the scientific community the dating of the tablet to a late period is instrumental to promote other Neolithic scripts designated as the oldest in Europe or even in the world[1175]. At the Nitra symposium in 1967, G. I. Georgiev insisted that the Transylvanian tablets were later than the Bulgarian Karanovo seal because they belong not to a Vinča–Turdaș horizon, but to the Petrești Culture. Signs and pictograms on the Tărtăria tablets, similar signs and pictograms on certain pottery, and the more elderly signs from the Karanovo seal were each considered a "local phenomenon in the Balkan-Danube and Carpathian–Danube regions, the origin of which has to be sought even in the Early Neolithic"[1176]. G. I. Georgiev and V. I. Georgiev also argued that "Gradešnica–Karanovo writing" (the signs on the Karanovo seal, the Gradešnica platter, and other Bulgarian artifacts) represents the first written record in human history, and the Tărtăria tablets are mere Coțofeni finds[1177]. A number of scholars have even expressed doubt that the inscribed tablets belong to the settlement of Tărtăria[1178].

THE COEXISTENCE OF EXOTERIC MESSAGES AND ESOTERIC FORMULAS

Due to new data we have published in several occasions, older opinions related to the chronological affair of the Transylvanian inscribed artifacts – such as from N. Vlassa, Vl. Milojčić, J. Makkay, D. Berciu, Vl. Dumitrescu, and others – are out-dated and related only with the history of archaeological research, or the chronological assessment utilized in their period. However, from the review above it is inferable that parallels drawn between Tărtăria and Turdaș (intra-Transylvania), as well as between Tărtăria and Jemdet Nasr (Balkans-Danube region and the Near East), have an inadequate semiotic value, serving exclusively to establish a chronological baseline[1179]. Unfortunately, still today there is not an objective evaluation of the tablets, their signs and their possible literate content. They have played, and are still playing a key role in international archaeological debates to the extent in which they are a battlefield for other issues, such as the level of acceptableness of the absolute chronology, the origin and stages of European prehistory, and an assessment of the prehistoric cultures and cultural groups.

The incised signs on the Tărtăria tablets are believed to be a very early form of writing by a growing number of scholars. However, too often the recognition of these signs as script or "simulated script" is spontaneous and maintained uncritically.

The main problem that raises with the Tărtăria tablets is to understand both the level of literate knowledge behind their production and what 'quality' of literacy they represent. We would like to test according to semiotic criteria whether the signs engraved on the Transylvanian artifacts are actually an expression of an *ars scribendi*. And, in case of a positive answer, if they are part of the Neolithic script that developed in Southern–Central Europe. We will accomplish the task comparing the signs from Tărtăria with the corpus of signs from the databank of the inscriptions associated with the Danube script (*DatDas*) that is under development by Marco Merlini. At the present, *DatDas* registers 1,031 inscribed objects and 1,269 inscriptions (some artifacts bear more then one inscription) that have an average length of 4.60 signs. The databank records 5,836 actual signs, and ca. 302,000 significant statistical data. It is the largest collection of inscribed artifacts belonging to the Danube Civilization, and the most numerous corpus of inscriptions of the Danube script thus far assembled[1180].

We will investigate the signs from Tărtăria starting from the observation we have already formulated in different articles and books concerning the coexistence on them of an exoteric message and an esoteric one[1181]. It is noteworthy to consider the possibility of overlapping the two tablets, both

[1173] Lazarovici Gh., Zoia Maxim 1991.
[1174] Luca S. A. 2006b, p. 349.
[1175] V. I. Georgiev 1969, p. 32–35; B. Nikolov, V. I. Georgiev 1970, p. 7–9; 1971, p. 289.
[1176] G. I. Georgiev in Mikov et al. 1969, p. 9.
[1177] G. I. Georgiev, V. I. Georgiev 1969.
[1178] Berciu D. 1967; Dumitrescu Vl. 1969, p. 92; Comșa E. 1982, p. 82–85.
[1179] Vlassa N. 1963; Milojčić Vl.1965; Falkenstein A. 1965; Makkay J. 1969, 1974/75, 1990; Kalicz N., Makkay J. 1977.
[1180] See Merlini M. 2009d.
[1181] Merlini M. 2004a; 2004b; 2099d, p. 541; Lazarovici Gh., Merlini M. 2005; 2008.

bearing a round puncture and divided into cells. The hole on the rectangular tablet fits precisely the hole on the circular tablet, and the former artifact perfectly covers the upper register of the latter with their cells in perfect alignment. The lower edge of the oblong tablet exactly superimposes the horizontal line running on the round tablet, and the vertical line incised on the first artifact from the edge of the hole downwards meets exactly the vertical line incised on the lower register of the larger artifact thus forming a continuous line.

This superimposability could mean that the rectangular and circular drilled tablets have been worn one over the other as pendants of a necklace, the small rectangular tablet placed over the larger disc-shaped one. More significantly, the possibility to overlap the two artifacts could also mean that overt (seen) signs and esoteric (hidden) signs both occur in the resulting assemblage between them (i.e., the signs on the upper register of the circular tablet would have been covered). The tablets aggregate the attributes of ritual artifacts, amulet-tablets, and amulet-archives possibly worn by Milady Tărtăria[1182].

The message to be conveyed by the tablets is likely based on a relationship between exoteric and esoteric signs. The fact that the two punctured tablets could have been utilized as superimposed exoteric and esoteric amulets is indicative of the magical associations of the script[1183]. The upper esoteric register of the disk-shaped tablet was hidden to uninitiated persons. It was necessary to lift up the oblong tablet in order to see the secret text incised on the upper register of the circular tablet. The question of the non-visibility of some texts is not only indicative of magical associations of the Danube script and its employment in liturgies, but it reveals even the sacral nature connected with initiation processes of this kind of literacy. Was the sacred inscribed compound particularly in use during initiation ceremonies?[1184] If this was the case, it does not facilitate any attempts to decipher the incised signs since one is dealing with texts that challenge the un-expressible, not only reveal but also conceal and sidetrack, and finally indicate something to mean something else.

The discoid drilled tablet was much less utilized than the oblong one. It means that it was produced at a later date or that it was more rarely worn. The second hypothesis is consistent with an artifact that bears an arcane text engaged in rituals involving only initiates.

Fig. X.1. Two tablets have been conceived according to the possibility to lay one over the other.

Fig. X.2. Two tablets may have been worn as amulets, one over the other.

Fig. X.3. The tablets worn as a necklace.

Applying this interpretation to the tablets from Tărtăria, I will investigate at first the sequence of signs on the rectangular punctured tablet, then on the lower register of the circular tablet, and finally on the upper register of the same tablet. The aim of this chapter is to investigate the possible graphic convergences in shape and spatial organization of the Tărtăria signs with those of the Danube script and of other early systems of writing. Therefore, the engravings on the undrilled rectangular tablet will be not analyzed. They are not pictograms or ideograms, but naturalistic although schematic depictions expressing iconic and symbolic elements. On the tablet, the sketch is naturalistically rendered, and the absence of perforation signals a difference in use compared to the other two amulet-archive tablets.

[1182] See below the remarkable case of the Middle Neolithic seal from Yannitsa.

[1183] See Makkay J. 1968, p. 286; Hood M. S. F. 1967, p. 111; Reiner E. 1960, p. 148 ff.

[1184] Merlini M. 2004a; Lazarovici Gh., Merlini M. 2005; Merlini M. 2009d, p. 362.

XB. INVESTIGATION OF THE SIGNS ON THE OBLONG PUNCTURED TABLET

THE ORGANIZATION OF THE SIGNS

On the rectangular pierced artifact, the alignment of signs into rows and their insertion into blocks made of horizontal and vertical lines recall similar inscriptions on other objects of the Danube civilization[1185]. The utilization of reserved spaces as rectangular metopes in order to frame texts of the Danube script is not a once-off case in the region. Throughout the Neolithic, it occurs on Banat II culture mignon cones from Parța[1186], Karanovo III miniature altars–offering tables from Samovodene (Bulgaria)[1187], the famous Gradešnica shallow vase[1188], a Vinča offering vessel in the form of a zoomorph from Priština (Kosovo)[1189], Gradešnica-Brénitza containers for the maintenance of food discovered at Brénitza (Bulgaria)[1190], and mini altars from Slatino[1191]. It is also characteristic of several Late Neolithic and Copper Age female figurines occurring in the Vinča culture at the eponymous settlement[1192], at Kormandin (Republic of Serbia)[1193], in the Turdaș culture at Turdaș settlement[1194], in the Gumelnița B1 at Vitănești (Romania)[1195], and in the Karanovo V–Marica at Azmashka Mogila (Bulgaria)[1196].

At Tărtăria, five individual signs[1197] and three sign groups[1198] are framed within distinct cells, as they are on an Early Neolithic mignon oracular globe from the necropolis-sanctuary of Lepenski Vir (Iron Gates region, Republic of Serbia)[1199]. The layout makes it easy to read as well as to isolate and emphasize the content of the message, because each of the seven rectangular cells encloses, processes and highlights the information expressed by a single sign or a sign group. Any metope possibly represents a single idea, in case of an individual sign, and a more articulated concept for a sign group[1200]. In this book, Gh. Lazarovici advances the hypothesis that the shape of each sign has been further underlined by a white substance.

To summarize, although carefully executed and sometimes iconic in shape, signs are not arranged according to an aesthetic design, but are assembled in a functional way in order to express a package of information that is composed of a logical sequence of seven conceptual elements.

MINIATURIZE BULLHORNS AS HEAVEN SYMBOLS

I will begin this investigation on the signs from Tărtăria and their comparison with those of early systems of writing by examining the sequence of engravings on the rectangular tablet with a hole. As analyzed in the previous chapter, the first problem is the wide range of viewpoints concerning what the marks are depicting and what is their related meaning.

The central register of the tablet is symmetrically subdivided in two sections by a vertical line starting from the hole. On the upper part (above the puncture) there are two mignon Y signs (1a and 1b in fig. VIIC.24a) made by three hollows realized by the pressure of a sharp point. Gh. Lazarovici and I interpret them as mignon bucrania or bullhorns with both decorative and symbolic functions. They are an integral part of the package of information stored on the tablet. Due to their position, they might be heaven symbols.

[1185] Merlini M. 2006a.
[1186] Merlini M. 2009d, p. 550.
[1187] Merlini M. 2009d, p. 250.
[1188] Merlini M. 2009d, p. 371.
[1189] Merlini M. 2009d, p. 226.
[1190] Merlini M. 2009d, p. 620, 621.
[1191] Merlini M. 2009d, p. 623.
[1192] Merlini M. 2009d, p. 646.
[1193] Merlini M. 2009d, p. 562, 573.
[1194] Merlini M. 2009d, p. 573.
[1195] Merlini M. 2009d, p. 291.
[1196] Merlini M. 2009d, p. 296, 656.
[1197] Considering the y plus stroke to be a unique sign.
[1198] Including the mignon bucrania or bull horns on the two side of the hole.
[1199] Merlini M. 2009d, p. 259.
[1200] Merlini M. 2004a, p. 89.

I will expand upon the subject of the possible convergences in shape of the Transylvanian bullhorns with the signs of the Danube script and other early writings when dealing with the next bucranium present on the same tablet.

THE TRIPLE MOONTHS

Starting from the upper left side of the tablet, the first box encloses a sign comprised of three miniature closing brackets horizontally aligned (sign 2 in fig. VIIC.24a), and a vegetal motif (sign 3 in fig. VIIC.24a).

DatDas registers the first sign as))), DS 013.7[1201]. It inscribes the triple crescent as a variant by the multiplication of the), that is the root-sign DS 013.0 of the Danube script. The triple) is an element of a complex inscription composed of five signs in linear succession on a Vinča C spindle-whorl from Drenovac (Republic of Serbia), a site of micro-regional relevance for the Danube script during its Blooming stage[1202]. In this instance, the))) seems to indicate a quantity (time?) marker[1203]. Several tri-brackets occur on the inside of a Petrești B disk discovered not very far from Tărtăria. It comes from Pianul de Jos and has a date of ca. 4500–4200 BC[1204].

Fig. X.4. Numeral or record keeping signs on an Early Neolithic tablet from Sesklo (Greece). (After Daniela Bulgarelli © Prehistory Knowledge Project).

The bracket signs incised on an Early Neolithic tablet from Sesklo (Greece) might give some hints for the decoding of the triple) on the tablet from Tărtăria. At Sesklo, the signs are elementary and letter-like, among them a (sign, and a) sign. They have been engraved on two linear registers divided by a long horizontal line and are evidently numerals, according to Theocharis[1205]. He considers that signs on tablets and cylinder types belong to a very early writing or a numeric system at Sesklo, although he admits that he does not know the function of these artifacts. According to Winn, and to us, the set of signs based on the bracket-sign and its positional, multiple, and diacritical variations might not represent numerals. They have complex variations and the method of marking 'multiple' is the same as, for example, the V, or the X. Such signs possibly represent tallies or a form of record keeping[1206].

The))) has no significant correspondences in the Mesopotamian pictography. The graphic parallelism with the sign ATU 892 established by A. Falkenstein is implausible[1207]. The Transylvanian triple) finds a partial graphic similarity with the sign 156 of the Indus script[1208], where its numerical system used base 10 with the signs , , , representing 10, 20, 30, etc.[1209].

In conclusion, at Tărtăria, the triple closing bracket might represent a number[1210] or, more appropriately, a time marker as in the Indus culture[1211]. From a comparative viewpoint, it is inferable that

[1201] This sign is not listed in Winn's 1981 inventory that registers the specular variant of it, (((. It is sign 133, included in the class of curved lines (Winn S. 1981, p. 63). The proper sign is recorded as DS 115 in Winn's inventory of 2004, where it is placed in the category of record-keeping (measurement/quantity?). Haarmann's 1995 repertory accounts the (((as OE 173. It is listed as a complex variant of an abstract basic sign. The (((is code 120 in Gh. Lazarovici's catalogue of signs and symbols.

[1202] Based on the chronological distribution of the corpus of signs recorded by *DatDas*, one can classify the life cycle of the Danube script as follows: The Formative stage (ca. Early Neolithic), the Accumulative stage (ca. Developed and Middle Neolithic), the Blooming stage when the script reached its peak (ca. Late Neolithic), and the Stamina stage (ca. Early Copper Age). These phases were succeeded by others of significant decline: The Fall stage (ca. Middle Copper Age), and the Eclipse stage (ca. Late Copper Age) (Merlini M. 2009d, p. 469).

[1203] The presence of the))) as an isolated sign detected by Winn S. on the base of a potshard from Banjca (1981, p. 312, fig. 89), and on an unusual object from Grivac (1981, p. 326, fig. 2), is surmised. Also questionable are the occurrences of this sign within inscriptions he possibly recognized from Jela, one on the rim/body area (Winn S. 1981, p. 336, fig. 70 and 71), and the other on a side near the base of a pot (Winn S. 1981, p. 339, fig. 96).

[1204] Gimbutas Marija 1989, p. 93, fig, 154/2.

[1205] Theocharis D. 1973, p. 298, tab. XIX, 3.

[1206] Winn S. 2008, p. 13; Merlini M. 2009d, p. 542 ff.

[1207] Falkenstein A. 1965.

[1208] Parpola A. 1996, p. 167, tab. 11.1.

[1209] Robinson A. 2002, p. 285.

[1210] Masson Emilia 1984, p. 118.

[1211] Farmer S. 2003, p. 9, 10.

the three) may indicate three (crescent) moons or three special months. In any case, the 'three *moonths*' sign seems to be a record keeping of time.

THE SACRED BOUGH-TREE AND THE TRANSIT FROM TWO SEASONAL PERIODS

The sign under three miniature aligned) signs is very difficult to recognize (sign 3a in fig. VIIC.24a). Its outline is unclear due to an abrasion, enlarged and deformed by the hydrochloric acid bath suffered at the National History Museum of Transylvania in Cluj-Napoca. It represents the pictogram/ideogram of a small stylized two+two branched tree/plant, or more probably a bough due to its horizontal position (sign 3b in fig. VIIC. 24a). Mobilizing a fertile imagination, Klára Friedrich[1212] detects the mixed outlines of several prone animals. The other vegetal motif positioned on its left, within another cell, is the pictogram/ideogram depicting a tree with two + two branches at its top.

The tree and ramiform signs[1213] are equipollent in the cult, and the symbolism of the bough was not less important than the symbolism of the tree[1214]. According to A. Golan, "the bough fetish, being of paramount importance in cult, possibly had been primeval in relation to the tree worship"[1215]. In his view, tree and bough are different vegetal motifs, but possess the same substance and represent one religious idea: the Tree of Life.

The ⩔ is not listed by *DatDas,* appearing only at Tărtăria. In the Danube script, the pictographic / ideographic sign depicting a bough/tree has two versions, differentiated from five branches or seven branches: the ⩔ (DS 052.0) [1216], as on this tablet, and the ⩔ (DS 051.0)[1217]. Scholars who follow the *ex-Balcani lux* theory interpret these signs as branches of a fir-tree, which later was elected as the Tree of Life for its vertical symbolism pointing heavenward. According to them, it was the insignia of the prehistoric population of the Carpathian Basin and its longitude occurrence excludes it as an original Sumerian, Mediterranean or Egyptian sign of literacy[1218]. However, a small drawing of such a schematic tree has been found even in Mesopotamia. It has a top plus six+six branches, and five roots made of parallel segments[1219].

Fig. X.5. The two vegetal motifs photographed under a microscope.

The ⩔ occurs not only at the Vinča settlement of Tărtăria, but significantly also on a Tisza–Herpály–Csöszhalom potshard on the rim area. It was discovered at the mound of Kremenyák at Čoka (southeastern Hungary)[1220] and is dated to 5000–4600 CAL BC[1221]. The ⩔ is an element of one of the two inscriptions (divided by three lines) incised on the fragment of pottery. The text is comprised of eleven signs; the other text consists of four signs. In both the instances, the signs are arranged in a circular format but with horizontal orientation. Čoka–*Kremenyák* was a settlement of micro-regional relevance

[1212] Friedrich Klára online.
[1213] Clottes J. 2008, p. 315.
[1214] Golan A. 2003, p. 368.
[1215] Golan A. 2003, p. 366.
[1216] It is listed as sign 29 in Winn's 1981 inventory. This sign is not included inside the category of the ideographs/pictographs representing plants. Winn S. describes ⩔ as a "single line modified by several V signs" (Winn S. 1981, p. 61). The ⩔ is recorded as DS 136 in Winn's inventory of 2004 where it is turned upside down and inserted inside the category of the abstract signs observed in various scripts. It is accounted as OE 13 in H. Haarmann's 1995 repertory, which records it among the pictographic/ideographic signs depicting plants. It is code 36 in Lazarovici's catalogue of signs and symbols.
[1217] It is listed as sign 30 in Winn's 1981 inventory where it is not housed within the category of pictograms, but is considered a "single line modified by several V signs" (Winn S. 1981, p. 61). The six-branched plus tree top is recorded as DS 137 in Winn's 2004 inventory where it is placed in the category of abstract signs observed in various scripts. It is accounted as OE 14 in H. Haarmann's 1995 repertory which associates it with the pictographic/ideographic signs depicting plants. It is registered under code 36b in Gh. Lazarovici's catalogue of signs and symbols.
[1218] Kurucz M. T. 1996.
[1219] Trévoux G. 1979.
[1220] Banner J. 1960; Merlini M. 2009d, p. 263, fig. 5.181, 597.
[1221] Merlini M. 2009d, p. 469.

for the Danube script[1222]. As an isolated sign, the is present on the Vinča D[1223] assemblage from the Vinča mound[1224]. It occurs also on pottery from Turdaș[1225].

In the core area of the Balkan-Danube region, the variant is findable, associated with others signs throughout the entire Vinča sequence (Vinča A-D)[1226]. It occurs often on pottery at Turdaș, found on fragments of vase walls[1227]. The base of a vessel is engraved with a cross of trees/boughs, or a sort of rose-like image composed of the replication of this vegetal motif four times[1228]. In the same settlement, in several instances, the tree is depicted with branches reversed downwards as though it was a fir, or a bough of this coniferous tree. This is the case of a many-branched fir incised both on the base and on the wall of a pot made of coarse clay[1229]. It is also the instance of a small fir engraved on the rim/body area of a vessel[1230]. The image of a fir tree is easily recognizable by its distinctive leafage, therefore, the two tree/bough depicted at Tărtăria does not belong to this conifer type.

As an element of the Danube script, the registers five occurrences in the dedicated databank. They are concentrated on two objects: the aforementioned Early Neolithic oracular sphere from Lepenski Vir[1231], and a Gumelnița A figurine from Gărăgău (Romania). The *arbolet* occurs four times on the globoid artifact recovered on the shore of the Danube River. Its appearance has strong graphic similitude with the vegetal motifs on the Tărtăria tablet under investigation: it is present always singly, and for three times it is positioned within three contiguous rectangular cells functioning as metopes: [1232]. The incised within an inscription located on the back of a female figurine from Gărăgău[1233] finds some significant convergences with Tărtăria: the tree/bough sign is placed horizontally, the text is comprised of several signs (six on the statuette), it is framed in a cartouche design, and contrasts / cooperates with emblematic symbols (two situated on the arms). The female figurine is characterized by a discoid head with a sort of crest and perforated ears[1234]. It is dated to 4500–4150 CAL BC[1235].

Fig. X.6. The tri-branched arbolet within a complex, framed inscription on the back of a Gumelnița A female figurine from Gărăgău (Romania). (Courtesy of F.MU.S.EU.M. project 2009).

Significant is the incised in different versions on the vulva and in place of it on two anthropomorphic female figurines discovered at Jela–*Benska Bara* (Vinča C) from a subsequent stage of the Vinča culture (its early stage is at Tărtăria)[1236]. The *arbolet* identifies and symbolizes the female genitals on an abstract level. This graphic substitution for the female reproductive organ is also found on a bone plate figurine from Neolithic Italy recovered in the Gaban cave, near Trento[1237]. As an element of emblematic decorations, the recurs eight times on a spindle-whorl from Turdaș where the *arbolets* are positioned equadistantly in a four-corner design as if to indicate the

1222 Merlini M. 2009d, p. 487.
1223 It was found at a depth of 3.4 meters.
1224 Todorović J. 1969, p. VII, 26; Winn S. 1981, p. 297, fig. 89.
1225 Roska M. 1941, pl. CXLI, 12; Makkay J. 1969, A8, 4; Winn S. 1981, p. 278, fig. 114.
1226 See also S. Winn's examination (Winn S. 1981).
1227 Roska M. 1941, pl. CXXI, 17; Makkay J. 1969, A9, 8; Winn S. 1981, p. 279, fig. 125.
1228 Roska M. 1941, pl. CXXXII, 10; Todorović J. 1969, pl. V, 20; Makkay J. 1969, A22, 26; Winn S. 1981, p. 282, fig. 199; Maxim Zoia, Gh. Lazarovici, Cornelia-Magda Lazarovici, Merlini M. 2009, p. 158.
1229 Roska M. 1941, pl. CXXXVI, 4; Winn S. 1981, p. 283, fig. 201; Maxim Zoia, Gh. Lazarovici, Cornelia-Magda Lazarovici, Merlini M. 2009, p.158.
1230 It is the aforementioned Roska M. 1941, pl. CXLI, 12; Makkay J. 1969, A8, 4; Winn S. 1981, p. 278, fig. 114.
1231 Radovanović Ivana located the abandonment of Lepenski Vir around 5720–5550 BC and synchronized it to the Starčevo-Criș (Körös) IIB stage (Radovanović Ivana 2006, p. 74). Therefore, the miniature sphere cannot be postdated to that period (Merlini M. 2009d, p. 259 note 1). See the C14 sequence at Lepenski Vir in Lazarovici Gh. 2006, p. 115, fig. 4.
1232 Winn S. 1981, p. 258; Merlini M. 2004e; 2009d, p. 261.
1233 Merlini M. 2009d, p. 247, fig. 5.141.
1234 Andreescu R. 2002.
1235 Merlini M. 2009d, p. 467.
1236 Winn S. 1981, p. 329, figs. 4, 5; Gimbutas Marija 1989, p. 103, fig. 168/2.
1237 Gimbutas Marija 1989, p. 103, fig. 168/3.

becoming and the turning of cyclical time[1238]. In the core Vinča area, the is also frequent as a single sign. Remarkable is its presence at Turdaș on several bases of pottery[1239]. It occurs also on the rim/body area of vessels at Predionica, in Kosovo[1240].

The Neolithic Transylvanian signs and find graphic correspondences with the Protocuneiform pictogram ATU 98, . Several scholars erroneously indicate a parallelism with the Protocuneiform pictogram ATU 111, [1241] (see also Jaritz #669). The supposed graphic similarity is forced against any evidence because the vegetal motif ATU 98 is not very widespread, whereas ATU 111 is a high ranking sign meaning barley in the system of writing emerging in Mesopotamia around 3500 BC. Barley was one of the vital crops in the southern area of the region and was used to brew beer. The Sumerian communities were under centralized control. The pictogram of barley is one of the oldest signs of the system of writing, developed because farmers brought this hardy cereal to the temples and a record was kept on how much barley was received by the priesthood. The pictogram , derived from the (GI, 'ear of cereal') associated with the (DU, 'foot', but also 'to walk'), means 'chief' and also 'priest', and it is the proto-cuneiform numerical sign N7 from Uruk[1242]. When a quantity of this cereal was given to workers employed in the temple economy, the fact was also recorded on a tablet. Usually a number was positioned next to this sign to indicate how much barley was being given into the temple or taken away. A weight of barley was the first Mesopotamian currency. Similar, but not equal signs have the general meaning 'tree' in Sumerian iconography (see, e.g., the figure incised on the plate of Dudu (ca. 2500 BC).

The rounded shape of the Transylvanian bough (if it is a tree) or leaves (if it is a branch) excludes the identification with a cereal and the sign ATU 111 (that, in addition, has four+four branches). Besides, in the databank of the inscriptions of the Danube script, the three/bough signs are in general depicted singly, and emphasized squared within a cell, although part of complex inscriptions. This is also the case of the Transylvanian oblong perforated tablet. Therefore, the semiotic context suggests utilization not connected with the representation of cereals and their quantity within an economical context, as maintained by other scholars who apply to the Vinča communities the stereotype of the Mesopotamian temple economy[1243]. Parallels with Cretan Hieroglyphic and the Phaistos Disc suggest going in search of a tree from Southeastern Europe (see below).

The sign means 'orient' in Hieroglyphic Luwian Inscriptions[1244]. There is also a vegetal element, , with sound *i(a)*[1245]. Partial correspondence occurs with the sign AB04, , TE, from Linear A[1246]. This vegetal sign is very significant because it was found on Samothrace Island in the northeastern Aegean, in front of Troy[1247]. The archaeological context places it as early as MM II/MM IIIA (the second half of the 18th century BC), being one of the earliest evidence of Linear A outside Crete[1248]. The plant motif is sign 025, , in Cretan Hieroglyphic. This sign is not present in Linear B. The best convergence is with the sign occurring eleven times on the Phaistos Disc. It has been interpreted as an Oriental plane tree (*Platanus orientalis*).

If the two Transylvanian trees/boughs belong to the same species, their identification is problematic due to their stylized outlines and their spoiled contours. I have already excluded the fir-tree. The signs do not have the appearance of a tree-bough from cold lands or during wintertime before spring. In any case, the Transylvanian vegetal motif does not look like a depiction of a visually perceived object true to nature. It is rendered schematically and horizontally to indicate an archaic symbol of a holy item with the constituent attribute of budding foliage. If it renders the sacred graphic symbolism of the Tree of Life, it is not the traditional one, i.e., the ascending vital force and the idea of a perpetual evolution rising towards the infinite sky.

[1238] Roska M. 1941, pl. CXXVIII, 10; Makkay J. 1969, A22, 33; Winn S. 1981, p. 268, fig. 4.
[1239] Roska M. 1941, pl. CXXXIV, 6; Todorović J. 1969, pl. I, 43, 54; Makkay J. 1969, A22, 18; Winn S. 1981, p. 282, fig. 195; Roska M. 1941, pl. CXXXIV, 38; Todorović J. 1969, pl. I, 54; Makkay J. 1969, p. 13, 6; Winn S. 1981, p. 286, fig. 304.
[1240] Galović R. 1959, tab. 72,2; Winn S. 1981, p. 363, fig. 6.
[1241] Falkenstein A. 1965, p. tab.2, 3.
[1242] Nissen H. J et al. 1993, p. 26.
[1243] Komoróczy G. 1974; Hruška B. 1987.
[1244] Hawkins D. 2000.
[1245] Laroche E. 1960; Meriggi P. 1962.
[1246] Godart L., Oliver J.-P. 1985.
[1247] Matsas D. 1991; 1995.
[1248] Godart L. 2001.

Sprouting branches and crescents are mutually associated at Tărtăria, as well as inside a Cucuteni B2–Trypillia C1 conical bowl from Tamashevka, Ukraine (3500 BC)[1249]. A clepsydra-shape humanoid from the Sardinian Ozieri culture (Conca Illònis, 4000–3800 BC) has a horizontal branch fixed to the head and another, pointing down, attached to a hand. Marija Gimbutas interprets the gesture as a symbol of regeneration[1250].

Blossoming plants are massively present in ancient Minoan and Greek mythology, sometimes with unusual aspects. The divine rising of Mother Earth from the vernal soil is depicted on a seal found by Sir Arthur Evans at Knossos. The Goddess stands at the top of a high peaked mountain holding a scepter at the centre of a complex mythological scene. Of interest here are two blossoming plants on either side of her, rising from the ground. The sea god Poseidon was sometimes represented as the god of the blossoming bough, as well as a bull-god. On a black figured amphora in the museum at Wirzburg, the Lord of the unharvested sea is painted riding on a sacred bull. In his right hand, he holds a great blossoming bough; in his left hand, he grasps a fish[1251]. At first sight, the association between a blossoming bough and a salt sea fish seems incongruous. However, although the sea and its Lord have no direct connections with agriculture, water itself is the source of life to agricultural people. Water is a mystic force for the growth of plants and the increase of flocks. Poseidon on a bull occupied a central position in agricultural ritual because it was associated with water-gods as activators of fertility[1252]. In medieval artistic representations of the Last Judgment, Christ is sometimes portrayed standing squarely, feet wide apart, holding the cross in one hand and one or two sprouting boughs in the other, symbolic of resurrection[1253]. All these depictions of boughs-trees comparable to Tărtăria seem to be metaphoric of new life and regenerative growth after the cold and deathlike season of winter.

At Tărtăria, the first vegetal motif seems to express the potentiality of sprouting nature connected to a period of three *months*. The passage from this vegetal motif to the other (more developed and located in a different cell) might indicate the transit from two different seasonal periods (winter and spring? spring and summer?), with related rituals. According to the first option, the signs on the tablet point to early spring rituals aimed to solicit the transition to spring light and renewal; the three *moonths* sign indicates the appropriate period for them, i.e., when to celebrate the *expectation*, *anticipation* and *triggering* of spring. In ancient Greece, this was the time for liturgies dedicated both to a 'new seasonal life' (budding trees, blooming flowers, germinating vineyards, pregnant animals, etc.) as well as to the souls of the dead which were believed to ascend to the 'upper world' around the first of March.

At Tărtăria, the vegetal motifs indicate the notion of the Tree of Life, literally and in action. The sacralization and mythicization of plants as Tree of Life are essential components of the complex and articulated package of information engraved on both the rectangular tablets. Blossoming plants, boughs, and twigs were possibly employed in ceremonies held by the Vinča community settled at Tărtăria longing for greenery and living things during the dead period of the bleak winter season. Villagers most likely decorated their houses with sprouting foliage. Raising green and blossoming boughs was a symbolic cult action. As in subsequent rural pagan traditions, some members of the community may have worn masks and danced to ward off the negative spirits of the deep winter and to procure a successful spring crop from the autumn-sown seeds. Was this celebration one of the rare occasions in which the two tablets were worn by Milady Tărtăria?

In these remote liturgies that might be glimpsed from the Transylvanian tablets, the Tree of Life was not also the Tree of the World. We have no evidence of a connection of plant or branch with the concept of the Cosmic Tree, or First Tree attested in later epochs (i.e., a gigantic, mythic, magical tree standing an the centre of the Earth, or atop the World Mound, as the pivot of the universe extending into the sky).

The abstract root-sign y modified by a diacritical mark

The lower right cell on the rectangular drilled tablet includes a couple of signs: the abstract root-sign *y* (sign 4 in fig. VIIC. 24a) surmounted by a miniature stroke (sign 4 in fig. VIIC. 24a). The *y* is sign DS 007.0 of the Danube script[1254]. The stroke is not a proper sign of literacy, but a diacritical auxiliary marker such

[1249] Gimbutas Marija 1989, p. 294, fig. 464/5.
[1250] Gimbutas Marija 1989, p. 17, fig 28/3.
[1251] Harrison J. E. 1924, p. 21–22, fig. 3; 1927, p. 55.
[1252] Ishida Eiichiro 1950, p. 66.
[1253] Clunies Ross M. 1970, p. 150.
[1254] The y is listed as sign 2 in Winn S.'s inventory of 1981. Due to the geometrical and not semiotic approach, the scholar assesses it among the

as small crosses, dots, and arches. They never appear as independent signs, but are applied to a root-sign to modify it. Based on this technique, a V can be transformed, for example, into a V+, a V/ or into a \I/. The variations can be simple (when applying only one diacritical mark to the root-sign as in the instance under investigation), or complex (when applying simultaneously two or more diacritical marks to the root-sign). The sophisticated technique of systematic variations of basic signs using diacritical markers characterized other archaic systems of writing such as the Indus script, but it was used for the first time in the Danube script[1255]. Three hypothetical functions of the diacritical marks are: a) expressing and recognizing the conceptual meaning of the correspondent root-sign; b) differentiating some phonetic units of the spoken language; c) indicating some grammatical aspects[1256]. The inclusion of a *y* plus stroke within the same metope highlights their connection in order to express a concept (a word? a phrase?).

The y-sign is one of the pillars of the Danube script recording 118 occurrences within *DatDas*. It is spread in 113 inscriptions engraved over 108 objects. About 10.5% of the inscribed artifacts bears a text containing one or more ys and 8.8% of the inscriptions. As a root-sign, the *y* has six positional variants. There are two rotated variants (the  , DS 007.1 and the  , DS 007.2), an inverted variant (the  , DS 007.3), a specular variant, as in a mirror (, DS 007.4), and a reversed specular variant (, DS 007.5). The *y* also has two simple diacritical variants: the DS 007.6, and the DS 007.7.

In the Danube civilization, this sign was employed in the whole range of channels for communication: from decorations, to symbolism, to the system of writing. The *y* is part of the set of key signs appearing both as a single, mono-sign inscription, and as a unit of two-or-more sign inscriptions. It is long lasting in the Danube script, being present along its entire sequence, from the Formative stage until the Eclipse stage, although it concentrates 81.4% of the occurrences in the Neolithic period and, within it, 44.1% in the Late Neolithic.

If one does not take into account data when the distinct period of the Neolithic or Copper Age is not specified, 8.0% of the *y* occurs in the Formative stage of the system of writing (11.6% of the total occurrences of the signs). In the Accumulative stage to which the Tărtăria tablets belong, the chronological incidence of the *y* increases to 25.9% (14.9% of the corpus of the totality of signs). In the Blooming stage, the *y* blossoms up to 46.4% (comparable to the 46.9% of the *montant global* of the Danube script signs).

In the Stamina stage, the *y* drops less than the totality of the signs in frequencies (to 14.3% compared to a general 20.3%), and the process continues in the Fall stage (to 2.7% compared to 3.9%). In the Eclipse stage, the fail is quite similar (to the 2.7% comparing to the general 2.5%).In conclusion, the y had a little delayed start-up in contrast to the generality of the signs, but the procrastination was amply recovered during the Accumulative stage of the script. Throughout the climax of the system of writing, it had an average circulation. In the declining time-frame of the Danube script, the *y* had a less abrupt decrease than the totality of signs.

During the Early Neolithic, the *y* was concentrated in the Starčevo-Criș (Körös) cultural complex[1257], at most in Romania and with a significant presence in the current Republic of Serbia. The contribution from the earliest phase of the Starčevo-Criș (Körös) cultural complex, the I B/IC, was ca. 11.1% with evidence on a mini-altar from Ocna Sibiului (Romania). A similar situation has to be registered for the Starčevo–Criș (Körös) IIA, with evidence from a potshard from Blagotin (Republic of Serbia). In the Starčevo–Criș (Körös) IIIA, the y recurred two times on a miniature altar – on a wall and on a transition leg wall from Donja Branjevina (Republic of Serbia). In the Starčevo-Criș (Körös) III B, the y reached 22.2%, with evidence on potshards recovered in Romania, at Trestiana and Gornea. Finally, the contribution from the Starčevo–Criș (Körös) IVA-IVB (coeval with the tablets from Tărtăria) was 22.2%, with evidence again from pottery at Trestiana and Gornea. Therefore, throughout the Early Neolithic the frequencies of the y were clustered in the central–final period of the Formative stage of the script, in a period coeval with the tablets from Tărtăria. It is to underline the absent contribution of the extra Starčevo–Criș (Körös) cultures to the early presence of this sign. The origin of the y as a sign of literacy has to be found in the core area of the Middle Danube course.

signs derived from a straight line modified by one accessory sign (Winn S. 1981, p. 60–61). It is sign DS 125 in S. Winn's 2004 inventory that includes it among the signs observed in various scripts. The y is registered as OE 213a in H. Haarmann's 1995 repertory, and code 49a in Gh. Lazarovici's catalogue of signs and symbols.

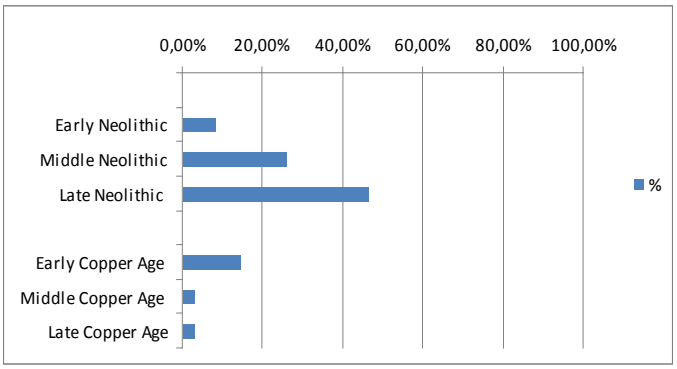
[1255] Haarmann H. 1998b.

[1256] Merlini M. 200d, p. 674.

[1257] Starčevo-Criș according to the Romanian literature.

Chronological distribution of the sign DS 007.0		
Period	*Absol. value*	*%*
Neolithic not specified	6	5.08
Early Neolithic	9	7.63
Developed-Middle Neolithic	29	24.58
Late Neolithic	52	44.07
Copper Age not specified	0	0.00
Early Copper Age	16	13.56
Middle Copper Age	3	2.54
Late Copper Age	3	2.54
Total	118	

Chronological distribution of the sign DS 007.0
(excluding data when the distinct period is not specified)



The Developed–Middle Neolithic culture that employed the *y*-sign most was the Vinča: 48.3% of the frequencies within this period compared to a definitely lower rate of the generality of the signs. Within the Vinča culture, Vinča A, to which the inscribed finds from Tărtăria belong, rated 42.9%. The Vinča mound was at that time the point of reference. The Vinča AB rated 14.3%, and the Vinča B 42.9%. The Vinča culture was followed in the employment of the y sign within inscriptions by the Romanian Banat II (13.8%). Marginal was the contribution from Sitagroi II and LBK I and II. Residual was the input from Anzabegovo–Vršnik IV, early Butmir, Szákalhát, and Alföld I cultures. During the Developed-Middle Neolithic, the y strengthened the set up in Transylvania, Banat and Vojvodina. In parallel, it reached the central region of F.Y.R.O.M., southern Hungary, and Bosnia.

In the Late Neolithic, the situation was very articulated. The champion culture was Vinča C, recording 32.7% of the recurrences of the period, with a hub in the Republic of Serbia and presences in Romania and Kosovo. Much further was the input from other leading cultures of the time such as the Turdaș in Romania (17.3%), the Tisza–Herpály–Csöszhalom in southern Hungary (15.4%), and the Late Neolithic B plus Karanovo IV–Kalojanovec in Bulgaria (3.5%). Residual was the contribution from Banat III, Pișcolt III, Zau III, the Suplac cultural group, and Vădastra in Romania, the Hotnitza – Usoie I in Bulgaria, and the Sitagroi IIIB and Paradimi III in Greece. In the Early Copper Age, the y was particularly present in the Gradešnica – Brenica culture in Bulgaria (43.7%). It occurred also in the Precucuteni – Trypillia A and Petrești A cultures (18.7% respectively).

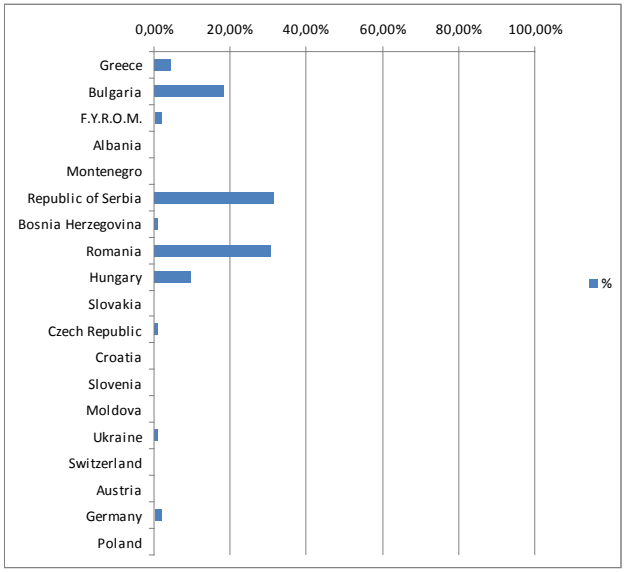
The contribution from the Lengyel I in Hungary, the Boian – Poljanica in Bulgaria, and the Gumelnița A in Romania was marginal. Absent were leading cultures such as the Vinča D, the Gradešnica – Slatino – Dikili Tash, and the Salcuța – Krivodol – Bubanj Hum. Throughout the Middle Copper Age, the *y* was concentrated, in very small numbers, in the Bulgarian Karanovo VI – Gumelnița – Kodjadermen and Varna I cultures as well as in the Cucuteni A3 – Trypillia B. In the Late Copper Age, it occurred in Coțofeni I-II and Varna II-III cultures.

With reference to the geographic distribution, the y concentrated in the Republic of Serbia plus Kosovo and Romania, which absorbed together nearly 63% of the occurrences. The eponymous settlement of the Vinča culture gathered nearly two occurrences on 10. The contribution from Bulgaria and Hungary was at a distance. Greece followed at a very lower rate. Not marginal was the evidence of this sign in F.Y.R.O.M., if one considers the small territory.

With 118 occurrences in total, the y was present in 63 sites as an element of complex inscriptions.

The figure indicates that this sign was very widespread in Southeastern Europe, appearing in nearly one third of the settlements that employed the Danube script. It had an average presence of 1.9 times in any settlement.

Geographical distribution of the sign DS 007.0			Geographical distribution of the sign DS 007.0
Country	*Absol. value*	*%*	
Republic of Serbia	36	30.6	
Romania	35	29.8	
Bulgaria	21	17.8	
Hungary	11	9.3	
Greece	5	4.2	
Kosovo	3	2.5	
F.Y.R.O.M.	2	1.7	
Germany	2	1.7	
Ukraine	1	0.8	
Czech Republic	1	0.8	
Bosnia Herzegovina	1	0.8	
Total	118		



The literate site where the y was most frequent is Vinča (eighteen examples, mainly in the Developed Middle Neolithic followed by the Late Neolithic). Quite far was Turdaș (eight instances, all in the Late Neolithic). Much farther were Parța (five occurrences in the Middle and Late Neolithic), Jela – *Benska Bara* (four, in the Late Neolithic), Kurilo (three, in the Late Neolithic), Banjica (three, in the Middle and Late Neolithic), Nova Zagora – *Hlebozavoda* (three in the Late Neolithic), Sitagroi (three in the Late Neolithic), Gradešnica (three in the Early Copper Age) and Daia Română (three in the Early Copper Age).

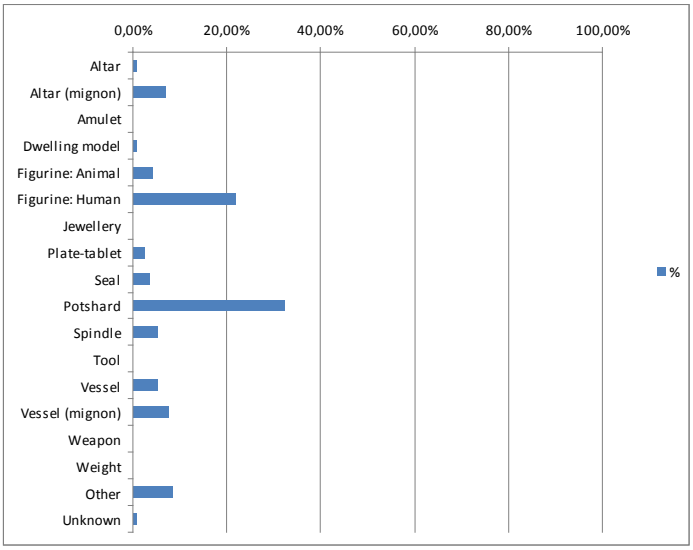
Concerning the object type distribution, the y is most frequently inscribed on potshards and human figurines. All the other artifacts follow very far. In the Early Neolithic, 32.1% of the *y* is condensed on miniature altars–offering tables. They are followed by potshards (20.2%). In the Developed–Middle Neolithic, anthropomorphic statuettes rate 20.9%, fragments of pottery 18.8%, mignon altars–offering tables 13.0%, and unusual objects 10.3%. In the Late Neolithic, potshards are 25.1% of the inscribed artifacts, human figurines 22.6%, spindles 11.4%, vessels 5.5%, and plates–tablets 4.7%.

In the Early Copper Age, 39.0% of the ys occur on anthropomorphic statuettes, 23.1% on potshards, and 12.0% on miniature vessels. In the Middle Copper Age, the y appears chiefly on human figurines (61.7%). In the Late Copper Age, it is present mainly on potshards (52.2%) and vessels (23.9%). As an isolated sign, the *y* is incised on all designated areas of pottery: rim/body, side near base, and base[1258] throughout the sequence Vinča B-D[1259].

The fate of the *y* in the Danube civilization evidences temporal movements across landscape and cultures / cultural groups, as well as the way signs disappear in one region only to reappear in others. It indicates solid socio-cultural linkages and effectiveness of the large-scale literacy network. The Danube script developed along a five-range hierarchical and decentralized communication web[1260]. Semiotic resources participated to extended networks, both at regional and inter-regional levels. They travelled broad distances with raw materials, goods, peoples, transmitting symbolic knowledge in both time and space. The script had continued usage in regular aggregation nodes that allowed the socio-cultural networks of literacy to extend beyond the spatial and temporal limitations of individual physical bodies and micro-instances of interaction. Information on writing technology and sign types was transmitted among socio-cultural groups living in close proximity as elements of wider socio-cultural patterns.

[1258] Winn S. 1981, p. 69, fig. 17.
[1259] Winn S. 1981, p. 104, fig. 26.
[1260] Merlini M. 2009d, p. 479.

Object type distribution of the 007.0			Object type distribution of the sign DS 007.0
Object type	*Absolut value*	*%*	
Potshard	38	32.20	
Figurine: Human	26	22.03	
Unusual objects	10	8.47	
Vessel (mignon)	9	7.63	
Altar (mignon)	8	6.78	
Spindle	6	5.08	
Vessel	6	5.08	
Figurine: Animal	5	4.24	
Seal	4	3.39	
Plate-tablet	3	2.54	
Dwelling model	1	0.85	
Altar	1	0.85	
Unknown	1	0.85	
Total	118		



The *y* finds strict correspondences at Çatal Höyük[1261]. It also has correspondences in Mesopotamian pictography with the quite rare sign ATU 224 = ZATU 549. Partial is the convergence with the sign AB01, ⊦, of Linear A[1262]. The same sign is present with the sound DA in Linear B[1263]. The ⊦ is the sound *ta* in the Cypriot syllabary[1264]. The *y* occurs also on the Phaistos disk: . It is also present at megalithic sites such as at Loughcrew (Ireland), Calderstones (England), and Les Ronches (France)[1265]. In all these instances, the *y* is modified by a small stroke according to the technique of diacritical variations.

Expanding upon the subject of the , this diacritical variation of the *y* is present in several inscriptions of the Danube script. In the core area of the Danube civilization, it occurs since the Early Neolithic. In the Starčevo – Criș (Körös) IIIB culture it appears on a potshard from Gornea (Romania) in combination with other signs of the script[1266]. At Gornea, linear decorations from Starčevo-Criș (Körös) IIIB-IVA have been found that could be antecedents to some signs of the Danube script and that are remarkable examples of how linear decorative incisions on ceramics might have evolved in a short time into linear writing. An example of literacy (below) matches the decorative design from two semiotic points of view: marks that are alike in outlines; and the linear sequence along a row of marks that are linear in shape and have standardized silhouettes. The following ceramic fragment, and others from the same site positioned on terraces over the Danube, are very significant for our understanding of early literacy in the region of the Iron Gates, and subsequently for the syncretism between the late phase of the Starčevo – Criș (Körös) assemblage and the earliest phase of the Vinča to which the Tărtăria tablets belong[1267].

[1261] Mellaart J. 1967, S. VI. A. 50, S. VI. B. 1. and S. E. IV. 1 (this is in an up-down position).
[1262] Godart L., Oliver J.-P. 1985.
[1263] Dickinson O. 1994, p. 196.
[1264] Chadwick J. 1990, p. 187, tab. 34.
[1265] Shee Twohig E. 1981.
[1266] Lazarovici Gh. 1977, p. XXVI.1; 1979, fig. VIIF, 35; 36.
[1267] Merlini M. 2009d, p. 511.

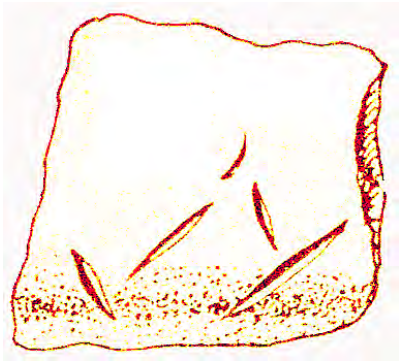


Fig. X.7. The ᛉ on a inscribed potsherds from Gornea (Romania). (Graphic elaboration by Merlini M. after Gh. Lazarovici 1977, pl. XXVI.1).

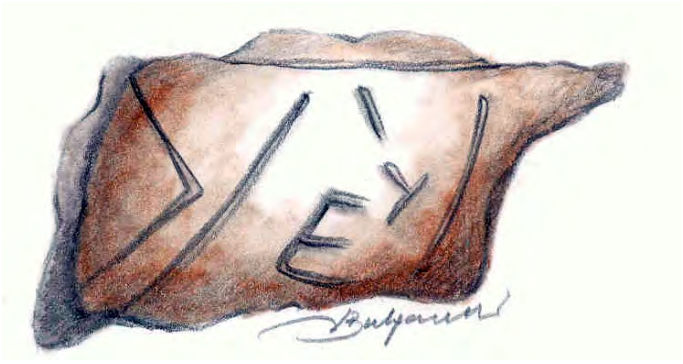


Fig. X.8. The ᛉ on an inscribed Anzabegovo-Vršnik IV fragment from an altar (Anzabegovo site, F.Y.R.O.M.). (After Daniela Bulgarelli © Prehistory Knowledge Project).

Significant is the occurrence on a wall of an Anzabegovo – Vršnik IV miniature altar (probably an incense burner or a lamp) from the multi-strata site of Anzabegovo (F.Y.R.O.M.)[1268]. The text is framed in horizontally aligned metopes by an upper horizontal line and vertical lines. Within any cell the reading sequence of the signs is in vertical. The ᛉ is associated with an E. The Anzabegovo – Vršnik group evolved on an autochthonous basis, spreading gradually into the entire upper Vadar region throughout the time span ca. 5400–5100 CAL BC[1269]. During the IV phase, the group reached the end of its existence, abandoning some settlements due to a decreased abundance of natural resources.

Anzabegovo–Vršnik IV matches the Vinča B stage at Tărtăria. This chronological frame differs from the view of M. Garašanin, who correlated it with the Vinča A assemblage[1270], and from the Greek chronological framework, which inserts the Anzabegovo – Vršnik IV phase in the Late Neolithic[1271]. All the occurrences of the Danube script in the Anzabegovo – Vršnik IV horizon are from fragments of pottery (87.8%) and miniature altars–offering tables (22.2%). In the Bulgarian Middle Neolithic the ᛉ occurs on walls of a miniature altar from Lukanovo darvo (near the village of Gradeshnitsa, Bulgaria)[1272].

In the Vinča C culture, the ᛉ is preeminently positioned on a potshard from Vršac – *At* (Republic of Serbia)[1273]. The ᛉ is present on several Tisza potshards from the rim area discovered at Čoka – *Kremenyák* (southeastern Hungary)[1274]. It also occurs on a Butmir I potshard from the eponymous settlement[1275]. The ᛉ is a central element positioned on the breasts of a Varna I upright female statuette. The breasts are small, fixed to the torso, and the sequence of signs is shallow, incised at their left, right, and between them. The statuette was discovered in an empty grave (*kenotaph*) at the prehistoric necropolis of Durankulak (Dobrich region, Bulgaria). It is 24.3 cm high and is dated to 4550–4450 CAL BC[1276]. The head is modeled in triangular-cubic proportions.

Fig. X.9. The ᛉ within a sequence of signs on a mini altar from Lukanovo darvo (Bulgaria). (After Daniela Bulgarelli © Prehistory Knowledge Project).

The nose protrudes in relief with an oval tip. On the left arm, she wears a copper bracelet in a rectangular shape. The pubic triangle is marked with incised lines. Below, a geometrical incised decoration occurs, most probably showing the clothing on the preserved part of the right thigh of the figurine. (This figurine is already mentioned in Chapter VIII.) Even though the tomb had no

[1268] Korošec Paula, Korošec J. 1973, tab. XIII.5, section 6/1, 0.3–0.6; Gimbutas Marija 1976, p. 154, fig. 109 b.
[1269] Merlini M. 2009d, p. 556.
[1270] Garašanin M. 1971, p. 143; 1973; 1978; 1979; 1980.
[1271] Zdravkovski D. 2006, p. 106.
[1272] Nikolov B. 1992, fig. 10.3.
[1273] Jovanović S. 1981, p. 144, 171.
[1274] Banner J. 1960, pl. VI.11; Merlini M. 2009d, p. 263, fig. 5.181, 597.
[1275] Perić S. 1995, tav. XV/7.
[1276] Vajsov I. 2002, p. 257–266, pl. 251; Todorova Henrieta et al. 2002, tab. 71, 17–18.

human corpse, the female figurine was buried in it, and it was filled with funerary goods, including offering vessels with lids, a blade of silex, and six pearls made of malachite[1277].

A *y* accompanied by two strokes occurs on the shoulder of a Late Neolithic anthropomorphic statuette from Bilzingsleben (Germany)[1278]. The signs are diagonally arranged, but their reading sequence is horizontal. The statuette is engraved with many other emblematic signs. The same diacritical variation appears on a Varna III vessel from a male grave 977 of Durankulak cemetery (Bulgaria)[1279].

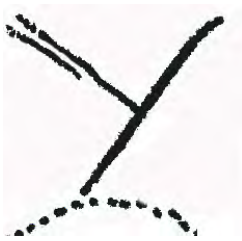


Fig. X.10. A Y diacritically modified by a dash on a potshard from Vršac–At (Republic of Serbia). (After S. Jovanović 1981, p. 135, XVII,2).

Fig. X.11. The incised on a female figurine from Durankulak (Bulgaria).

Fig. X.12. On the left, a y along with two strokes on a Late Neolithic statuette from Bilzingsleben (Germany). (After Daniela Bulgarelli © Prehistory Knowledge Project).

In conclusion, from the comparison of the Transylvanian with the Danube script and other ancient scripts it emerges that the *y* sign and its diacritical variant are typical of the literacy that developed throughout Neolithic times in the Danube Basin. The *y* is part of the set of key marks appearing in the whole range of channels for communication, through ornamental design, symbolic meaning and, finally, texts from the system of writing. The occurs restrictedly within the script framework as an element of bi-or-more sign inscriptions. It is a permanent variation of the *y*, being present throughout the whole sequence of the Danube script from the Formative to the Eclipse stage. The diacritical dash adds a qualification/attribute to one of the strongest root-signs of the Danube script: the y scores the main number of occurrences after the V, the Λ and the X. Unfortunately, its meaning completely escapes us.

Sign repetition in a single inscription as a smoking gun to prove the existence of the script

Another sign depicted on the rectangular tablet with a hole is an eight-like sign or an unsqueezed hourglass-like shape, if recognized in a standardized form (sign 6 in fig. VIIC.24a).

The sign (DS 064.0)[1280] is addressed by *DatDas* among the pictographic/ideographic signs depicting items of material culture (e.g., tools, utensils, implements with different functions, vehicles). It appears twice on this Transylvanian artifact. Skeptics who reject the occurrence of an archaic script in Southeastern Europe throughout the Neolithic and Copper Age time-frame hold up a supposed low incidence of sign repetition in single inscriptions as a smoking gun to disprove its existence[1281]. However, it is a claim without any statistical support. Sign repetition in a single inscription, turned off from any symmetrical intention to compose a frieze, as on the tablet under investigation, strongly indicates the occurrence of writing technology. The presence of sign repetition in the same text is not an isolated wonder that appears only at Tărtăria, but occurs in many other inscriptions belonging to the

[1277] Todorova Henrieta et al. 2002.
[1278] Hansen S. 2007. II, tab. 501, fig. 6.
[1279] Todorova Henrieta 2002, tab. 163–6.
[1280] It is listed as sign 184 in S. Winn's 1981 inventory, and is located among the pictograms. It is sign DS 172 in Winn's inventory of 2004, where it is inserted inside the category of the ideographs/pictographs. However, the DS 198 is a sign that fits more precisely the evidence in the outline from Tărtăria. The clepsydra shape is OE 58 in H. Haarmann's 1995 repertory, which records it among the highly stylized ideographic signs with a possible naturalistic origin. It is code 50j1 in Gh. Lazarovici's catalogue of signs and symbols.
[1281] Farmer S. 2003a, p. 28.

Danube script. For example, a multiple repetition of five signs occurs on the aforementioned mignon globe from Lepenski Vir: the ⟨X⟩ recurs seven times (five times as isolated sign, one time in duplicate form, and one time in a compound sign), the ⟨+⟩ reappears six times, the ⟨↓⟩, the II, and the ⟨Y⟩ three times, and finally the ⟨†⟩ two times.

The hourglass-like sign recurs six times in the databank *DatDas*. In the Developed–Middle Neolithic, it clusters in the Vinča A1 and Vinča A2, to which the tablets from Tărtăria belong. In the LBK II, coeval with Tărtăria (5400–5200 CAL BC), the sign under investigation is present on the head of a human figurine from Bad Naumheim – *Nieder-Mörlen* (Germany)[1282]. In the Late Neolithic, the ⟨⧖⟩ is present in the Turdaș culture on a doughnut-shaped cultic disc. It is made of stone and has a diameter of 9.4 centimeters[1283]. The surface is covered with a thick black slip. The disc has one rounded face and a leveled one, which are separated on the outside edge by a zigzag line. The signs are positioned in a circle, turning around the axis. At the moment, I am exploring the possibility that they might express a sequential constellation map or an archaic zodiac incised and filled with white paste aimed to highlight the groups of stars over a night black sky. It has been evidenced that constellation or calendar symbols have sometimes influenced the development of various scripts. With the identification of a sequential constellation map from Turdaș, it appears that a similar relationship existed between astral symbols and the Danube script. In fact, there is a significant correspondence between the marks over the cultic disc and the signs sorted out from the inventory of the Danube script[1284].

In all the instances recorded by the databank of the Danube script, the hourglass-like sign is a component of complex inscriptions with both format and sequence of signs (orientation) in a horizontal line. Therefore, it is a constitutive element of sign groups that explicitly organize the text for readability. From the early period of Vinča literacy, to which the Tărtăria tablets belong, the ⟨⧖⟩ is observable not only in sign groups, but also as an isolated sign. It appears on the body of pottery from Banjica (Republic of Serbia)[1285].

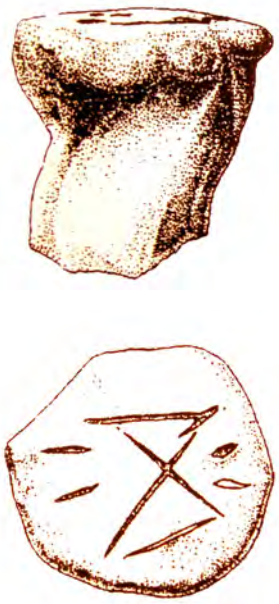


Fig. X.13. The hourglass-like sign on the head of a human figurine from Bad Naumheim – Nieder –Mörlen (Germany). (Graphic elaboration by M. Merlini after Sabine Schade-Linding 2002, p. 124, fig. 6/2).

Fig. X.14. The hourglass-like sign within the sequential constellation map incised on a cultic disc from Turdaș.

The sign DS 064.0 of the Danube script has partial equivalences in many inventories of other ancient systems of writing. It has been compared to pictography from Uruk by different scholars. However, they selected divergent pictograms as similar to the Transylvanian sign and none of them is convincing. The

[1282] Schade-Linding Sabine 2002, fig. 6; Merlini M. 2009d, p. 555.

[1283] Roska M. 1941, pl. CXXVIII, fig. 18; Popović Vl. 1965, p. 39, fig. 23; Vlassa N. 1971, fig. 11, 1976, p. 172–173; 1971, p. 43–44, fig. 5, fig. 14; 1976, p. 180. The artifact is in the National History Museum of Transylvania in Cluj-Napoca. Inventory V 9294.

[1284] Merlini M. 2009d, p. 384 ff., 570.

[1285] Winn S. 1981, p. 75.

clepsydra sign has faint remembrances with the Sumerian pictogram (Jaritz #458a), meaning 'house'. A. Falkenstein focused on Protocuneiform pictographs ATU 543, , and ATU 810, [1286], but without any success. J. Makkay picked out the quite widespread pictograph ATU 644, and a mark from Jamdat Nasr [1287]. The Mesopotamian signs are in general drawn with a medial line and less frequently without. In the first case, the pictogram is interpreted by Jaritz as *Rohrhütt* ('roof of a hut')[1288], and by Langdon as 'house', 'palace', or 'temple'[1289]. In the second instance, it is considered as a 'club and battle measurer, main instruments of the butcher'[1290]. According to Hruška, it is a temple gate or entrance[1291]. Unfortunately for these interpretations, the east-west likeness is convincing only if one postulates that the signs on the Tărtăria tablet are "imperfectly executed"[1292]. In my view, a better graphic parallelism would be the Protocuneiform sign ATU 470: .

At the opposite, the similarity in shape with the clepsydra sign occurring on the black stone cultic disk from Turdaș and other artifacts of the Danube region is significant. In Akkadian cuneiform, the is sign 128 according to Labat's *Manuel d'Épigraphie Akkadienne,* the cuneiform sign manual used by most students in Sumerology[1293]. The meaning is 'temple' or 'father' with the phonetic value AB[1294]. The clepsydra-form incised on the Transylvanian tablet finds a partial convergence in shape with sign 234 of the Indus script that is rotated 90 degrees[1295].

Fairservis calls it a "drum sign" and reminds us that "The hour-glass shape is found in numerous drums of India even today"[1296]. This musical instrument is used in connection with certain religious services, and might therefore be regarded as having a protective or propitious significance[1297]. On a seal-amulet from the Indus civilization[1298], the horned God Pashupati (' Lord of Animals') is portrayed in a yogic posture surrounded by wild animals. The divine phallus is noticeably erect. He is seated on an hour-glass stool loaded of mystical symbolism[1299]. This drum type is also carried by two of a small assemble of terracotta 'musicians' and 'dancers', both female and male, discovered at Harappa. One of these female musicians playing hourglass drums is called 'Mother Goddess from Harappa'. Similar evidence comes from Mohenjo-Daro.

The sign recalls the Egyptian sound sign for 'tjs', 'tjz', and the Determinative for knot (S24 in Gardiner's list concerning Crowns): . Compared with the Aegean scripts, the sign from Tărtăria partially matches the rounded form with the sound *le* in the Cypriot syllabary[1300]. A convergence in shape claimed with the sign A317, , of the Cretan Linear A[1301] is implausible.

In conclusion, if the finds faint graphic parallels in ancient Near Eastern and Aegean systems of writing (apart from the Indus script) it is deeply rooted in the Danube script where it is present mainly in its core culture and developing area, clustered in the early Vinča and in the territory between Transylvania and Serbia. They are exactly the chronological and geographical coordinates to which the tablets from Tărtăria belong.

There are different opinions concerning the possible meaning of the Transylvanian sign depicted as an eight-like or an unsqueezed hourglass-like form. They go from a temple entrance or the number 3 or 30[1302] to a storage pot suggesting that the dead buried at Tărtăria was a diligent and frugal person[1303]; from an altar for worship[1304], to a cup for collecting sacred liquid. The last is the

[1286] Falkenstein A. 1965.
[1287] Makkay J. 1973, p. 2, figs. 9 and 10.
[1288] Jaritz K. 1967.
[1289] Langdon S. H. 1928.
[1290] Deimel A. 1947.
[1291] Hruška B. 1987.
[1292] Makkay J. 1973, p. 2.
[1293] Badiny F. J. 1966; Kolev R. 2008, p. 3.
[1294] Badiny F. J. 1966.
[1295] Parpola A. 1996, p. 167, tab. 11.1.
[1296] Fairservis W. 1992, p. 110. The sign is commonly shown with thin lines which define the drum heads, as at Tărtăria. Fairservis W. categorizes this typology as M–3 (type MD 1937–473).
[1297] Walsh E. H. C. 1938.
[1298] Seal n. 420 of the Ashmolean Museum (Oxford).
[1299] During Caspers E. C. L. 1992, p. 110.
[1300] Chadwick J. 1990, p. 187, tab. 34.
[1301] Haarmann H. 1995, p. fig. 90.
[1302] Hruška B. 1987.
[1303] Friedrich K. online.
[1304] Lazarovici Gh. 2002.

interpretation I support because its shape recalls the fragmented high-pedestal bowl discovered in the ritual pit-grave.

Graphic parallels with hourglass drums are also evocative. In the Danube civilization, such a musical instrument is known since the Late Neolithic. It was made of clay and leather and was usually decorated with symbolic ornaments. Evidence of it comes from Ebendorf (Sachsen–Anhalt, Germany) belonging to the Walternienburg–Bernburg culture of the middle IV millennium BC[1305]. The vessel is hollow. The upper part was originally stringed with the skin of an animal and used as the resonance body. Seven horizontal eyelets have been drilled at the upper rim for fixing the covering. The instrument was played with bare hands. The decoration is engraved in *Furchenstichtechnik* style. In the upper area, twelve vertical motifs in the form of fir-needles are placed in a horizontal band. In the middle, there are seven horizontal lines deeply engraved. On the lower area, some circles have been impressed into the clay. Similar decorated drums in the form of clepsydra are documented from the neighboring cultures of Funnel Beaker and Salzmünder. They served for musical entertainment, ritual activities, and transmission of communication signals. Most of these drums were deposited in graves. Another kind of drum is known from the Copper Age "Cult scene from Ovcharovo" (Bulgaria).

Fig. X.15. Late Neolithic drum from Ebendorf (Germany). (Courtesy of MU.S.EU.M. project 2006).

Fig. X.16. The blacktopped cup very likely discovered by Vlassa inside the ritual pit-grave. (Photo by J. Appelbaum).

A Tree of Life and Death or a solar sign?

A subsequent sign is positioned in the right cell under the hole (sign 7 in fig. VIIC. 24a) which is generally interpreted as a tree[1306]. Alternatively, the sign might be interpreted as a solar or astral symbol. In any case, the ✳ occurs only at Tărtăria, therefore, it is not recorded by *DatDas*.

If the sign represents a vegetal motif, it is very uncommon and notable, because it can convincingly stand for a couple of trees or even only one tree. It might depict two joint trees, one upright and the other upside down, but it might also indicate a tree with two faces, one pointing upwards and the other developing downwards, or shown with both branches and roots.

[1305] It is held at the Museum of Pre- and Early History of Berlin. Inventory number, I 1744.
[1306] Komoróczy G. 1974; Winn S. 1981, p. 144, 172, tab. V.

This *arbolet* grapheme is not true to nature, as the previously analyzed signs. If the boughs were horizontally positioned, the roots of the tree are not hidden in the ground[1307]. The sign schematically recalls a sacred item, possibly a holy tree, with its crown and roots connected with ascending and descending energies, as essential, constituent features of its manifest (exoteric) element and its hidden (esoteric) element. The same tree its stretches branches towards the sky while its roots descend towards the earth. The crown could express the visible manifestation of creation, the full development of life, growth, action and celestial knowledge (male principle? belonging to a male divinity?). The roots might represent the source of life and fertility, nourishment and deep spiritual knowledge connected to life and rebirth (female principle? belonging to a female divinity?).

Some scholars identify the Transylvanian sign as the Sumerian ATU 192 . It has sign number Jaritz #14. The pictogram depicts the "pinnate leaves at the top of a date palm" and means "top"[1308]. More important it indicates what, in cuneiform, is Dingir, the determinative for 'deity'. Generically, dingir can be translated as 'god' or 'goddess'. It had the form at Uruk around 3200 BC and at Jemdet Nasr around 2900 BC. The star on a Protocuneiform tablet seems to mean 'goddess'. However, it is not the image of a goddess. It might mean 'Inanna' through a picture of an immediately recognizable thing that represents something else (the star) and a logogram sign that stands for a word in speech[1309]. Exploring astral associations, some researchers correlate this sign with a variation of the symbol for the sun in Sumerian–Mesopotamian art: [1310] or .

The extra-vegetal associations are interesting for the identification of the meaning of the sign . In Sumerian literacy, as well as at Tărtăria, it is graphically based on a Greek cross (*crux quadrata*), not on a Latin cross (a cross with a longer descending arm), as the vegetal motifs in general are. On the other side, one can observe that on the Transylvanian tablet the vertical axis is much thicker than the horizontal axis. A Chinese ancient hieroglyph similar to the Tărtăria stands for 'tree'[1311]. Also, in Sumerian, ATU 192 is a sign that illustrates a plant-top. The interpretation of this sign is a challenge with many semiotic traps.

The from Tărtăria matches in part the form with sound *e* in the Cypriot syllabary[1312]. It has a partial graphic parallelism with the sign 256 of the Indus script: [1313]. The Transylvanian sign has good convergence with the sign AB44, , of the Cretan Linear A[1314], often considered 'radial petals', but not with the correlated , 055, of the Cretan Hieroglyphic.

As evidenced by our survey, this vegetal or solar sign is typical of the Danube civilization, but finds some convergences in extra-European early writings and, at most, in Cretan Linear A. At Tărtăria, it may represent a *cryptosign*: a sacred and secret sign conferred by the means of an initiation. I support the interpretation that recognizes it as an archetypical tree, because it seems to be of the same species of the boughs afore analyzed. The meaning might be 'full blossoming' or 'the holy twofold tree characterized by crown / roots, ascending / descending energies, full and visible development of life / invisible source of life, growth / nourishment, celestial / telluric knowledge, exoteric knowledge / esoteric knowledge, male principle / female principle, and male divinity / female divinity. At the early Vinča community of Tărtăria, the archetypical origin of the Tree of Life and Death seems to lay farther back than the Neolithic culture[1315].

1307 Golan A. 2003, p. 369.
1308 Jaritz K. 1967.
1309 Powell B. 2009, p. 65.
1310 Kolev R. 2008.
1311 Golan A. 2003, p. 369.
1312 Chadwick J. 1990, p. 187, tab. 34.
1313 Parpola A. 1996, p. 167, tab. 11.1.
1314 Godart L., Oliver J.-P.1985.
1315 A tree of two faces as the Tree of Life and Death occurs in the mythology of several subsequent cultures. *Genesis* discloses the existence of two sacred trees in Eden – the Tree of Life paralleled by the Tree of Death (Chapter 2, Verse 9). Via the first tree, humanity ascends from its "animal" nature to spiritual realization and salvation. By means of the second tree, the Tree of Knowledge of Good and Evil, comes the "great fall", the descent into materialism and bondage to intellect and carnality. The symbol of the Tree of Knowledge possibly derives from associations with deities or the presence of spirit beings living within it and conferring upon it oracular functions (Chemery P. C. 1987, p. 244). Although the two trees stand as rivals in this tradition, they are one, as on the Tărtăria tablet, being representations of the same idea of spiritual struggle and transformation from the profane to the sacred sphere, since it is only by death of the mortal constituent of the human being (the ego-personality) that the immortal kernel (the soul) can truly live. The duality of the sacred tree is still alive in the Judaic oral tradition. When nighttime arrives, the Tree of Death appears to fall away at dawn, when the Tree of Life ascents and people come to life again. It is maintained that this phenomenon happens in order to "see if there were any man of understanding that did seek after God" (Coomaraswamy A. 1986, p. 391). It is a Tree of Life to the "awakened" person (i.e., death to the worldly life and being alive for the spiritual one), and a Tree

FROM A CAT TO A BULL

The pictogram/ideogram of an animal head[1316] occurs within a cell positioned on the right side under the hole (sign 8 in fig. VIIC. 24a). The portrait style is unusual for a sign of the Vinča culture. According to Winn[1317], this pictogram/ideogram of a frontal head may stand for the earlier, or at least naturalistic version, of the more schematized signs generally found in the Vinča culture, where animal representations have become stick figures. However, the pre-post connection between a naturalistic head and highly stylized bodies is quite hazardous. Besides, pictograms depicting schematic quadrupeds such as are present in the Danube script since the Banat II culture, at Parța, that is coeval with Tărtăria being dated to 5300–5000 CAL BC[1318].

The iconic sign appears only at in the Tărtăria site. Therefore, it is not accounted by *DatDas*. What kind of creature might be represented on the Transylvanian tablet? Disconnected by any archaeological record about the Vinča A culture, some researchers identify the frontal head of an animal as a horse[1319]. Others see a donkey[1320]. It is a cat according to many scholars[1321]. They list a series of observations to support the identification. The presence of cats is attested for Neolithic villages in Southeastern–Central Europe[1322]. The depiction of the head of a feline as a sacred or totemic beast is consistent with the discovery of an eight-month-old cat (*Felis silvestris species*) buried with what might have had been its owner in a Neolithic grave at Shillourokambos, in southern Cyprus, dated ca. 7000 BC[1323]. Haarmann reminds us that the partly androgynous figure of the goddess with feline attributes originally developed during the VII millennium BC[1324]. The interpretation of the sign on the tablet from Tărtăria as the head of a cat is correlated with premises concerning the sacralization of this animal in the Danube civilization and its employment as a religious symbol expressing "an attribute of the Great Goddess... such as the butterfly or the bee"[1325]. The sign of the cat's head frontally rendered is frequent in several archaic writings such as the Cretan hieroglyphic system (CH 75) and the Cretan Linear A (, AB80). According to Grumach, the cat's head hieroglyph, (Evans, SM P75), is regularly associated with astral symbols and stands in close interrelation with astral beliefs[1326]. However, we have no archaeological evidence of any sacralization of the cat in the Danube civilization. Furthermore, muzzle and ears incised on the Transylvanian tablet do not resemble the features of a feline.

Archaeological, cultural and semiotic elements induce us to interpret the sign as a bucranium[1327], similar to that one from a cultic artifact discovered at Verteba cave (near Bilcze-Zlote village, northwestern Ukraine). It is a Cucuteni B2 – Trypillia C1 (ca. 3700–3500 BC) bone plate carved in the shape of a bull's head with emphasized horns[1328]. An hourglass female figure with raised arms (the female divinity?) is incised within the outlines of the head of the emblematic animal.

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of Death to the person still involved in the world and thus dead to spirituality. The duality within the same cosmic tree as the Tree of Life and Death possesses even eschatological significance, since the first tree prompts creation through vegetative fertility and the second tree bears within it the potentiality for the "the end" of the world (James E. O. 1968, p. 246). In several other traditions, the Tree of Knowledge is depicted turned upside down when it becomes the Tree of Death. Observing that the tale of the divine creation of both the tree of men and the tree of women is findable in very distant territories such as in Siberia and Polynesia, Golan A. infers the primeval idea that one of the mythic trees had belonged to the goddess and the other to the god. The former had been called Tree of Life because the embodied goddess gives birth (Golan A. 2003, p. 374) and, in several traditions, she created all living beings (Butterworth E. A. S. 1970, p. 12). The latter tree – portrayed inverted, growing downward and belonging to the male principle – is defined in the Vedic treatises *Upanishads* as the Tree of Knowledge. Several Hindu myths represent the related underworld god as the source of knowledge, wisdom and immortality. Why is this tree of chthonian wisdom turned over? The ancient cultures believed that everything in the underworld is upside down, the dead walk there with the soles of their feet against ours. Growing downward was normal for trees.

1316 It is listed as sign 192 in Winn S.'s 1981 inventory, and is located among the pictograms. It is not present in S. Winn's inventory of 2004. It is the first sign, OE 1, in H. Haarmann's 1995 repertory, which records it among the pictographic/ideographic signs depicting animals. It is code 273 in Gh. Lazarovici's catalogue of signs and symbols.

1317 Winn S. 1981, p. 192.

1318 Merlini M. 2009d, p. 466.

1319 Friedrich K. online.

1320 Hruška B. 1987.

1321 Masson Emilia 1984; Haarmann H. 1995, p. 37.

1322 Champion T. et al. 1984, p. 130.

1323 Vigne J.-D. et al. 2004, p. 259.

1324 Haarmann H. 2002.

1325 Haarmann H. 1995, p. 37.

1326 Grumach E. 1967, p. 7.

1327 Komoróczy G. 1974.

1328 Soudsky P., Pavlu I. 1966, p.117; Gimbutas Marija 1982, p. 293, Pl. 178; 1989, p. 271, fig. 420. According to Gimbutas Marija (1982, p. 293), the female figure is "a 'Bull-horned goddess in the shape of a bee' rendered on a stylized bull's head of bone".

At Tărtăria, horns are depicted with a very large contour due to the engraving method aimed to highlight their sacred power. They have also been acutely deformed by acid treatment suffered in the museum. The sign incised on the tablet does not represent a divinity identifier, but most probably, an animal sacrificed in liturgies. The bull was a point of reference, not only symbolically, but also economically at Tărtăria. This Neolithic farming community was described by an evolved economy from cattle breeding.[1329] At Çatal Hüyük, Mellaart found in shrines several bucrania with large, emphasized and stylized horns[1330].

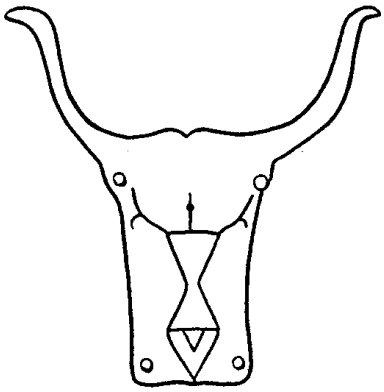


Fig. X.17. A Cucuteni B2 – Trypillia C1 female figure incised within a bone plaque in the form of a bull head. (After Marija Gimbutas 1982, p. 293, pl. 178).

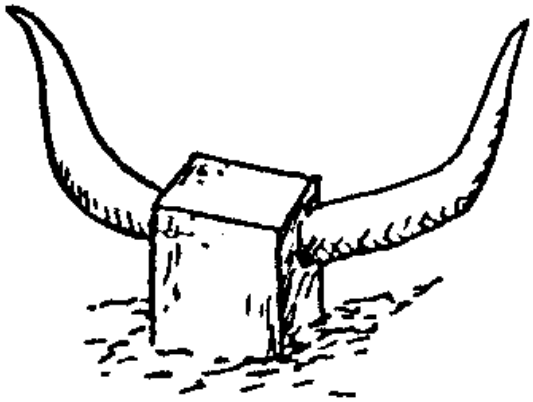


Fig. X.18. Bucranium with emphasized and stylized horns from Çatal Hüyük. (After J. Mellaart 1967, p. 112).

The naturalistic from Tărtăria matches the form or , depending on the inventories, in Proto-Sumerian pictography. It is ATU 47, sound GU, meaning the bull[1331]. A correlated sign is present in Akkadian cuneiform. It has the phonetic value GUD and is Labat number 297. Through this sign, the god ENLIL (god of the air and king of the Sumerian gods) was proclaimed in liturgies 'GUD SUN', meaning 'powerful BULL' or 'shining BULL'. The is sign 011 in the Cretan Hieroglyphic. The has the sound value *hu* in the regular syllabary of the Hieroglyphic Luwian[1332].

To summarize, the bucranium sign appears three times at Tărtăria. It is not present in the Danube script, but in symbolic imagery of the Danube civilization. It is quite widespread in the other early scripts.

A LIBATION OR A BLOODY SACRIFICE?

The far right metope includes two signs vertically aligned. Therefore, an interpretation of the meaning should contemplate them in their relationship[1333]. The sign on the upper register (sign 10 in fig. VIIC.24a) recalls a compound sign of the Danube script composed of sign DS 107.1, , plus sign DS 018.2: . In Hieroglyphic Luwian the rhombus is the sign with sound value *mì*[1334]. However, I think it has to be recognized as a whole.

In search of an East-West drift for literacy, and utilizing Falkenstein's detection, Makkay indentifies the sign positioned above as a bull's head. He states it as the result of two contradictory comparisons. On the one side, he assumes as a point of reference a compound sign incised on a fragmented spindle-whorl from Turdaș[1335] that has been already explained as a "bovine head in *profile*" (italics is mine). Here the sign under investigation is among five other signs arranged in a circular sequence. On the other side, he accepts the quite different interpretation from Falkenstein that interprets the Tărtăria sign under investigation as "the *bull-face* bucranium" (italics are mine)[1336]. In profile or in front, the sign should be

[1329] See the related chapter in this book.
[1330] Mellaart J. 1967, p. 112.
[1331] Falkenstein A. 1965, tab. 2, 3.
[1332] Hawkins D. 2000.
[1333] The pair of signs is listed as code 270d in Gh. Lazarovici's catalogue of signs and symbols.
[1334] Hawkins D. 2000.
[1335] Inventory number V 9302. Roska M. 1941, pl. CXXIX, 11; Todorović J. 1969, pl. VI, 3; Winn S. 1981, p. 269, fig. 19.
[1336] Makkay J. 1973, p. 3.

a bull head. Then Makkay joins the daringly recognized bucranium with the idea of a supposed building depicted below (when dealing with the previous clepsydra sign, I have already mentioned the temple or house identification according to the Mesopotamian-gate). Makkay concludes, conjecturing that the combination of the two signs might represent a round tower-like building surmounted by a bucranium.

There are plenty of Mesopotamian images on tablets (from Uruk and Jemdet Nasr), seals (from the royal cemetery of Ur), and plaques (from Nippur) representing a bucranium hung at the architrave over the entrance of temples. However, in Transylvanian prehistory, this kind of building does not exist. But it does not pose a problem for the Hungarian scholar. Instead of concluding that, if this kind of buildings does not exist in the Danube civilization then the sign on the tablet should find a different recognition, he hazards that the European 'scribe' should have merged several Mesopotamian pictograms associating in a schematic way a round building (a tower, shrine, a temple, a sanctuary or a house) with a bull's head positioned above to symbolize the god venerated there, or some protective spirit[1337].

Fig. X.19. The sign under discussion underlined on a fragmented spindle-whorl from Turdaș.

Fig. X.20. Part of an inscription in "Proto-Iranian" on a fragment of a brick from Jiroft (southeastern Iran).

Fig. X.21. The sign within the far right box of the Tărtăria tablet.

The interpretation of the sign on the upper register as a bucranium is contradicted twice by the presence at the right of an actual bucranium on an inscribed baked mud-brick recovered in a palace near Jiroft (province of Kerman in Southeastern Iran)[1338], ascertained to the Elamite period, about 3000–2500 BC. Only a corner of the artifact remains. It bears two written lines. The team in charge recovered three similar inscribed baked mud tablets at the Ziggurat of the capital-city Konar-Sandal and maintains they are older than the Inshushinak inscription from Susa (ca. 3000 BC)[1339]. This script was discovered by French archeologist and prehistorian Jacques de Morgan who called it "Proto-Elamite", thinking that it was invented in southwestern Iran contemporarily with Proto-Sumerian (early third millennium BC) and assuming that it was a fully developed writing system – which nowadays is by no means certain, even if the numerical system is understood[1340]. The Iranian archaeologists have re-baptized this pre-cuneiform script as "Proto-Iranian" because they assume the origin of the Elamite script to be in the area of Jiroft, in the deepest levels of the excavations. Then, it spread across the country and reached Susa[1341].

The signs vertically coupled on the right area of the oblong drilled tablet have solicited dozens of readings. According to Friedrich, the scene depicts the secondary burial of Milady Tărtăria: the rhomboid is the urn holding both the bones, indicated with two lines above it; and the undrilled tablet probably represented the shape of the 'K' from the runic script[1342]. Conversely, Orescu surmises a beheading sacrifice using a double axe, as in Crete, having the head of the sacrificed animal depicted within a box located in the middle area of the tablet. With a fly of imagination, Orescu interprets the sign incised below

[1337] Makkay J. 1973, p. 4, 5.
[1338] Madjidzadeh Y. 2003.
[1339] Madjidzadeh Y. 2007.
[1340] Robinson A. 2002, p. 200.
[1341] Merlini M. 2009d, p. 55.
[1342] Friedrich K. online.

the axe as a cup for a liturgy similar to Christian Baptism or Eucharist[1343]. More prosaically, Komoróczy sees jars and vessels for measurements[1344].

In Chapter VII, we related the couple of signs to religious ideas and procedures concerning *libatio*. The rhomboidal sign could represent the vase for pouring out the sacred blood of the sacrificed bull, whose head is shown in the previous cell[1345]. The related sign, incised below, indicates the cup for worship that collects the sacred liquid. As already mentioned, analyzing the other clepsydra-shape, it is very similar to the high-pedestal bowl recovered in fragments from the ritual pit-grave and possibly employed during the ceremony held after the death of Milady Tărtăria.

XC. Investigating the signs on the circular tablet

The exoteric message informing and enchanting bow

The stylized bow+arrow sign[1346] is found at Tărtăria as an element of inscriptions (sign 9 in fig. VIIC.6b), but not elsewhere in the Danube civilization. Therefore, it is not recorded by *DatDas*[1347]. It is usually interpreted as a bow with arrow[1348]. The sign from Tărtăria is comparable with a mark that occurs, within an isolated context, on a fragment of pottery from the rim/body side discovered at Turdaș. In literature, it is known as an 'anchor' shape[1349].

A naturalistically depicted bow and arrow occurs on a Cucuteni A-B fragment from an amphora recovered at Lozna (municipality of Dersca, Botoșani district, Romania). The fatal moment is the same at Tărtăria, as well as the rendering of the design. It fixes the dynamic shot of the arrow that is pursuing the target and, in cartoon cognitive style, both the armed weapon and the flying dart are described. The allegory and target are clear at Lozna. The bow has just launched a long, thin, sharp arrow into the air. It is flying against the sky with its target the constellation of Cassiopea (indicated by a W) that is next to the sun and a reversed peacock, a regal bird[1350]. Next to the weapon, there is a human being. Much less apparent is the situation at Tărtăria.

Fig. X.22. The 'anchor' from Turdaș.

Fig. X.23. Bow and arrow highlighted on a Cucuteni A-B fragment from Lozna (Romania).

Fig. X.24. ⊕ ideographs from Anatolia, ca. 7000 BC. (After J. Mellaart 1975, p. 78).

[1343] Orescu Michaela 2005.

[1344] Komoróczy G. 1974.

[1345] It is the sign 270d1 in Gh. Lazarovici's catalogue of signs and symbols.

[1346] The sign does not depict a cross encompassed by a semicircle, as we have substantiated in the previous chapter.

[1347] Misunderstanding the crossbow-like sign for a more regular and symbolically significant ⊕, S. Winn's 1981 inventory lists it as sign 177 and inserts it among the pictograms. Lazarovici's catalogue of signs and symbols properly identifies the sign and gives it the code 113f1.

[1348] Komoróczy G. 1974.

[1349] Roska M. 1941, pl. CXXXVI, 10; Todorović J. 1969, p. III, 19; Makkay J. 1969, p. A30, 11; Winn S. 1981, p. 276, fig. 81. The artifact is held at the National History Museum of Transylvania in Cluj-Napoca, inventory number V8758.

[1350] Teodor Silvia, Şadurschi P. 1983; Şadurschi P. 1983; Lazarovici Gh., Teodor Silvia 2006; Lazarovici Cornelia-Magda 2004; Merlini M. 2009d, p. 667 ff.

Identical images of the ⊕ grapheme from different Neolithic, Copper Age and Bronze Age Eurasian cultures reveal stable analogical communicative formulas arising parallel according to an inner convergence of human technology and imagination/mentality under the frame of communities with similar structures and aims.

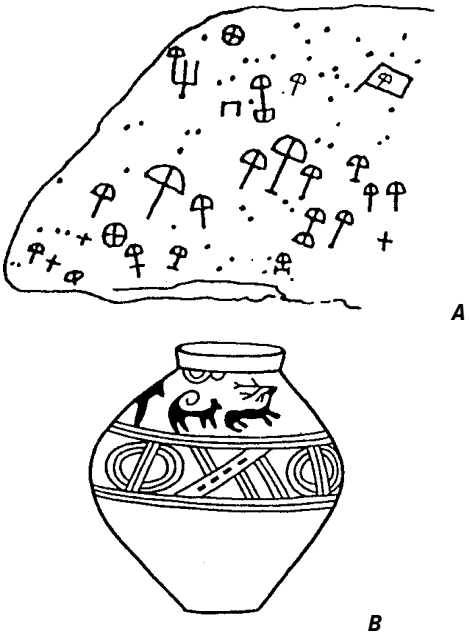


Fig. X.25. A – Plenty of ⊕ from Switzerland Neolithic rock art (after S. Giedion 1962, fig. 86); B – Φ ideograph on a Cucuteni – Trypillia vessel. (After A. Golan 2003, p. 317, fig. 365.4).

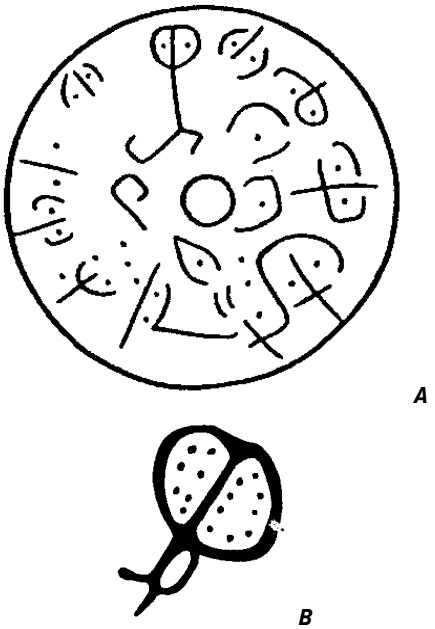


Fig. X.26. A – ⊕ graphemes from Troy (ca. 2000 BC) (after H. Schlieman 1875, p. 312); B – Rock art, Central Asia. (After A. Golan 2003, p. 317.2).

Golan collects some depictions of the ⊕ that he considers are generated from the Φ sign that enjoyed a prominent significance during the Neolithic. The grapheme Φ and its variant ⊕ could have meant both the two-partite heaven ("two regions of heaven" as mentioned in ancient Egyptian texts) and the two halves of the year[1351].

The bow+arrow sign finds some parallels with pictography from Uruk and Jemdet Nasr: sign ATU 721, ⍑, with the sound BA, meaning 'eye' and also 'to see'[1352]. In Akkadian cuneiform, it has the sound IGI, meaning 'eye', Labat number 449[1353]. Vaguer is the resemblance with the sign with sound BA ('offer', 'give'), Labat number 5[1354]. The bow+arrow occurs also on Hittite and Hurrite monumental inscriptions. The 𓌳 has the sound *hwi/a* in the regular syllabary of the Hieroglyphic Luwian[1355].

The Transylvanian sign ⊕ has a partial graphic parallelism with the signs AB20, 𐄩, and AB21, 𐄪, of the Cretan Linear A[1356], and the sign with sound *xe* in the Cypriot syllabary: 𐠊[1357]. It partially matches the sign 𐄩 with sound *zo* in Linear B[1358]. The 𐤒 is the letter qoph (phonetic value *q*) in the Phoenician alphabet. The associated Semitic expression is 'ape'.

In short, the bow+arrow sign is present in several inventories of ancient systems of writing. However, in most of the verified graphic parallels the bow is always pointing upward, towards the sky. At Tărtăria, it is placed in a horizontal position, pointing and elongating in the direction of two supposed bolts (>>), while the string is intended to shoot the arrow. These observations, when crossed with the identity of Milady Tărtăria as a magic-religious practitioner, open the possibility that the sign on the tablet symbolizes a communication tool utilizing the image of a hunting weapon. It could depict the dynamic, magical moment/action in which the arrow is shot, and the charm has taken off.

[1351] Golan A. 2003, p. 317.
[1352] Falkenstein A. 1965, p. tab.2, 3; Winn S. 1981, p. 190, fig. VI.
[1353] Badiny F. J. 1966.
[1354] Kolev R. 2008, p. 3.
[1355] Hawkins D. 2000.
[1356] Godart L., Oliver J.-P. 1985.
[1357] Chadwick J. 1990, p. 187, tab. 34.
[1358] Chadwick J. 1990, p. 158–9; Dickinson O. 1994, p. 196; Robinson A. 2002, p. 88.

Some religious and iconographic convergences with Hinduism can assist. In this religion, the bow (often) with flower arrows is associated with Maha Tripurasundari or Lalitā, the goddess of the Full Moon represented as a fifteen-year-old girl who is charmingly beautiful, three-eyed and clothed in red. It indicates a precise, determined, and creative action, without any hesitation. The bow stands for the mind, and the five arrows of flowers for the subtle elements *Tanmatras*[1359]. The bow reveals the quality of being perfectly centered and also the capacity to assume a razor-edged decision, lucidly individuating and pursuing an objective. On the other side, the bow is a tool for malice in the hands of this divinely handsome teenager. It unsettles situations and minds. It switches on a spark in hearts, but blinds them and makes their behavior uncontrollable. To summarize, Tripurasundari's bow is her device for precision by means of perfect self control, but it is also the implement that makes unwary victims hit by the arrow lose control. The hunter has full control on the action, but the pray loses its head; the blow enchants and enchains. Also at Tărtăria a creative act of will is illustrated through an arrow/spark shot off, but we do not know much more. We are even ignorant of who shot the two arrows. (Is divinity indicated in the covert and secret quadrant on the upper left side of the tablet?).

The semiotic context excludes the bow and (two plus one) arrows as weapons of a god[1360] or hero to kill someone[1361]. The most famous Neolithic archer-hunter is Ötzi the Iceman, who lived about 5300 years ago. The semiotic frame also leaves the bow and arrows out as a device to trigger wind and thunder[1362]. At Tărtăria, the bow and fired off arrows are represented within a ritual context of creation and enchantment. In prehistoric art, the bow is often depicted as a bewitching tool. In this case it assumes the form of a musical bow and the shot off arrows are sounds (viz. Orpheus' myth, in which the lyre in antiquity was a musical bow). It is a simple musical instrument consisting of a string supported and held in tension by a flexible stave made of wood. When tapped lightly with fingers or a short stick (the arrow) the string sounds. The tone can be amplified and varied by the mouth cavity of the player that serves as the resonator or by attaching a hollow vessel at one end of the bow. The instrument was probably the forerunner of all string instruments. With some improvements, it is still widespread from the Kazakh culture (in the form of a triangular bow with an external angle that is played by an arrow) up to African ones. In the Eurasian Neolithic, it was a normal hunter's bow used for music rather than as a weapon. Lucy Rault describes the technique of playing the instrument as the musician "places the string between his lips and strikes it with a thin stick. Modifying the volume by altering the position of his lips and of the tongue within the mouth cavity, the musician creates different harmonics to produce a tune"[1363].

The fact that the bow can have another purpose than as a weapon sounds unusual for several male archaeologists. However, the hunting bow and the musical bow are equiprimordial. Once invented, the bow was not only employed for hunting and making music, but also in fire-making as fire bow, and in carpentry as a bow-drill.

The earliest example of enchantment by the means of a musical bow is from the Magdalenian cave-sanctuary at Le Trois Frères (France). Here a therianthropic character has a bison head, horns, hoofed hands, and forelimbs, but also human legs[1364]. It is holding a bow and appears to be focused in pursuing a group of bison. The gesture has led to previous classifications of this enigmatic figure as a stalking hunter wearing an animal skin and the scene as either a portrayal of a disguised archer creeping up on his prey or hunting magic[1365]. Nowadays, several authors suggest that this figure was dancing and playing music on a bow held to the jaw to charm animals or to call to animal's spirits[1366]. Even the bison turning its head

[1359] In Sanskrit, the subtle, vibrating and radiantly abstract sources or original essences of the five elements are popularly given as earth, water, fire, air, and ether. When the *tanmatras* emanate what becomes the pertinent qualities and properties of nature, then they become the *mahabhutas* (foundation-substances of the world) and are the basis of the senses.

[1360] In the Babylonian creation myth, Marduk (the main god) uses the net to slow Tiamat (the mother of the gods) down, drives the winds down into her stomach so she can not close her mouth, and kills her by shooting an arrow into her heart (according to a version), or into her belly – splitting it, piercing her gut and devastating her womb (according to another version).

[1361] In Hindu mythology of *Ramayana,* Kusha (one of the twin sons of Rama and Sita) shoots the arrow of fire, but Lakshmana (Younger brother of Rama) rains the arrow with water and extinguishes it. Kusha then sends a snake-arrow, but Lakshmana pulverizes it with an eagle-arrow. In Greek mythology, Heracles lures the Lernean Hydra from its lair by shooting flaming arrows at it. After killing the serpent-like chthonic creature, the hero used the venomous blood to produce his own poisoned arrows. He utilizes them against mythical monsters such as the Stymphalian Birds and the three-headed Geryon.

[1362] See Nordic mythology and the Legend of Arthur in the Middle Ages that stands behind Woledge B., "Les manuscrits du 'Petit Artus de Bretagne," in *Romania* vol. LXIII 1937, p. 393–397.

[1363] Lucy Rault 2000, p. 151.

[1364] Breuil H. 1912, p.21.

[1365] Demouche F. et al 1996; Demouche F. et al 1998, p. 11.

[1366] Dauvois M. 1994; Clottes J.1999; Rault Lucy 2000.

Fig. X.27. The Magdalenian shaman with musical bow from Le Trois Frères (France). (After H. Breuil 1912, p. 21).

Fig. X.28. Dancing-musician hunters in a wall painting from Çatal Hüyük (VII millennium BC).

towards the source of the music appears to posses a double or mixed identity. It is subjugated by the sound of the shaman's musical bow. The ambivalence of the prehistoric bow (morphologically identical for hunting and playing music) shifts the interpretation to a consideration of the parallel ambivalences of the Magdalenian figure (stalker/shaman)[1367] and the scene (hunting / enchanting animals or evocating animal's spirits). Sacred dancing and music were functional for hunting magic. The distinction between religious and secular activities was not sharp, and the bow was incorporated in both. Native tribes in Central Africa still employ the same bow and arrow in both their hunting and music traditions. While they are walking in search of game, they play the instrument that is immediately turned into a weapon when sighting the prey[1368].

A spectacular ritual round pantomime that employs different musical instruments is reflected in a Çatal Hüyük wall painting of the VII millennium BC. Miniature dancing-musician hunters encircle an enormous wild foaming bull. They hold in hands small bows, disk-shaped drums, rattles and hook-like objects (probably beaters) to play music and to enthral the pray. Bows are raised and tightened. Such interpretation of the attributes is confirmed by the archaeological finds[1369]. Ritual circular dance around a totemic animal or tree is connected with the origin of musical art.

The musical bow as an enchantment tool in the hands of shamans became a very well established instrument in the Eurasian Copper Age. *It was initially utilized for* bewitching animals or evocating their spirits in hunting magic. *Its employment was extended* to trigger supernatural forces providing fruitful harvest, land fertility, cattle fecundity and well-being of the community. *A female musician* charming *animals by playing a musical bow is depicted on a* Copper Age *rock painting from IV–III millennium BC that was discovered at Hodjikent (near Tashkent in Uzbekistan)*[1370]. *Hunter goddesses without hands and head are represented at the centre of a deer* herd. *The schematic frontal figures have a conventional sign in the form of a circle instead of the vulva to emphasize fertility as one of the key concepts that gives meaning to the representation. One of the participants of the magic collective scene is a musician with a bow played by an arrow that is very similar to the musical instrument depicted at* Tărtăria. *The composition represents the idea of female significance as mistress of animals who attracts the animals by witchcraft and hands them over to the hunters as a sacrifice. Three female personages in a ritual dance with musical instruments, including a bow, appear in the same period in different regions of Eurasia as a result of an independent similar mentality without historical connection.*

[1367] Megaw J. V. S. 1960.
[1368] Magubane P. 1998, p. 156.
[1369] Stockmann D. 1986.
[1370] Okladnikov A. P. 1964, p. 74; Hujanazarov M. 1985.

At the opposite pole of Eurasia, in the same period, occurs a representation of this instrument in Spain (El Cingle cave at Gasilla)[1371]*. It is played by a masked personage* (a shaman?) holding it horizontally with two hands.

To conclude, the bow and arrow from Tărtăria is not a sign inventoried by the Danube script, and parallels with other ancient writings is unconvincing. It symbolizes a magic act, the dynamic moment in which the arrow is shot, information is transmitted, and enchainment is in action.

Fig. X.29. Mistresses of animals without head but with a musical bow on a Copper Age rock painting from Hodjikent (near Tashkent in Uzbekistan).

Fig. X.30. Musical bow on a Copper Age rock painting from El Cingle cave at Gasilla (Spain).

THE ABSTRACT ARROWS OF THE DANUBE SCRIPT

The abstract angle-like sign (the ∨, ∧, >, and < in a simple or multiplied variations) that on the tablet indicate two abstract flying arrows, deserves special attention for the scholarship, to underline its unique features such as its frequent occurrence and distinctive position on figurines and cultic vases. This sign originates deep in time from the Upper Paleolithic, and its historical importance is linked with religious signification generally with a feminine reference. In fact, the open-angle is an extremely simple and effective geometry. It is one of the oldest signs dating to the geometrical revolution occurring during the Upper Paleolithic, and from 5500 to 3500 BC, dominated the graphic expression of liturgical objects[1372]. The angle-shape is often identified as a vulva, or an incomplete vulva[1373].

On the roundish tablet from Tărtăria, the open-angle (**sign 10 in fig. VIIC.6b**) is present as ⩥ (DS 004.1)[1374]. It is a variant through duplication of the root-sign > in a horizontal linear sequence. The ⩥ registers twenty occurrences in the database of the Danube script, nearly double the specular sign, the ⩤ (DS 003.1). The ⩥ is distributed over nineteen inscriptions and eighteen objects. The highest recurrence of this chevron form in a single inscription is two times. The average presence per inscription is 1.05. The importance and frequency of the ⩥ necessitate deeper investigation of this sign and its occurrence within the Danube script.

Conversely to the ⩤, which is concentrated only in the Neolithic (in Serbia, Romania and Hungary), the ⩥ has a more articulated chronological distribution. If one does not consider data when the distinct period of the Neolithic or Copper Age is not specified, the Formative stage registers 5.9% of the cases (occurrences in Romania), the Accumulative stage 41.2% (in Romania and Serbia), the Blooming stage 29.4% (mainly in Bulgaria, but also in Romania and Serbia), and the Fall stage 23.5% (only in Ukraine).

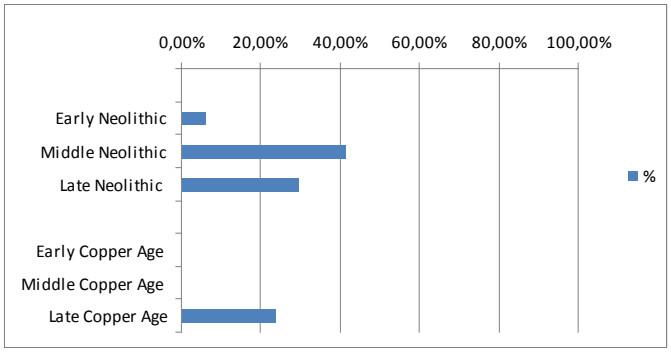
If the ⩤ is a typical sign of the Vinča culture, with its main frequency in the eponymous site, the ⩥ confirms the centrality of the Vinča settlement but registers a more widespread presence. In the Neolithic, it is present in the following cultures: Starčevo-Criș (Körös) IBC during the Early Neolithic;

[1371] Meshkeris Veronika 1996, p. 46, 64, pl. XIV.2.
[1372] Vasilescu V. 1992; Merlini M. 2004a.
[1373] Bahn P. G., Vertut J. 1997, p. 187.
[1374] This sign is listed neither in Winn S. 1981 and 2004, nor in Haarmann H. 1995, nor in Gh. Lazarovici's catalogue of signs and symbols. They all record only the main sign ⩔.

Vinča A, Vinča AB and Vinča B, Banat II, and Alföld I during the Developed–Middle Neolithic; and Vinča C, Karanovo IV–Kalojanovec, and Turdaș throughout the Late Neolithic. During the Middle Copper Age, it occurs in Trypillia B. The graphic displays the chronological incidence of the ≫, if one does not consider data when the distinct period of the Neolithic or Copper Age is not described.

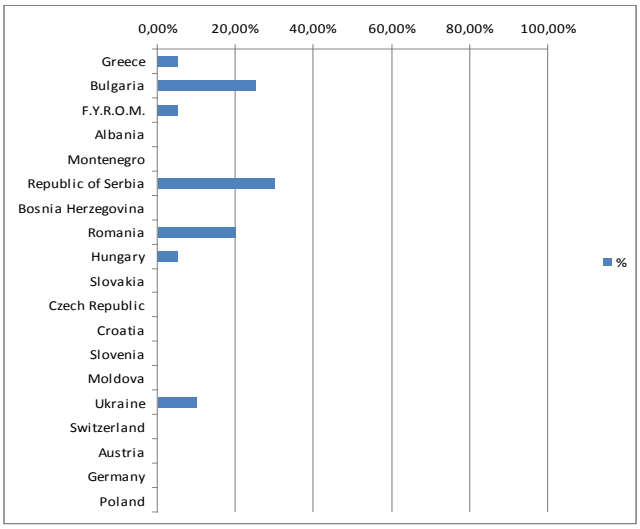
Chronological distribution of the sign DS 004.1		
Period	*Absol. value*	*%*
Neolithic not specified	3	15.00%
Early Neolithic	1	5.00%
Middle Neolithic	7	35.00%
Late Neolithic	5	25.00%
Copper Age not specified	0	0.00%
Early Copper Age	0	0.00%
Middle Copper Age	0	0.00%
Late Copper Age	4	20.00%
Total	20	

Chronological distribution of the sign DS 004.1
(excluding data when the distinct period is not specified)



Geographical distribution of the sign DS 004.1		
Country	*Absolut value*	*%*
Republic of Serbia	6	30.00%
Bulgaria	5	25.00%
Romania	4	20.00%
Ukraine	2	10.00%
F.Y.R.O.M.	1	5.00%
Greece	1	5.00%
Hungary	1	5.00%
Total	20	

Geographical distribution of the sign DS 004.1



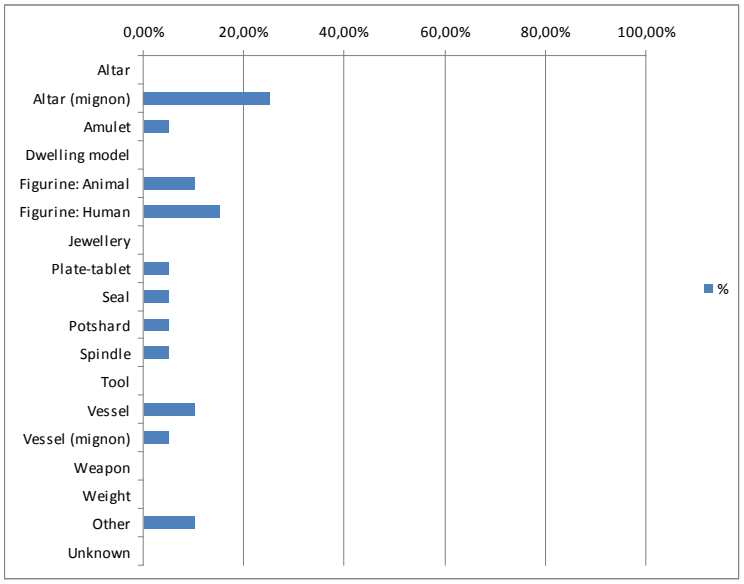
With reference to the geographical distribution of the ≫, the main contribution is from the Republic of Serbia, followed by Bulgaria, Romania, and Ukraine. At distance is the contribution from F.Y.R.O.M., Hungary and Greece. The ≫ is present in fourteen settlements. The site where it is most frequent is Vinča, in the Republic of Serbia (four presences, mainly in the Developed–Middle Neolithic). With two recurrences, we find Nova Zagora–*Hlebozavoda*, in Bulgaria (Late Neolithic), Perperikon in Bulgaria (Late Copper Age), and Čapaevka in Ukraine (Late Copper Age).

All the other settlements register a mono-presence of the ≫: Kormandin and Sebac (both Late Neolithic) in the Republic of Serbia; Lukanovo darvo (Middle Neolithic) in Bulgaria; Ocna Sibiului (Early Neolithic), Tărtăria (Middle Neolithic), Parța (Middle Neolithic), Turdaș (Late Neolithic) in Romania; Mezőkövesd-*Mocsolyàs* (Middle Neolithic) in Hungary; Stenče in F.Y.R.O.M.; and Dispilio (Middle Neolithic) in Greece.

The 𓂋 is incised over a wide range of artifacts. However, it is largely associated with mignon altars–offering tables distributed in the Early Neolithic and Developed–Middle Neolithic. They are followed by female figurines (primarily in the Late Neolithic but also in the Middle Neolithic). Then it is significantly present on animal statuettes (in the Late Neolithic), and vessels (principally in the Middle Copper Age). The 𓂋 appears also on amulets, plates–tablets, potshards, spindle-whorls, and miniature vessels.

Object type distribution of the sign DS 004.1		
Object type	*Absol. value*	*%*
Altar (mignon)	5	25.00%
Figurine: Human	3	15.00%
Figurine: Animal	2	10.00%
Vessel	2	10.00%
Other	2	10.00%
Amulet	1	5.00%
Plate-tablet	1	5.00%
Seal	1	5.00%
Potshard	1	5.00%
Spindle	1	5.00%
Vessel (mignon)	1	5.00%
Total	20	

Object type distribution of the sign DS 004.1



In order to better understand the presence of the 𓂋 at Tărtăria, we illustrate two significant occurrences of it as an element of texts from the Danube script. Among the aforementioned inscribed female statuettes, the 𓂋 has the central seat in a long inscription incised under the prominent belly of a Vinča C figurine recovered at Kormandin (Republic of Serbia)[1375]. From the drawing, one can detect at least six signs aligned along a horizontal row and inserted within a metope, as at Tărtăria, to make the reading easy and to emphasize the content of the message. The 𓂋 is followed by a stroke, possibly with a diacritical function, similar to the y on the other Transylvanian drilled tablet.

The 𓂋 is present twice as part of a long (although incomplete) sequence of seventeen signs occurring on a Trypillia B vase from Čapaevka (Ukraine)[1376]. At first glimpse, the signs aligned in a circle appear as mere decorations based on a geometrical freeze. They seem to have a symmetrical arrangement, although composing a complex pattern, with an X positioned as the barycenter. Nevertheless, if one carefully checks the chain of signs, one can find that they are not symmetrically positioned. The fifth signs starting from the X (V-motifs) are reversed: a > on the right and a < on the left, whereas, for example, the third signs are both a <[1377].

In brief, the sign 𓂋 engraved on the circular tablet cannot be directly interpreted as 'arrows' due to their position and orientation. It is an abstract sign aimed to express a meaning that escapes us. It is a sign of the Danube script that is more significant than the specular 𓂋, having a higher frequency in *DatDas*, a more articulated chronological distribution, a more equilibrate geographical circulation (even confirming the Vinča settlement as a barycenter), and a wider spread according to the typology of objects. The 𓂋 sign has a strong association with mignon altars–offering tables and female figurines that indicate its clustering in the magic-religious sphere. It is also a sign firmly established in the inventory of the Danube script as evidenced by the following comparison with the sign lists of the other ancient systems of writing.

[1375] Tasić N. 1973, p. 63.
[1376] Masson V. M. et al. 1982, fig. LXXXIII/22; Videiko M. 2004, p. 122.
[1377] Merlini M. 2009d, p. 666.

Fig. X.31. The ≫ has the central seat in a long inscription incised on a Vinča C figurine from Kormandin (Republic of Serbia). (After Daniela Bulgarelli © Prehistory Knowledge Project).

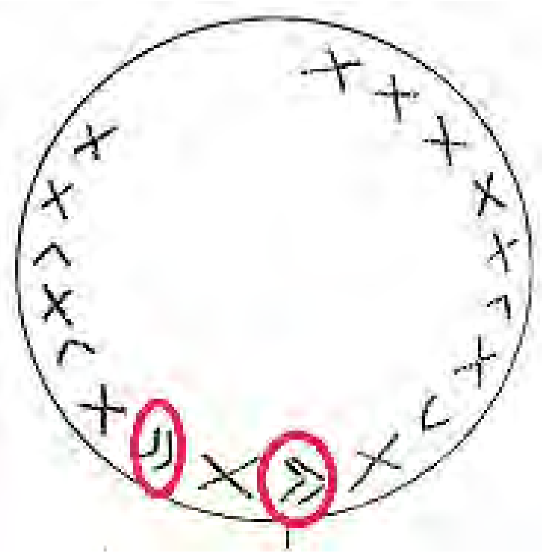


Fig. X.32. The ≫ highlighted on the sequence of signs occurring on a vase from Čapaevka (Ukraine). (Graphic elaboration by M. Merlini after M. Videiko 2004: p. 122).

The forced equalization of the sign ≫ with the Proto-Sumerian pictography ◁◁,≪ made by Badiny is not very convincing[1378]. It is present in the sign ATU 388, but the open-angle is single and a mirror image of the Transylvanian occurrence: <. Also the dared correspondences in Akkadic cuneiform with n. 471 in Labat system with the sound value MIN (meaning 'two'[1379]), or with Labat n. 68, sound value RU (meaning 'sprinkle' 'to dedicate', 'to fall', 'to throw down'), used in Sumerian ritual formulae standing for 'to make a libation'[1380], are unpersuasive. The arched symbol means 'road' in the Hieroglyphic Luwian[1381]. The sign ≫[1382] has the sound *pi* in the Cypriot syllabary[1383].

On the circular tablet from Tărtăria, the sign ≫ represents two arrows in abstract style pursuing the target. It might be indicated by the sign incised below, ‡, with an unfortunately obscure meaning.

SIGNIFICANT PRESENCE OF THE DOUBLE-BAR CROSS

The last sign on the lower left quadrant of the circular tablet (sign 11 in fig. VIIC.6b) is a cross with two horizontal bars (i.e., the Lorena cross). The ‡ is listed **as** DS 020.1a in the inventory of the signs of the Danube script[1384]. *DatDas* registers it as a rotated variant of the root-sign of abstract nature ╫ (DS 020.0a), comparable with the root-sign ├┤ (DS 020.0b), with variant ⌶ (DS 020.1b). The Lorena cross and assimilable signs register twenty-four occurrences in *DatDas*, distributed over settlements settlements as an element of complex inscriptions. The figure displays a concentrated recurrence in some literate settlements (four recurrences at Cífer-Pác, three at Turdaș, two at Vinča and Parța). Concerning the chronological distribution of this sign, it is present throughout the entire cycle of life of the Danube script, from the Formative stage down to the Eclipse stage, with maximum occurrence in the Blossoming stage.

In the Early Neolithic, the double-bar cross is present on the second register from the bottom of the already mentioned miniature globe from Lepenski Vir. In the Developed–Middle Neolithic, the pivotal role was played by the Vinča culture to which Tărtăria belongs. The sign appears on artifacts that

1378 Badiny F. J. 1966.
1379 Badiny F. J. 1966.
1380 Kolev R. 2008, p. 4.
1381 Hawkins D. 2000.
1382 It is the sign DS 001.1 according to the inventory of the Danube script.
1383 Chadwick J. 1990, p. 187, tab. 34.
1384 This sign is not present in Winn's 1981 inventory. Instead, S. Winn utilizes the sign ╫ listed as 41 and inserts it among the signs characterized by parallel lines modified by accessories (Winn S. 1981, p. 61). Conversely, the Lorena cross occurs in Winn's 2004 inventory where it is registered as sign DS 133 and is placed in the category of the abstract signs observed in various scripts. The double-bar cross is not present in Haarmann's repertory of 1995, which records only the sign ╫, OE 203, among the simple and complex abstract signs. It is code 126f in Gh. Lazarovici's catalogue of signs and symbols.

are icons of the Danube script, such as an anthropomorphic female torso from Suspka (next to Cuprite, Republic of Serbia), and a seal made of black stone from Yannitsa (northern Greece). It is significant that they are contemporary with the Tărtăria tablets and share similar semiotic mechanisms.

In the nineteen fifties, Milutin Garašanin found a Vinča B female figurine at Supska with two holes for suspension on the arms and decorative arched parallels over the shoulders. However, he did not notice the evident 'A','I','M', '𓏲', and 'Y' motifs positioned over a large triangle incised on the chest. This inscription was rediscovered in 2002 by Andrej Starović[1385].

The signs from an inscribed seal from northern Greece (ca. 5250–5000 BC) have the typical features of a system of writing. In particular, they are intentional, identifiable, highly stylized, elementary linear in shape, similar in size, and standardized according to a model and an inventory, and recurrent within the same inscription. Many signs show letter-like forms such as a 𓏲. Some of them are subjected to a technique that modifies their outlines through the application of diacritical marks as small strokes. In addition, on the Yannitsa seal, the signs are combined into ligatures and are aligned in precise sequences. The 'scribe' organized them along three registers tracing a series of horizontal guidelines along the length of the seal, writing the signs over them. However, he/she made an error incising the first line too high to contain the writing. Therefore, the rest had to be compressed onto the last line. The linear succession of the signs, the occurrence of registers, and the mistake made in organizing the sequences indicate that the signs were assembled in a functional way in order to carry a specific message and not according to an aesthetic design.

Fig. X.33. The double-bar cross spotlighted among 'A',' I', 'M', 'Y' signs aligned over a large triangle incised on a Vinča B female chest from Supska (Republic of Serbia). (After Daniela Bulgarelli © Prehistory Knowledge Project).

Fig. X.34. The 𓏲 highlighted on Middle Neolithic concave seal recovered at Yannitsa (Northern Greece) made of black stone, ca. 5250–5000 BC. (After Daniela Bulgarelli © Prehistory Knowledge Project).

The signs were deeply incised on the concave side of the seal, which therefore was used to impress precise sequences on curved surfaces such as wrists, arms, or sticks. Unfortunately, we do not know how long the written message was because two holes at the extremities of the seal indicate that only half of the entire object with text has been found. As evidenced by the two drilled tablets from Tărtăria, a sort of data archive could have been created by threading a number of perforated seals made of two interlocking parts by a string, into a bracelet or a necklace[1386]. According to the discoverer, P. Chrysostomou, the text should be read from top to bottom and from right to left[1387]. The complexity of the text, the difficulties of carving it on a hard-stone surface, and the possibility to wear the seal do not suggest a functional use within an administrative-accounting framework. It is more reasonable to assume that it was used as an amulet-archive or as a pintadera to record magic-religious formulas or a mythical story[1388]. The same function (to be talisman-records of sacred formulas implicating mythological events), was also fulfilled by the two perforated tablets from Tărtăria, as we will corroborate.

The Late Neolithic cultures that most frequently used the 𓏲 sign were Vinča C and Turdaș. Vinča C examples are from Jela–*Benska Bara*, Banjica (both in the Republic of Serbia), and Valač (Kosovo). From the Turdaș culture, there is evidence from the eponymous settlement. A double presence within inscriptions of the Banat III culture at Parța has to be mentioned. It occurs on a tablet[1389] and on a rim/body area of an unpublished potshard[1390]. On the tablet, the 𓏲 is an element of a complex text comprised

[1385] Starović A. 2004; Merlini M. 2005c; 2009d, p. 306, 547.
[1386] Merlini M. 2004a, p. 112; 2005b; 2005c.
[1387] Chrysostomou P. 2002, p. 489–498.
[1388] Merlini M. 2003; 2009d, p. 526.
[1389] Germann Manuscript, Analogii 12.
[1390] The inventory number is Par P255.

of at least ten signs divided into two reading areas. The inscription has a block format with a linear arrangement of the signs.

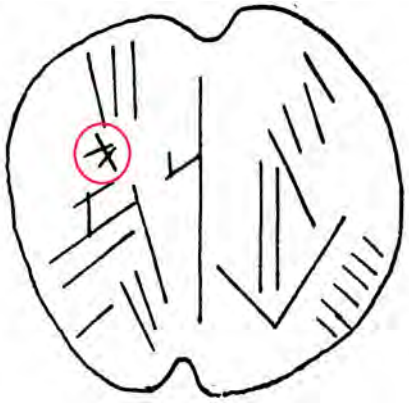


Fig. X.35. The Lorena cross spotlighted on a Banat III tablet from Parța (Romania). (Graphic elaboration by Merlini M. after Germann Manuscript, Analogii 12).

Fig. X.36. The ⧺ highlighted among a mass of signs on a Karanovo IV – Kalojanovec cultic plaque-tablet from Nova Zagora – Hlebozavoda (Bulgaria).

In the Bulgarian Karanovo IV–Kalojanovec culture, the ⧺ appears on a cultic plaque–tablet of elliptical section recovered at Nova Zagora–*Hlebozavoda* (III horizon)[1391]. On the front and back, it is deeply engraved by sequences of signs encrusted with white matter. On the slightly smoothed front, the cultic plaque-tablet assembles at least twelve signs in a block format. According to the discoverer, these signs have to be interpreted as pictograms or ideograms for preserving and transmitting information[1392]. In the Classical Dimini culture, the sign under investigation recurs on inscriptions incised on rotating spindle-whorls[1393].

Significant is the multiple presence of the double-bar cross on a Copper Age vase from Cífer–Pác (Slovakia)[1394]. Here five vertical sequences of signs are organized in order to express five different concepts, phrases or words[1395]. In the Early Copper Age, the sign under study is present on the chest of a Boian Giulești female figurine from Gradistea Ulmilor (Romania). The inscription is composed of seven signs arranged in a block format. In the Late Copper Age, the Lorena cross appears on a Cucuteni A-B potshard recovered at Lozna (Moldavia, Romania)[1396]. A semiotic analysis of signs and internal structuring of the inscription allows some pronouncements regarding the presence of elements of a system of writing.

Fig. X.37. The multiple presence of the Lorena cross on a Copper Age vessel from Cífer–Pác (Slovakia). (Graphic elaboration by Daniela Bulgarelli after T. Kolnik 1980, p. 55, fig. 1).

Fig. X.38. The ⧺ highlighted within a deeply incised inscription on a Boian Giulești female figurine from Grădiștea Ulmilor (Romania).

[1391] The artifact is held at the Nova Zagora History Museum; inventory number 5399.
[1392] Kancheva-Russeva Tatjana 1981, p. 62, fig. 3.2.
[1393] Gimbutas Marija 1989, p. 67, fig. 105.6.
[1394] Kolnik T. 1980, p. 55 fig. 1; Makkay J. 1990, tab. 22.
[1395] Merlini M. 2009d, p. 307.
[1396] Şadurschi P. 1983; Lazarovici Cornelia-Magda 2004; Teodor Silvia, Lazarovici Gh. 2006; Merlini M. 2009d, p. 668 ff.

As evidenced by our brief survey on the Lorena cross, it is very widespread throughout the Danube civilization as a key sign of the Danube script. With reference to the geographical distribution, it is present mainly in Romania and in the Republic of Serbia. However, it appears also in Kosovo, F.Y.R.O.M., Greece, Bulgaria, Slovakia, and Poland. Potshards are definitely the most frequently inscribed artifacts. They are followed by vessels and human figurines. Significant is the high presence on tablets-plates. The double-bar sign occurs on the Neolithic frescoes from Çatal Hüyük.

The ‡ does not find parallelism with the Proto-cuneiform pictogram ATU 295, [1397] = Jaritz #560[1398]. It is just the duplication of the sign ATU 223 = Jaritz #101, , which indicates a 'branch growing from a stem', and symbolizes 'grow (large), swell up, bud'. However, the ‡ is partially present at Jemdet Nasr as the 90 grades rotated ‡ (JN 47). Regularizing and standardizing the Proto-Sumerian pictograms, Zakar believes to have found the Transylvanian sequence also at Jemdet Nasr ( ), and at Knossos (in the form)[1399]. In Akkadian cuneiform, the double-bar sign has the Labat number 295 with phonetic value PA, KUN, meaning 'branch', 'club', 'scepter'[1400]. Denoting also someone holding these tokens of authority, it acquired the meaning of someone in power[1401]. However, some convergences are also with Labat number 467: a 'god', 'the hero'[1402].

The Transylvanian sign ‡ finds a complete graphic convergence with sign AB03 of the Cretan Linear A[1403], and with sign B03, sound *pa*, from Linear B[1404]. It matches the form with the sound *pa* in the Cypriot syllabary[1405]. Out of the ancient scripts we are comparing systematically, it finds correspondences in inscriptions from the Hurrian (Khurrite) civilization (in northern Mesopotamia from ca. 2300 BC to ca. 1000 BC), in Ugarit writing, and in Egyptian pre-dynastic letters. The sign from Tărtăria matches the letter , GY, of the runic script.

The analysis of the convergences of the ‡ from Tărtăria with early writing systems evidences a common thread from the Danube script to the Aegean writings. The occurrence within inscriptions of the Danube script documents its use on ceremonial objects of the Danube civilization, and its very rare presence on daily utilitarian articles confirms the magic-religious significance of this sign.

An altar for the sacrifice of fire

The first sign on the lower right quadrant of the circular tablet is a (sign 12 in fig. VIIC.6b). Being present only at Tărtăria, it is not recorded by *DatDas*[1406]. All the convergences recognized by Winn at Turdaș, Vinča, Jablanica, and Predionica[1407] are implausible, apart from a similar sign on the back of a figurine from Vinča[1408].

At Öcsöd – *Kováshalom* (Hungary), a related sign occurs on the womb of a figurine and symbolizes this organ[1409]. In this case, the sign hints at a fruitful female reproductive organ, the baby's place[1410]. In the Late Neolithic, the basic sign from which the was derived, the , is present in the Turdaș culture where it recurs twice, as well as on the already mentioned black stone cultic disk. In the Danube civilization, the is generally found in sign groups and is important only in groups. It occurs in inscriptions of the early Vinča period, possibly continuing throughout the Vinča sequence at Turdaș and Banjica[1411]. The was used as an isolated sign restricted to figurines (with evidence on stomach, as on a statuette from Predionica), spindle-whorls, and unusual objects[1412].

[1397] Falkenstein A. 1965, tab. 2, 3.
[1398] Jaritz K. 1967.
[1399] Zakar A. 1970, fig. 4.
[1400] Badiny F. J. 1966.
[1401] Kolev R. 2008, p. 3.
[1402] Kolev R. personal communication 2011.
[1403] Godart L., Oliver J.-P.1985.
[1404] Chadwick J. 1990, p. 158–9; Robinson A. 2002, p. 88.
[1405] Chadwick J. 1990, p. 187, tab. 34.
[1406] It is listed as sign 180 in Winn's 1981 inventory and is established among the pictograms. It is sign DS 185 in Winn's 2004 inventory, where it is inserted inside the category of ideographs/pictographs. It is registered as OE 56 in Haarmann's 1995 repertory, which records it among the highly stylized ideographic signs with possible naturalistic origin. In Gh. Lazarovici's catalogue of signs and symbols it is listed as Code 181.
[1407] Winn S. 1981, p. 190.
[1408] Winn S. 1981, p. 291, fig. 14.
[1409] Raczky P. 1987, p. 91, fig. 124.
[1410] See Gh. Lazarovici's comments regarding some pieces from Parța (Lazarovici Gh. 2004, tab. 3).
[1411] Winn S. 1981, p. 99. Winn registers the also within an inscription on a potshard from Rudnik, but it is actually a .
[1412] Winn S. 1981, p. 81.

Considering the two ideograms/pictograms occurring in the lower right quadrant of the tablet to be an asymmetric altar and a prayer person, Falkenstein and Makkay tried to find similarities in the most ancient Mesopotamian documents with ATU 185, , which however is a quite rare sign[1413]. Concerning the identification of the original object serving as a model to the sign, ideas are not very clear because it is defined as a 'pommel' by Thureau-Dangin and Jaritz, and a 'quiver', a 'hand' or 'torches' by Legrain[1414]. The postulated parallelism with the cuneiform sign for the Sumerian BUR (vessel) is implausible, because in this instance four lines start from an upward triangle.

The finds no obvious correspondences in Akkadian cuneiform. It is paralleled with Labat sign n. 353 by Badiny, with phonetic value ŠA, meaning 'face', 'care'[1415]. But it is the Labat sign n. 172, with sound NE and meaning 'fire', according to Kolev[1416]. As a representation of a fireplace, a similar symbol occurs on an Assyrian relief from the 9th century BC, or even older. The sign means 'throne' or 'table' in the inscriptions of the Hieroglyphic Luwian[1417]. The assumed convergence between the Transylvanian and the , A330 in Linear A, is unconvincing[1418]. In this Cretan writing, the correlated sign is the A318, [1419].

To summarize, even if the is more or less present in different repertories of ancient systems of writing, it is typical of the Danube civilization and finds the best correspondences within the Vinča and Turdaș cultures as elements of the symbolic code[1420]. It is not a sign of the Danube script. Its naturalistic rendering indicates it as an altar for fire sacrifice, with three columns that seem to designate three tongues of fire. In the present book, Gh. Lazarovici advances the interpretation and related archaeological evidence that this symbol represents an altar model, an altar for the worship of fire. Analogies with ancient rituals might support this interpretation. Hindu fire worship begins with an offering to the three tongues of fire that represent the Orient, the Occident and the central place, followed by an invocation to the divinities. In the Manuscripts from Qumran Cave *1*, 1Q29 1Q is the "Liturgy of the Three Tongues of Fire"[1421].

The holiness of fire was recognized since Neolithic Tărtăria where on this tablet it is indicated as the mediator of the spiritual world and carrier of human prayers to the sky by its flames which are like fiery wings. On the incised symbol, the three tongues of fire are higher than the central body of the altar. They are the central spiritual symbol, not the 'table'.

THE ORANTE-DANCER

The 'orante-dancer', (sign 13a and 13b in fig. VIIC.6b), incised on the right of the and on the edge of the quadrant, occurs only at Tărtăria. Therefore, it is not recorded by *DatDas*[1422].

Scholars trying to crisscross Mesopotamia and Tărtăria consider the 'orante' as consisting of two separate elementary signs composing a bi-sign text aligned in vertical, because the upper sign, , finds parallels in Uruk and Ur in the pictogram signifying the rising sun: ATU 194= ZATU 451, [1423]. In Akkadian, a convergence is with Labat number 381 with sound value PIR, UD meaning 'pine'[1424]. The has a partial graphic parallelism with the signs 162 or 167 of the Indus script[1425]. The same situation is in Linear B for the relatively rare signs and , mirror images of each other, that are still unidentified[1426]. If their graphic relationship indicates a phonetic value, it remains not validated. However, in all the mentioned instances the figure is rotated 90 grades. Besides, disc and crescent are in contact. In some of them, the circle is 'splatted' on the crescent to become a semicircle

1413 Falkenstein A. 1965, tab.2, 3.
1414 Makkay J. 1968, p. 277.
1415 Badiny F. J. 1966.
1416 Kolev R. 2008.
1417 Hawkins D. 2000.
1418 Haarmann H. 1995, p. fig. 99.
1419 Godart L., Oliver J.-P. 1985.
1420 Masson Emilia 1984.
1421 Strugnell J. 1990.
1422 It is listed as sign 186 in Winn S.'s 1981 inventory and is located among the pictograms. It is sign DS 197 in Winn's 2004 inventory, where it is inserted inside the category of the ideographs/pictographs. Haarmann's repertory of 1995 records it as sign OE 7 and addresses it to the pictographic/ideographic signs depicting human beings and parts of the body. It is coded 327 in Gh. Lazarovici's catalogue of signs and symbols.
1423 Falkenstein A. 1965, tab. 2, 3; Makkay J. 1968, tab. XLV, figs. 36–38.
1424 Badiny F. J. 1966.
1425 Parpola A. 1996, p. 167, tab. 11.1.
1426 Chadwick J. 1990, p. 158–9; Robinson A. 2002, p. 88; Arapopoulou A., Chritē A. 2007, p. 257, fig. 31.

or even an arch. The scribe separated the two elements intentionally at Tărtăria and rendered a vertical relationship between them in form of a . In conclusion, no sign from the early writings matches the Transylvanian symbol.

Concerning the lower sign, , Badiny's attempt to equalize it with the already mentioned Proto-cuneiform clepsydra sign with sound value AB meaning 'father' is inconsistent[1427]. A graphic parallelism with the Akkadian cuneiform is also unpersuasive according to Labat number 128[1428]. By regularizing and standardizing sign outlines and spatial arrangements, Zakar believes he has discovered good parallels between the Transylvanian sequence and a compatible series at Jemdet Nasr ( ) and at Knosso ( )[1429].The folklorist Lizette Kabay foresees two altars, which serve to honor Sun and Moon[1430]. Assuming a temple economy in Neolithic Transylvania similar to the Mesopotamian one, Hruška interprets the X shape as representing private property associated to another symbol indicating the raising sun or the sun itself. Alternatively, he suggests considering the sign as a daylong period[1431]. Its convergence with Hieroglyphic Luwian is significant: the sign ha, with the sound *hu*[1432].

According to S. Winn there is no reason to consider the upper part of the as a separate sign because the two signs "are placed extremely close together for no obvious or necessary reason, and at least they must represent some kind of combination or ligature. This would reduce the value of the parallel with Mesopotamia even further"[1433]. The 'praying' or 'dancing' person partially matches the Cretan hieroglyph 004 and the sign in Linear B that is still unidentified, being very infrequent[1434]. Even lower is the convergence with the Linear B signs ZA, , and RI, [1435]. Very far from any parallelism is the , sign 120 of the Indus script. Bennet listed a more significant (Bennet n. 19) that was not transcribed into the regular sign list due to a scarcity of evidence.

In order to underline how difficult and entrapping is the symbolism of the Tărtăria tablets and how a suitable interpretation should search for a resolution that works as a system, I submit two series of images that at the first sight seem to be conflicting. The first string accepts the splitting the sign into two parts, but shows how the compound comprised of a crescent and disk could express two different kinds of symbolism: the association between bull horns and sun, and the relationship between lunar crescent and sun. The second sequence of images assumes as correct the interpretation of the sign as a whole: a human or divine figure. And we will see where it is going to lead.

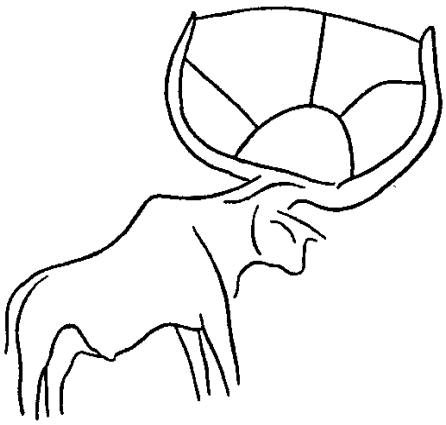


Fig. X.39. The sun rising between bull's horns from a North African rock picture. (After F. Behn 1962, pl. 51).

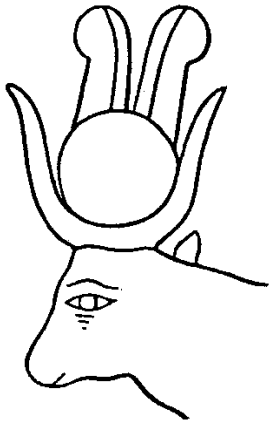
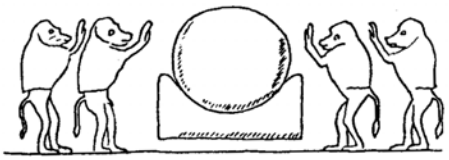


Fig. X.40. The sun lies between the horns of Apis in ancient Egypt. (After E. A. W. Budge 1934, p. 74).



A

B

Fig. X.41. A – Baboons worshipping a sun disc on a two-horned altar. (After A. Erman 1934, p. 20); B – Cultic 'crown' on an ancient Greek vase. (After A. Golan 2003, p. 132, fig. 124/10).

[1427] Badiny F. J. 1966.
[1428] Badiny F. J. 1966.
[1429] Zakar A. 1970, fig. 4.
[1430] Kabay Lizette 2000.
[1431] Hruška B. 1987.
[1432] Laroche E. 1960; Meriggi P. 1962.
[1433] Winn S. 1981, p. 192.
[1434] Chadwick J. 1990, p. 158–9; Robinson A. 2002, p. 88; Arapopoulou A., Chritē A. 2007, p. 257, fig. 31.
[1435] Chadwick J. 1990, p. 158–9; Dickinson O. 1994, p. 196; Robinson A. 2002, p. 88.

A sun disc between curving bull's horns is depicted on a rock picture from North Africa[1436]. The rays rising up makes A. Golan's interpretation of rain clouds unrealistic[1437]. The form and posture of the animal[1438] and the sun rising above the horizon indicate that the image possibly fixes the fatidic moment in which the sun rises at daybreak directly in the center of the bull's horns of Taurus[1439].

The image of the Sun disc between the celestial bull's horns had a strong symbolic meaning in ancient Egypt related to the holy bull Apis. The Goddess Isis often sports the horns of the celestial bull Apis with a sun disc between the horns. A similar cultic 'crown' composed of an arch sustained by bull's horns is solemnly held by a priestess in a depiction on an ancient Greek vase[1440]. A sun stylishly elaborated with two appendages is carried on the horns of a bovine in ancient Egypt[1441] and is worshipped by monkeys over a two-horned altar[1442].

The composite image of a disc or star-like form over a crescent to express the correlation between sun and lunar crescent is quite widespread in Eurasian prehistoric art. In several cultures, this symbol conveys the notion of the "heavenly couple", sun and moon, to reveal convergences in cultural stages and mentality in a very large region. One of the earliest depictions of the celestial pair in Neolithic of Southeastern Europe is incised on a statuette that is traditionally considered a mignon phallus-like artifact standing on an altar[1443]. The object was found at Ocna Sibiului – *Triguri* (Transylvania, Romania) in a "community dwelling" dedicated to a religious cult. It belongs to the Starčevo–Criș IB/C or Starčevo-Criș IIA culture[1444] dated to about 6000–5900 CAL BC, at the beginning of the ceramic Neolithic[1445]. It is the oldest artifact inscribed with signs of the Danube script. Both the phallus and its support are made of stone (micaceous gritstone)[1446]. According to the discoverer, the object is not a phallus at all, but a small and highly schematized conic statuette 4.5 cm in height and 2 cm at the bottom[1447]. The mignon figurine could be interpreted as a bearded man, carved in bas-relief, bound to a now unrecognizable woman. On its right side, the object possibly bears the representation of the sun and crescent moon highlighted in the related image. It symbolizes the cosmic couple identified with the divine *hieros gamos*. The quadrilateral base on which the statuette stood was found next to it. It is 4 cm long, 2 cm high and 2.5 cm wide. It bears an inscription composed of parallel horizontal lines, a lozenge, and 'N', 'X', 'V', '/\', '<', '>' motifs. The signs have a simple rectilinear shape and are organized along a linear sequence.

The statuette and altar form a 'cult assemblage' which represents a three-faced communicational device combining a plastic representational code, graphic symbolism, and a linear writing system in *statu nascenti*[1448] to express a myth connected to sun-moon intercourse. It is one of the oldest existing combinations of plastic illustration, symbols, and signs of linear writing. Iconic representation, symbolism and writing message are all elements of the same semiotic complex, here called the *Danube communication system*, each reflecting or partially defining the other two[1449].

One can presume that on the Ocna Sibiului 'cult assemblage' a single message could be transmitted through three channels and therefore that they are narrative, each applying its own code to similar mythical beliefs. The viewpoint reported on the Ocna Sibiului 'non-phallus' probably involve a mythical narration which acted in the early farming communities of the Danube basin to express the foundation for all the regional spiritual beliefs and which was common to other primitive agricultural societies. According to I. Paul, they might express the creation and re-creation of the world, which is closely

1436 Behn A. 1962, pl. 51.
1437 Golan A. 2003, p. 132.
1438 At Lascaux Cave (France) the body of a dominant bull incorporates the constellation Taurus.
1439 It happened last time on June 8, 2011.
1440 Golan A. 2003, p. 132, fig. 124/10.
1441 Budge E. A. W. 1934, p. 74.
1442 Erman A. 1934, p. 20.
1443 Gimbutas Marija 1991: 313, fig. 8–9.
1444 Lazarovici Gh. 2006; Lazarovici Gh., Gumă M. 2006.
1445 Luca S. A. 2006a, p. 25. Ciută M. 2001; 2002; 2003.
1446 Merlini M. 2004a; 2005b; 2009d, p. 206 ff., 499, 505 ff.
1447 Paul I. 1990, p. 28; 1995, p. 28–68; 2002; 2004 on-line. Idols discovered in the earliest stages of Starčevo–Criș (Körös) cultural complex often have a pillared/bell-shaped form, eyes indicated by engravings, nose and hands slightly emphasized, and hair or cap represented as a relief. Viz., for example, the Starčevo–Criș (Körös) IIIB conic figurine recovered at Trestiana (Moldavia, Romania) at Level I, dwelling C/L.3 (Popușoi Eugenia 1990–1992, p. 20; 1997: 114–115). See also the pillared/bell-shaped statuettes from Slavonski Brod (northern Croatia), around 5700–5300 BC (Minichreiter Kornelia 2002).
1448 For a semiotic analysis according to which the script seems to be "primitive" and half-baked at Ocna Sibiului – *Triguri,* see Merlini M. 2009d, p. 506 ff.
1449 Merlini M. 2005b.

connected with the conjunction of opposites expressed by the sacred union between a female and a male divinity (*hieros gamos*). This mythical drama consists of sexual union, birth, death, and re-birth; i.e., "the mystery of the life cycle"[1450]. The small statuette and its altar might be one of the earliest examples in the Danube area to combine iconography, magic-religious symbols, and signs of a linear writing for the narration of the cosmic mother-myth: the motion and re-creation of the universe involve a perpetual union between Sun and Moon. From this cosmic core-myth, all the other myths descend: magic fertility, re-birth, vitality of water, etc. The sacrificial act, so important at Tărtăria, expresses this narrative.

The star as an emblem of the divinized sun and the crescent of the moon divinity are present in Proto-Elamite Iran throughout the III millennium BC[1451]. Sun and moon, as the connection between femininity and masculinity in nature, characterize a Neolithic rock-wall picture from Karelia[1452]. It is also present in Sumer around 2200 BC[1453] and on Cretan monuments of the Minoan culture[1454]. Do these images express the idea of the crescent or half moon receiving the sun god in its womb?

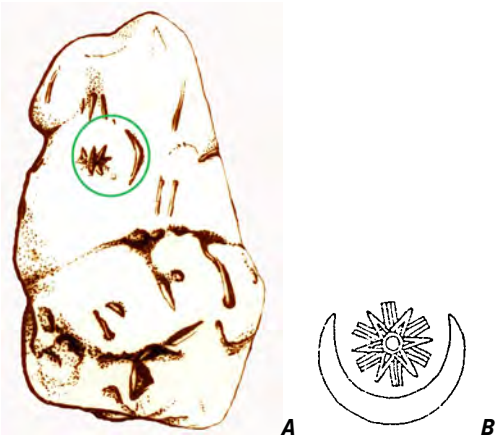


Fig. X.42. A – Sun and moon spotlighted on a Starčevo–Criș IB/C figurine from Ocna Sibiului – Triguri; B – A similar rendering of the celestial pair in the Proto-Elamite culture. (After A. Moortgat 1969, pl. 3).

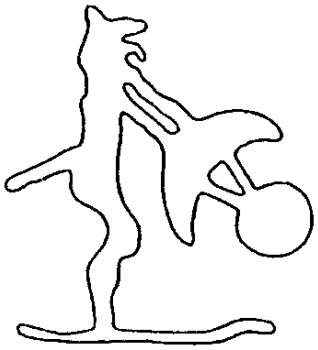


Fig. X.43. Sun and moon from the Neolithic art of Karelia. (After A. Golan 2003, p. 143, fig. 127/2).

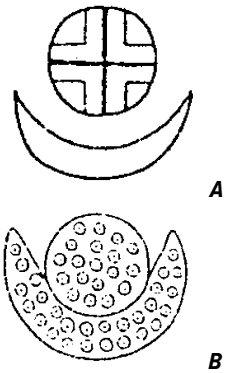


Fig. X.44. A – Sun and moon from Sumer. (After S. Piggott 1961, p. 79); B – Minoan culture. (After Ch. Zervos 1956, p. 307).

However, the moon in the sky suggests a horn, and the Neolithic tradition of Southeastern Europe likened the crescent moon distinctly to a bull horn. Marie König presented enough evidence that the horns of the bull as a mythic being were associated with two half-moons representing the waxing and waning phases[1455]. Though the crescent was imagined as two bull's horns, at the same time it was regarded as one thing, as one horn[1456]. At the end of the chain, the association is one: lunar crescent as bull horns and sun.

I present below some images that suggest the sign of the 'orante-dancer' from the circular tablet indicates a schematized portrait of a divine or human being with up-raised arms wearing a long robe. Having an altar for burning offerings on the left, the anthropomorphic figure can mean either the religious practitioner who is officiating the liturgy, or the divinity to which the rite is addressed. Golan strictly links this silhouette to the goddess due to the triangular shape of the body (sometimes outlined by dots that he interprets as seeds) that recalls the schematic sign standing for her vulva since Upper Paleolithic times[1457]. A significant trapezoidal/triangular form of the female divinity that evokes the 'base' of the figurine from Tărtăria occurs in Neolithic Hungary[1458].

The emblem of the Phoenician and Punic goddess Tanit, when crudely rendered, overlaps perfectly with that one from Tărtăria, even the sometimes depicted disjunction between the body and upper part. The lower element of the 'sign of Tanit' is composed of the triangular grapheme of the World Mount (in primitive form, it was a trapezium as at Tărtăria but in the course of time it was converted

[1450] Paul I. 1990; 2002; 2004 on-line.
[1451] Moortgat A. 1969, pl. 3.
[1452] Golan A. 2003, p. 143, fig. 127/2.
[1453] Piggott S. 1961, p. 79.
[1454] Zervos Ch. 1956 p. 307.
[1455] König Marie E. P. 1966, p. 141.
[1456] Golan A. 2003, p. 143.
[1457] Golan A. 2003 p. 214.
[1458] Fettich N. 1958, p. 123.

into an isosceles triangle). The upper element of the silhouette is composed of signs that indicate her celestial connections: sun over crescent moon-bull's horns. Since the circle occasionally has a human face sketched on it, the 'sign of Tanit' is generally accepted as representing the goddess, though some scholars interpret the circle as the full moon[1459]. The 'sign of Tanit' is often depicted on grave steles and on walls of tombs at Carthage, possibly being the mother deity of the city and its patron goddess[1460]. Her name was written *tnt*. [1461] Goddess of the heavens, she was often associated with the moon[1462]. She was mainly a provider of fertility, and such symbols abound around her (flowers, grain, pomegranates, palm trees, bunches of grapes, and leaves). As such, she was a divinity of good luck as documented by the widespread diffusion of pendant-amulets in the shape of her emblem.

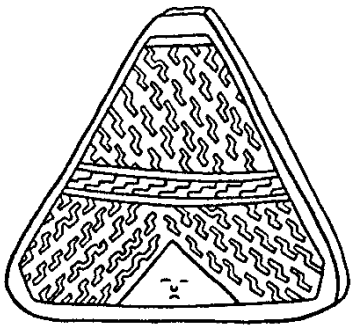


Fig. X.45. Triangular figure of a female divinity from Neolithic Hungary. (After N. Fettich 1958, p. 123).

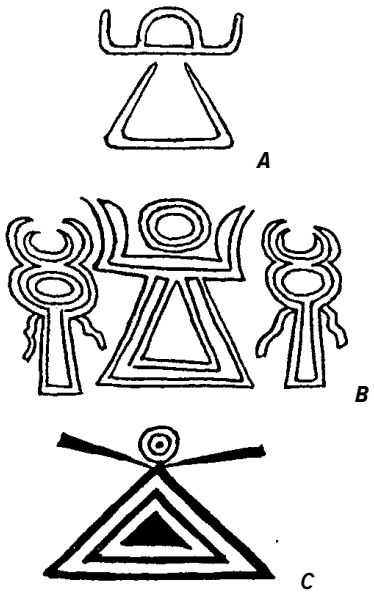


Fig. X.46. Representations of the 'sign of Tanit': A – At Carthage. (After E. M. Meyers 1997, p. 409); B – (After C. von Korvin-Krasinski 1966, pl. 4); C –Greece. (After C. von Korvin-Krasinski 1966, pl. 6).

Fig. X.47. Two representations of the goddess Tanit from the tophet at Carthage (II–I century BC).

The 'sign of Tanit' survived as Caelestis even after the Roman destruction of Carthage and its subjugation as a Roman colony[1463]. Two representations of the goddess Tanit occur on a limestone stela dedicated by Gaius Julius Arish, son of Adon-Baal (II–I century BC). It comes from the sacred *tophet* at Carthage. I present the upper part that vertically lists a sun disc surrounded by the goddess in schematized form (very similar to the 'orante' from Tărtăria) – the sun plus crescent moon over to a triangular body and below an anthropomorphized version of the same goddess[1464]. Some archaeologists prefer addressing the sacred motif of Tanit as the „bottle idol"[1465].

In short, a brief excursus in symbolic imagery indicates a high probability that the crude silhouette on the circular tablet from Tărtăria is a diagrammatic compound representation of a worshipped anthropomorphized divinity. We have no elements concerning the gender. The figure consists of two basic elements, upper part and lower part, 'readable' at different levels of meaning through interrelated explanation. They are, on the one side, trapezium/triangle base representing its body and, on the other side, upraised arms indicating crescent moon-bull's horns and head standing for the sun. They are its terrestrial body and its celestial body. They are the altar and its heavenly representation. They are the ritual action and the deity as a subject of worship. Finally, upper and lower elements are separated to symbolize the combination of Earth and Heaven, but also united by a twofold depiction of the arms.

[1459] Lipiński E. 1995, p. 206–215.
[1460] Ahlström G. W. 1986: 311; Aubet M. E. 2001, p. 343.
[1461] Lipiński E. 1995, p. 199.
[1462] Benko S. 2004, p. 23.
[1463] Benko S. 2004, p. 30–33.
[1464] Tubb J. N. 1998.
[1465] Dion P. 1994.

They are down-raised attached to the body, and upraised when connected with the head. At Tărtăria, it was employed as one of the unlimited possibilities for the expression in concrete form of the abstract concept of a cult directed to a divinity that joins the two generative principles of Earth and Sky.

Concluding on the lower right quadrant, the altar is represented on the left for the sacrifice of fire where offerings are presented and burnt. On the right, the divinity is indicated that couples Earth and Sky. The sacrifice is the magic/divine action that establishes a creative communication between human beings and super-natural beings. Milady Tărtăria, the agent of the ritual, is not presented. The worshipped divinity is depicted at the edge of the tablet. The centre of the scene is occupied by the image of the sacrifice, which is the main subject of this quadrant. When, during rituals, the upper register of the circular tablet was covered by the oblong tablet, the sacrifice of fire was complementary to the *libatio* depicted on the right side of the rectangular artifact.

The esoteric message on the disk-shaped tablet

A throne that is not a throne

We start now with an analysis of the esoteric (hidden) signs on the upper register of the circular tablet. They were covered when it was overlapped by the oblong drilled tablet. The inscribed compound was possibly worn or hung as sacred paraphernalia.

Next to the upper left edge of the discoid tablet, there is a sign similar to elements of a ladder or a limping chair (sign 2 in fig. VIIC.6b)[1466]. It is the sign of the Danube script (DS 032.1), as a complex diacritic variant of the root-sign  (DS 032.0). The occurs five times within inscriptions of the Danube script throughout the Accumulative stage of its life cycle up to the Stamina stage. It is clustered in the Developed–Middle Neolithic (Vinča A2) and Late Neolithic (Vinča C), with a presence also in the Early Copper Age (Gradešnica VIC Brenica culture that is datable to 4800–4700 CAL BC[1467]). In most instances, the is the first sign of an inscription. It introduces a message. It plays the same role in the esoteric message conveyed by the circular tablet from Tărtăria.

The area of presence of the , and its variant , was the core Balkan–Danube region from Transylvania (Tărtăria and Turdaș), to the Republic of Serbia (Jela – *Benska Bara*), Bulgaria (the archaeological site located 3 km. northeastward from the village of Borovan), and northern Greece (Dispilio). All these settlements represent vital nodes of the network of the early Southeastern European literacy. Turdaș was the second key center for sign production, surpassed only by Vinča. If the Turdaș culture did not participate in the genesis of the Danube script, it played a leading role in its blossoming and spread[1468]. In the Late Neolithic, the hub of the Danube script moved from central Serbia to Transylvania. Turdaș accounted for 22.2% of the totality of signs, and elaborated the innovation (including a refined numerical system). It also employed literacy over a wide area of radiance connecting trade routes and economic-technological development along the Danube River and its tributaries. In the same period, the settlement of Vinča was subjected to an evident crisis and its sign production felt to 7.9%.

Jela – *Benska Bara* and Borovan were sites of regional importance in sign production. Jela – *Benska Bara* was a pivotal settlement for its territory of radiance throughout the Blooming stage of the Danube script. Borovan was a vital literate settlement of the subsequent Stamina stage, massively clustering the inscriptions on human female figurines. Dispilio was among the settlements of micro-regional relevance with all the inscriptions occurring in the Accumulative stage of the script. Medvednjak yielded the on an anthropomorphic figurine. It is incised with symbolic value on the left side of the head[1469]. The variant is clustered in the Late Neolithic. It occurs on a potshard from Jela – *Benska Bara* where it is associated in a linear horizontal sequence with other two signs made of lines modified by accessories:  and . At Iclod (Romania), it is incised on a Zau III fragment of pottery. Even in this case it is followed by a . The other signs detectable from the inscription are two Vs. Expanding upon the subject

[1466] It is listed as a variant of the sign 60, , in Winn's 1981 inventory. The related classification system inserts it among the repeated lines modified by accessories. According to S. Winn's survey, the sign is present throughout the Vinča sequence B-D, both in sign groups and as a single sign (Winn S. 1981, p. 104). When isolated, it is found on all designated areas of pottery, p. rim/body, side near base, and base (Winn S. 1981, p. 69, fig. 17). The proper sign is recorded DS 160 in the inventory established by Winn in 2004. Here it is placed among the "H or Ladder signs/symbols". The proper sign is not recorded in H. Haarmann's repertory 1995, which however evidences the as OE 201 and inserts it among the simple and complex abstract signs. The is coded 150h in Gh. Lazarovici's catalogue of signs and symbols.

[1467] Merlini M. 2009d, p. 467.

[1468] Merlini M. 2009d, p. 488.

[1469] Winn S. 1990, p. 268, fig. 12.2.o.

of the artifacts bearing the , it is present on tablets, potshards (restricted near the base area of vessels), and female figurines.

The is very frequent and well known, with an assortment of variants, in several inventories of ancient systems of writing. The Mesopotamian examples highlight an implausible correspondence between this Transylvanian sign and the pictogram from Uruk ATU 260 [1470] or Jemdet Nasr[1471]. Badiny forced the supposed similarities selecting the Proto-Sumerian pictogram [1472]. Nonetheless, any correspondence in shape is remote[1473]. These scholars find equivalence only by maintaining that the Tărtăria sign is damaged in the lower left segments; they reconstruct it arbitrarily in an outline resembling the Proto-Sumerian counterpart.

Correspondences in Akkadian cuneiform are not very clear. It is Labat number 436 according to Badiny with sound TUD, DUR meaning 'settlement foundations'[1474]. However, it is Labat number 99 with meaning 'Lord', 'God' with a phonetic value EN according to Kolev[1475].

The sign resembling a tri-rung lame ladder or a limping chair occurs also in Semitic scripts, in particular in the Phoenician alphabet where a similar sign represents the letter *heth* (phonetic value *h*), . Subsequently, it became the Latin H. The occurs also in other ancient Asiatic scripts, as well as in the East Orient systems of writing. In particular, there is a complete graphic convergence with the sign 53 of the Indus script[1476]. Graphic parallelism is partial with the logogram of the Hieroglyphic Luwian that is one of the shapes indicating a 'throne'[1477].

The Transylvanian sign finds an incomplete correspondence with the sign AB55, , of the Cretan Linear A[1478], and a better one with the Linear B sign [1479]. It is reputed to be an 'optional' sign with probable sound *pa3* that occurs in alternative spellings of the same word[1480]. This Transylvanian scalariform corresponds in part to the letter Z, , of the Székely-Magyar Runic Script.

Several scholars interpret the incised on the Tărtăria tablet to be a terrestrial or celestial chair or throne[1481]. However it is a quite limping seat with the absence of a leg. Having in mind a temple economy similar to the Mesopotamian one, Hruška speculated over the meaning of this scalariform as an agricultural field positioned next to a sign that he admits to not understand[1482].

It seems to me that the explanation of the sign as a 'throne' or a 'field' is a typical case of 'pictographic fallacy'[1483]. If one believes that the Danube script is mainly pictographic and, having searched for stylized pictographic elements also in signs which actually are abstract, one naturally finds them. Then – under the influence of the determinatives found in Egyptian hieroglyphs (such as the shepherd's crook meaning 'ruler' in the cartouche of Tutankhamen) or in other hieroglyphic scripts – one proceeds to treat the presumed pictograms as referring only to the objects they are supposed to depict, resulting in interpreting iconic representations and failing to read abstract signs[1484]. The pictographic fallacy is generally coupled with another misconception that considers the first phase in the development of literacy as a pictographic or ideographic one[1485]. On the other side, it is possible that the present author is affected by the opposite failure: the 'abstract fallacy'. I amend this propensity at the end of this chapter when dealing with the relationship between the signs on the Tărtăria tablets and the Danube script.

In any case, to my thinking it will be productive to explore the possible abstract meanings of the as the opening that introduces the esoteric inscription. Brief examples from ancient scripts can be useful for the meaning of the combination of signs on the upper left quadrant of the circular tablet from Tărtăria.

[1470] Falkenstein A. 1965
[1471] Makkay J. 1969, p. 15.
[1472] Badiny F. J. 1966.
[1473] Winn S. 1981, p. 190, tab. VI.
[1474] Badiny F. J. 1966.
[1475] Kolev R. 2008.
[1476] Parpola A. 1996, p. 167, tab. 11.1.
[1477] Hawkins D. 2000.
[1478] Godart L., Oliver J.-P. 1985.
[1479] Chadwick J. 1990, p. 158–9; Robinson A. 2002, p. 88.
[1480] Arapopoulou A., Chritē A. 2007, p. 256, fig. 30.
[1481] See Lazarovici Gh. and Cornelia-Magda Lazarovici in the present book.
[1482] Hruška B. 1987.
[1483] Robinson A. 2002.
[1484] Merlini M. 2009d, p. 360, 158.
[1485] Merlini M. 2004c.

In ancient Egypt, the ankh sign was an attribute shared by the entire pantheon of gods because it was necessary to the nature of every deity for the possession of life. The scribes positioned the ankh at the beginning of inscriptions and before the names of gods and kings to underline reverence. In the Egyptian Hieroglyphic of the earlier periods, it normally rendered 'Long life'. Later, it was taken as ornamental and left untranslated[1486]. Marshall noted that many Indus inscriptions on seals from Mohenjo-Daro begin with the same sign, which might possibly be an invocation. On the other hand, many inscriptions terminate in the same sign, if they are to be read from left to right. The scholar established the list of the 'beginning' signs and the group of 'ending' signs[1487]. In Indian epigraphy, it was customary from earliest times to place various auspicious signs at the inception of the inscriptions, sometimes also at the end or even in the middle[1488]. Having propitious power, the words *siddham* and *svasti* are commonly found at the beginning of inscriptions[1489]. The symbol of *triratna* or 'Three Jewels' occurs at the beginning of texts at early Buddhist sites in the Deccan and on a large number of monuments[1490]. In Mayan calendrics, the ISIG (Initial Series Introductory Glyph) has been so named, when it is present, because it always stands at the inception of inscriptions. The ISIG is often an oversized glyph occupying two or more glyph blocks to announce that the date is following it[1491]. *IMP* (*erator*) was always incised at the beginning of inscriptions on Roman coins. It was replaced under the First Tetrarchy, in the early years of the 4th century AD, by *DN* (*Dominus Noster*, 'Our Lord').

Abstract concept of the Moon

The second sign on the upper left quadrant is a rounded D-shape with a tail, (sign 2 in fig. VIIC.6b). In the Danube script, it is a diacritical variant of the sign D (DS 033.0). In the Danube civilization, its occurrence is restricted to Tărtăria, and it is not present in other ancient scripts. Both the Danube script and others record only the simple D within the sign lists. It is registered as DS 033.0 in *DatDas*[1492]. This sign has five occurrences in the corpus of the inscriptions of the Danube script. Three of them are clustered on this tablet according to their variants.

The presence of the D within the Danube script is signaled from the Accumulative stage, to the Blooming stage, and to the Fall stage. In all these instances, Tărtăria apart, it occurs on female figurines. In the Late Neolithic Vinča C culture, the D is engraved on the forehead of a statuette discovered at Medvednjak (Republic of Serbia)[1493]. Due to positioning, Winn considers this sign as "symbolic"[1494]. In the coeval Sitagroi IIIA culture, it is present on a fragmented female torso found in the eponymous settlement[1495]. The 'D' is incised on its left shoulder and is paralleled by a ')' on the right. The statuette is made of black baked clay and has head, arms, and base broken off. It belongs to a typology characterized by inscriptions filled with white paint where signs of the Danube script, such as the D, have the same abstract, linear, and geometric outline of some decorative motifs. Sitagroi IIIA is datable to 4950–4875 BC[1496]. In the Middle Copper Age, the D appears on the back of a female statuette from Ovcharovo[1497]. Here the sign under investigation is connected by a ligature with a — and a  . The figurine belongs to the Karanovo VI–Gumelnița B–Kodžadermen culture that is datable ca. 4500–4100 CAL BC[1498]. The D occurs both in sign groups and as an isolated sign. As single sign, it appears restrictedly on figurines, spindle-whorls, and unusual objects[1499].

In Proto-Sumerian script, one finds the sign ATU 709:  . It is the numerical signs N8 from Uruk according to Nissen H. J., Damerow P. and Englund R. K.[1500]. Badiny forced a supposed correspondence in

[1486] Botterweck G. J. et al. 1974, p. 325.
[1487] Marshall J. H. 1996, p. 381, 416.
[1488] Salomon R. 1998, p. 67.
[1489] Sircar D. C. 1996, p. 5.
[1490] Ray H. P. 2003, p. 230, n. 10.
[1491] Harris J. F., Stearns S. K. 1997, p. 14.
[1492] The D is listed as sign 176 in Winn's 1981 inventory that locates it among the pictograms. The sign is not registered in Winn's 2004 inventory. It is recorded as OE 67 in Haarmann's repertory of 1995, where it is inserted among the highly stylized ideographic signs with possible naturalistic origin. The D is code 113a2 in Gh. Lazarovici's catalogue of signs and symbols.
[1493] Winn S. 1981, p. 149, fig. 6.
[1494] Winn S. 1981, p. 81.
[1495] Gimbutas Marija 1974/1982, p. 116, fig. 76; 1986, p. 240, 241, fig. 9.31, 294; Merlini M. 2009d, p. 222, fig. 5.77.
[1496] Merlini M. 2009d, p. 468.
[1497] Todorova Henrieta et al. 1983, tab. 91/8.
[1498] Merlini M. 2009d, p. 467.
[1499] Winn S. 1981, p. 81, fig. 24.
[1500] Nissen J. H. et al. 1993, p. 26.

Proto-Sumerian with a tablet from Jamdet Nasr[1501]. Some Mesopotamian clay tablets that were possibly accounting lists induced the mathematician György Mandics to explain a similar sign as a numeral[1502]. Comparing 'pictograms' that he has arranged in a constant and definite shape and patterns, A. Zakar states he has discovered parallels between the Transylvanian sequence and a more or less comparable series on a Sumerian tablet yielded by Jemdet Nasr: [1503].

In Akkadian cuneiform, the D is the Labat number 480 with sound DIS, meaning 'praised one'[1504]. This sign occurs also on a disk-fragment from Tepe Yahya (Iran) which has been dated to ca. 3000 BC. The Transylvanian D has a graphic convergence with the sign 181 of the Indus script[1505]. A sign occurs in Cretan Linear A, sign A709[1506]. The D shape corresponds to the NY letter of the Székely-Magyar Runic Script.

At Tărtăria, the tail on the D was incised intentionally. We have to deduce that the 'scribe' applied this small auxiliary marker to the root-sign in order to produce a variation to its conceptual meaning or to differentiate some phonetic units of the spoken language. Unfortunately, we are blind concerning the denotation of the D sign and its sound value. However, the Transylvanian D is the same as the sign of the moon on the Chinese divination bones. Is the rounded D-shape with a tail representing the abstract concept of the Moon (the divinity of the Moon?)

Cryptic message on the upper right quadrant

As already mentioned in the previous chapter, on the upper right quadrant of the circular tablet, a ligature between the incised on the higher register and the biggest D on the lower register is nonexistent, although common in literature[1507]. This misunderstanding affects semiotic research, not only of the scholars in pursuit of graphic parallels into the Vinča system of signs, but also of those addicted to the Mesopotamian gate. For example, F. J. Badiny dares a hazardous attempt to equalize the supposed Transylvanian 'ligature' to the sign T.M. 329 in the Labat system (even forcing the outlines because in the Near East the lower sign is a triangle and not a D) with sound SAL-AS, meaning 'charming woman', but also 'witch'[1508].

The sign (sign 4 in fig. VIIC.6b), comprised of a central horizontal line with a series of segments extending from both sides of it at 90° angles, is present only at Tărtăria within a possible script framework. Therefore, it is assimilated by *DatDas* to the four-branched sign DS 020.3[1509]. The is recorded by the inventory of the Danube script as a complex diacritic variant of the root-sign DS 020.0a: . The sign representing the multi-armed line is present restrictedly on artifacts from the Accumulative and the Blossoming stages of the Danube script. In the Late Neolithic, it occurs at least three times on potshards from Turdaș and is present on pottery from Jela – *Benska Bara*.

The four-armed line occurs both in grouping, and as an isolated sign throughout the Vinča sequence B-D. Examining the sign groups, Winn noticed the association between the (seven-armed line) and the on this Tărtăria tablet, although the signs are not contiguous. He also observed the repetition of the same sign group on the body of a pot from Turdaș[1510]. A similar correlation has to be signaled in other cases. The (DS 020.2) is connected to a on a human figurine from Turdaș[1511]. The is associated with a and a on a Vinča C vessel fragment from Jela – *Benska Bara*[1512]. In all the investigated instances, the format of the inscription is along a horizontal line, and even the sequence of signs (orientation) is aligned horizontally. These inscriptions seem to express numerical notations through the counting of

[1501] Badiny F. J. 1966.
[1502] Friedrich K. 1966.
[1503] Zakar A. 1970, fig. 4.
[1504] Badiny F. J. 1966.
[1505] Parpola A. 1996, p. 167, tab. 11.1.
[1506] Godart L., Oliver J.-P. 1985.
[1507] Vlassa N. 1963; Winn S. 1981, p. 36, tab. I, p. 190, tab. VI.
[1508] Badiny F. J. 1966.
[1509] According to the four-branched version, it is listed in Winn's 1981 inventory as sign 27, and is located among the repeated lines modified by accessories. The same version is present as sign DS 134 in Winn's 2004 inventory that classifies it among the abstract signs observed in various scripts. The same sign is listed as OE 194 in Haarmann's repertory of 1995, which records it among the simple and complex abstract signs. It is code 164a1 in Lazarovici's catalogue of signs and symbols.
[1510] Winn S. 1981, p. 278, fig. 106. Winn actually regularized the sign as that he listed as 41. Roska M. 1941, pl. CXI, 14; Makkay J. 1969, p. A8, 7.
[1511] Illustration in Winn S. 1981, p. 270, fig. 23; Makkay J. 1969, A18, 18.
[1512] Illustration in Trbuhović V., Vasiljević M. 1983, tab. VIII, 6.

parallel notches. According to other authors, the pectiniform sign often represents 'rain'. Having in mind for Transylvania a temple economy similar to the Mesopotamian one, Hruška proposes to interpret the comb-shape as a fence with numerical signs under it[1513]. Our interpretation of this sign (see below) corroborates the first explanation. As a single sign, the presence of the is restricted to the rim/body area and base of vessels[1514].

A sign similar to the DS 020.3, but with six arms and in a standing position, can be found in Proto-Sumerian pictography as ATU 235 [1515], as well as on a tablet from Jamdet Nasr. Falkenstein does not distinguish different signs according to the number of arms, and in his sign list the five-armed line is absent. This fact precludes any graphic parallelism. In Akkadian cuneiform, some scholars see faint graphic parallels with Labat n. 72, ESH (SIN), indicating the number 30, possibly the 30 days in a lunar month[1516]. The Transylvanian pectiniform has a partial graphic convergence with the sign 108 of the Indus script, where it has six arms and is in a standing position[1517]. It is also findable in the proto-writing system developed by the Elamites of southern Iran only a short time after the proto-cuneiform and was influenced by it in the inscription concerning the coronation of the Egyptian pharaoh Hor Den (Udimu, Usaphais). The is the letter *samekh* (phonetic value *s*) in the Phoenician alphabet. The associated Semitic expression is 'fulcrum'. The four-armed pectiniform is present in the Porto Badisco cave (Italy)[1518]. In the megalithic sites, it is incised at Loughcrew (Ireland)[1519].

In conclusion, if the comb-like sign from Tărtăria finds some parallels in the Mesopotamian pictography and in other ancient scripts, the best semiotic correspondences are from other settlements in Transylvania and in Serbia of the subsequent Neolithic Vinča C and Turdaș cultures of the Danube civilization where it is a component of a numeric system.

On the lower register of the upper right quadrant of the circular tablet, the proper sequence of signs, in accordance with the intention of the 'scribe', is: – D – O – [1520]. These are respectively the signs 5, 6, 7, 8 in fig. VIIC.6b. I recognize the sequence of the signs as the moon phases starting from the First Quarter of the Moon', as I analyze below. One has to deal not with the naturalistic rendering of the moon shape as viewed at different times of the month, but with the symbolism of the Moon according to an enigmatic and secret writing composed of crypto-signs understood restrictedly within a small group of initiates. A parallel with similar symbolic circumstances in an Elam depiction (III millennium BC) can be meaningful: new/black moon is illustrated as an X and full moon is an II[1521].

Fig. X.48. The symbolically rendered moon phases in Elam (III millennium BC). (After E. E. Herzfeld 1941, p. 73).

The crescent moon is visible in the shape of a celestial D[1522]. The variant is not recorded in the inventory of the signs of the Danube script. It is very similar to the shape individuated by Gh. Lazarovici with code 238f, meaning 'first quarter of the moon'. The same sign was utilized to render the first crescent in a lunar cycle engraved on a stone around the second part of IV millennium BC at Knowth (Boyne Valley, Ireland)[1523]. The graphic concept is similar to that at the base of the ancient form of the Chinese character Yue4, meaning 'moon'. In the beginning, the pictograph was a new moon hanging in the sky. Gradually, a vertical stroke was added inside. I also assume the as a symbol for the 'first quarter of the moon'.

The finds partial graphic convergence with the sign 187 of the Indus script: [1524] and in the ATU 528 from the proto-cuneiform: .

[1513] Hruška B. 1987.
[1514] Winn S. 1981, p. 70, fig. 18.
[1515] Falkenstein A. 1965, tab. 2, 3.
[1516] Kolev R., personal communication 2011.
[1517] Parpola A. 1996, p. 167, tab. 11.1.
[1518] Graziosi P. 1980, tab. XXV 3.
[1519] Breuil H. 1934.
[1520] See the technical discussion in the previous chapter.
[1521] Herzfeld E. E. 1941, p. 73.
[1522] See Lazarovici Gh., Cornelia-Magda Lazarovici in the present book.
[1523] Gimbutas Marija 1989, p. 286, fig. 449.
[1524] Parpola A. 1996, p. 167, tab. 11.1.

The aforementioned sign D, which follows the D, is registered in the inventory of the Danube script as DS 033.0, as previously analyzed. The D shape incised on the tablet from Tărtăria has convergences in the sign lists of many ancient systems of writing. We have mentioned some of them when discussing the D on the left quadrant. We have here to add that proto-cuneiform presents two kinds of D. We have already mentioned the rounded form D (ATU 709) when discussing this sign with a tail from the upper left quadrant. The sharp D incised on the upper right quadrant finds graphic parallels with ATU 527. As substantiated in the next chapter, if the D is a lunar symbol in several early systems of writing and in rock art, at Tărtăria it stands for the Full Moon as the best suitable moment for human fecundation.

At Tărtăria, the O geometry is shaped exactly how one would think. The sign O (DS 071.0) has six correspondences in *DatDas*[1525] that classifies it among the pictographic/ideographic signs of the Danube script connected to natural objects, elements of natural surroundings or phenomena.

As isolated sign, the circle is characteristic of the early phase of the Vinča culture to which the Tărtăria tablets belong[1526]. As an element of Danube inscriptions, the round form is particularly present on anthropomorphic female figurines from the Copper Age. For example, it occurs twice on the front of a Gradešnica–Brenica statuette from Slatino, horizon 3 (Bulgaria)[1527].

The sign DS 071.0 can be found among the Sumerian and Elamite numerals. In Mesopotamian pictography, it is sign ATU 753[1528]. The Sumerian sign (code Jaritz #750) represents a "flat or slightly depressed circumscribed area, palm"[1529]. In the numerical system, a small o means 10, a big O stands for 3600[1530]. In Akkadian cuneiform, the O has Labat number 396 with sound SAR, meaning 'completeness', 'totality', 'fullness', 'integrity'[1531]. However, it finds also some convergences Labat number 472, meaning 'seed'[1532]. Regularizing and standardizing the outline and spatial arrangement of the signs, Zakar claims to have recovered the Transylvanian sequence ##### DD OO also at Jemdet Nasr as (##### D O), and at Knossos, even if in a less structured form ( )[1533].

The Transylvanian O evokes the Egyptian determinative for pupil (*djfdj*) abbreviation; *Heqat* 'measure of corn, grain' (D12 in Gardiner's list for the parts of the human body). It has a graphic parallelism with the sign 341 of the Indus script[1534]. In the Proto-Elamite, based on a decimal system of numerals, the circle indicates the number 10. This sign finds strict parallelism in shape with the sign A309a of the Linear A[1535]. In Cretan Hieroglyphic it is sign 073[1536]. The number system of Linear B is fundamentally base–10. Here, the circle marks the numeral 100[1537]. The O is the letter *ayin* (phonetic value ʕ) in the Phoenician alphabet. The associated Semitic expression is ''eye'.

In rock art, the circle is sometimes identified as being a vulva, or an incomplete vulva[1538]. As I corroborate below, analyzing the occurrence of the O as an element of two-sign inscriptions positioned on buttocks of female figurines from Măriuța and Bazovets, at Tărtăria the O indicate the Last Lunar Crescent after the fecundation that occurred during the Full Moon.

The incomplete circle, C, is not present within the inventory of the Danube script as well as in the early systems of writing. A faint reference is in Akkadian cuneiform with the sign Labat n. 69, meaning 'power', 'principle', 'first' ('main') [1539]. In megalithic rock art, it stands for 'New/Black Moon' on a lunar cycle engraved on a 3000 BC orthostat from a tomb at Les Pierres Plates (Locmariaquer, Bretagne)[1540].

[1525] The circle is listed as sign 135 in Winn's 1981 inventory. Due to the geometrical and not semiotic approach, the scholar assesses it among the signs derived from curved lines (Winn S. 1981, p. 63). It is sign DS 167 in Winn's 2004 inventory that includes it among the ideographs/pictographs. The O is registered OE 185 in Haarmann's 1995 repertory that addresses it to the simple and complex abstract signs. It is coded 182 in Gh. Lazarovici's catalogue of signs and symbols.

[1526] Winn S. 1981, p. 101, fig. 25.

[1527] Čohađiev St. 2006, p. 71; Merlini M. 2009d, p. 271.

[1528] Falkenstein A. 1965, tab.2, 3.

[1529] Jaritz K. 1967.

[1530] Walker C. B. F. 1990.

[1531] Badiny F. J. 1966.

[1532] Kolev R., personal communication 2011.

[1533] Zakar A. 1970, fig. 4.

[1534] Parpola A. 1996, p. 167, tab. 11.1.

[1535] Godart L., Oliver J.-P. 1985.

[1536] Olivier J.-P., Godart L. 1996.

[1537] Merlini M. 2008d, p. 266.

[1538] Bahn P. G., Vertut J. 1997, p. 187.

[1539] Kolev R., personal communication 2011.

[1540] Gimbutas Marija 1989, p. 284, fig. 446.1.

In conclusion, the sequence D – D – O – ○ incised on the lower register of the upper right quadrant of the Tărtăria tablet seems to indicate the moon according to the following phases: First Quarter Moon, Full Moon, Last Quarter Moon, and New/Black Moon. As on other prehistoric lunar cycles, the phase is not only individuated by shape, but by dimensional decrement of the symbol from Full Moon to New/Black Moon. It is, for example, the instance of a Cucuteni A4–Trypillia B lunar cycle datable to 4100–4000 CAL BC[1541]. It is incised on the base of a bowl from Nezvisko, along the upper course of Dniester River[1542]. The New/Black Moon is rendered as a small circle. The same graphic mechanism was utilized on another orthostat from the tomb at Les Pierres Plates[1543]. Here the New/Black Moon is rendered as a small incomplete circle with an open orifice in the lower part. At Tărtăria, the size of the signs is ascending from the first to the second D and then it is descending. The New/Black Moon is depicted as at Les Pierres Plates.

A lunar menstrual chronogram

As documented several times by the author,[1544] the Neolithic and Copper Age of Southeastern Europe measured time according to nature's cycles, both for daily life and agrarian-pastoral worship. Numerous devices for keeping and measuring time were utilized: vessels, rock art graffiti, oven models, shallow cultic vessels, cult scene, spindle-whorls, etc. They were reminders of cyclical phenomena in nature (e.g., moon phases), or of seasonal events (e.g., recording the time span from sowing to harvesting). The key natural unit for time computing was a day, i.e., the time interval of a full apparent revolving of the Sun in the sky. However, it was necessary to utilize units bigger than a day for properly keeping and measuring periods and intervals of time. Recording time as it passed by was related to gaining experience throughout a long period, which suggests a systematic observation, not only of the Sun's apparent motion with the regular succession of days and nights, but also of the Moon phases (i.e., the cyclically recurring changes of the lunar disc), the movements of other celestial bodies (stars and planets), and the seasonal cycles alternating with hot and cold weather.

The author has already focused his investigation on lunar calendars from the Neolithic and Copper Age of Southeastern Europe evidencing how they operate, their elaborate and accurate features, and their widespread use. Due to the resonance between the lunar cycle and the human menstrual cycle, the signs on a spindle-whorl from Dikili Tash (Macedonia, Greece) have been decoded as a metaphor and a description of reproductive experiences common to women. The find has no precise stratigraphical position. However, this settlement spanned between ca. 5500–4500 BC[1545], 5500–4300 BC[1546] or 5500–4000 BC[1547] (depending on the author) throughout the Neolithic and Copper Age time-frame. The cycle of the Moon corresponds to the female reproductive cycle in duration, and the spindle whorl divides both into overlapping phases, making it possible to use it for keeping track of probabilities for successful procreation. This lunar menstrual calendar was a potent visual reminder:

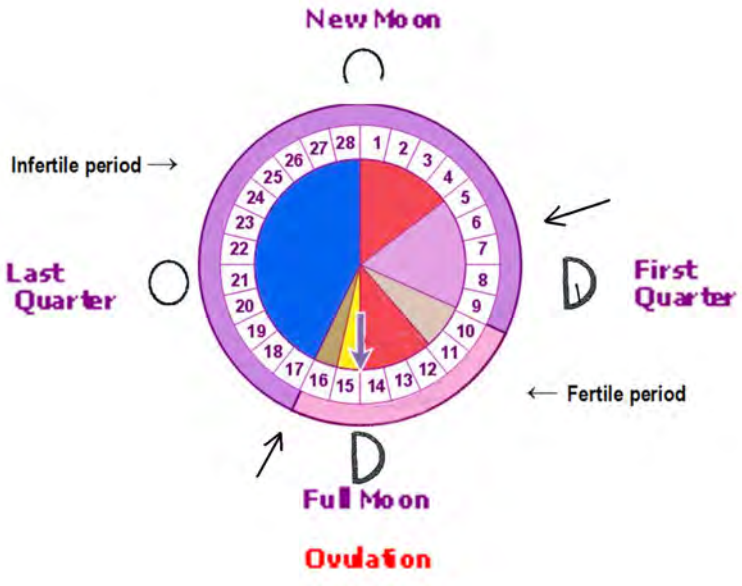


Fig. X.49. Menstrual chronogram of the fertility on the circular tablet from Tărtăria.

[1541] Merlini M. 2009d, p. 466.
[1542] Gimbutas Marija 1989, p. 284, fig. 445.
[1543] Gimbutas Marija 1989, p. 284, fig. 446.2.
[1544] Merlini M. 2009d, p. 223; 2009f; 2009h. See also the concept and organization of the exhibition *Praehistoric people, masters in communication,* European initiative F-MUSEUM.
[1545] Vartanian E. et al. 2001; Roque C. et al. 2002
[1546] Perlès C. 1990.
[1547] Souvatzi Stella 2008, p. 163, 265, note 2.

looking at it, a woman could notice in which phase of the moon she was menstruating and estimate her fertile period, having in mind that the most profitable time for fecundation was the Full Moon[1548].

A similar mechanism is rendered by the combination of signs on the upper right quadrant of the circular tablet from Tărtăria. The short vertical arms of the cross are ten: five are positioned above the horizontal line, and five below it. They may have functioned as a progressive horizontal clockwise-running sequence. The medial arm of the cross pointing down is thicker and longer than the other ones. It extends towards the bigger D, even without touching it. They do not compose a single compound sign, nonetheless they are in close association.

The fertile phase of the human female cycle occurs at either side of ovulation because sperm can survive in fertile mucus awaiting the discharge of an ovum from a mature ovarian follicle. The arms of the cross sign mark the period considered most fertile. We infer that it was believed to start from the seventh day after menstruation up to the sixteenth day included: an interval of ten days. Ovulation (when the oocyte is released) occurs around day fourteen of the cycle, occurring almost fourteen days before the next menstruation. It is marked day eight in the Tărtăria menstrual chronogram of fertility. The calculation is very close to modern calendar methods utilized nowadays to predict fertile days based on a woman's menstrual cycle. The Standard Days Method (SDM), developed at Georgetown University, is a simplified and straightforward calendar-based method, assuming that a fixed period of fertility ('standard rule') occurs from day eight to day nineteen of the cycle, if the first day of menstruation is counted as day one. After keeping track of the length of the menstrual cycle, in order to determine when days eight through nineteen occur, a woman is informed that: between day one and day seven, it is highly unlikely that she will become pregnant; between day eight and day nineteen, the most likely fertile window opens, and between day twenty and day thirty-two there is a insignificant probability of pregnancy.

As mentioned in the previous paragraph, at Tărtăria the signs under the pectiniform symbolize the four phases of the Moon: D the First Quarter; D the Full Moon; O the Last Quarter; and O the Black/New Moon. All over the ancient world, the fertilizing and fecundating light of the moon was regarded as favorable to vegetal grow and human/animal reproduction, as reassumed by Plutarch. According to Eliade, the connection between moon, rain and plant life was realized before the discovery of agriculture[1549]. The Full Moon was the crucial moment of the cycle, and on the Transylvanian tablet the segment indicating the maximum possibility of pregnancy is pointing towards the Full Moon. This Neolithic device encodes the prodromes of the traditional belief that ovulating with the Full Moon gives the best chance of fertility. In this phase the moon triggers production and emission of an oocyte from the ovary for potential fertilization. Due to the reproductive power incarnated by the moon, for a long time people believed that a woman could more proficiently conceive during intercourse in the light of the full moon, or that she might become pregnant by just looking at the moon.

If the spindle-device from Dikili Tash, and other similar lunar menstrual calendars, record the time of practical and conceptual significance focused toward procreation, the tablet-device of Tărtăria encodes a synchronizing symbolism between Moon periodicity and human reproduction. The magic-functional concept synthesized on it is that – if the aim is to maximize the probability of fecundation – the lunar cycle reveals the most suitable length for women's process from menstruation to ovulation. It is positive if they become capable of tuning it to the lunar month and phases because the Full Moon is the crucial moment for both the synodic cycle and women's ovulation cycle, being the trigger of the reproductive process.

Mirroring the female principle with the fecundity of Earth, the signs on this artifact of the Danube civilization also indicate the Full Moon as the maximum period for the fertility of the agricultural soil. Following a millennial cultural continuity, still now in traditional farming, the Full Moon is the time considered appropriate to seed or transplant because the plants root well. European peasants prefer to sow in the moonlight[1550].

Conveying the signs under investigation, the relationship between the human female's fertile period and the lunar cycle, with acme under the Full Moon, the other lunar symbols depicted on the upper right quadrant of the tablet are disconnected from the arms of the cross. As noted by Gh. and C.-M. Lazarovici[1551], their diminishing size indicates the decreasing moon, and at the same time the declining possibility of pregnancy. The last shape is not only the smaller one, but is also cut.

[1548] Merlini M. 2009d, p. 223.
[1549] Eliade M. 1978, p. 161.
[1550] Golan A. 2003, p. 142.
[1551] See Chapter VII.

I have already provided information concerning the shape of the signs utilized at Tărtăria to indicate the phases of the moon. Expanding upon the subject of the rounded silhouette of the last crescent, one has to observe that after the state of greatest fullness, the moon progressively wanes. However, it was believed that, if the moon provides maximum procreative force as the Full Moon enhancing the fertility necessary to create a new being, during the waning period it does not slice the relationship with the new life. It nourishes the embryo or the seed. Providing them with the substances necessary for growth and health, they germinate and bloom, whereas it reduces in size as on the tablet. The parallel with a pregnant woman is appropriate, because she becomes rounded putting on weight and fat only as a receptacle of the growing fetus. She actually loses weight and becomes lean.

The graphic rendering of the moon – the uterus of a woman characterized by the inception of pregnancy under the Full Moon as a small circle – is confirmed by the occurrence of the O associated with a 🌀 (symbol of energy and cyclical time[1552]) to comprise two-sign inscriptions positioned on the buttocks of female figurines. The first inscription appears on a Karanovo VI – Gumelnița B – Kodžadermen statuette with a trapezoidal head and cylindrical body that was discovered at Măriuța (Romania)[1553]. The second inscription is incised on a Late Copper Age statuette from the archaeological site next to the village of Bazovets (Rousse District, northern-central Bulgaria)[1554]. The two-sign inscriptions under investigation have a horizontal format and horizontal direction of the signs. They are associable to the female genitals depicted on the figurines with the fetus inside. It is a top-down triangle with a circular impression in the center at Măriuța, and a top-down triangle with a vertical stroke rising from the lower vertex at Bazovets. Both the settlements have local relevance for the network of the Danube script[1555].

Fig. X.50. The sign O associated with a 🌀 on the buttocks of a Karanovo VI – Gumelnița B – Kodžadermen statuette from Măriuța (Romania).

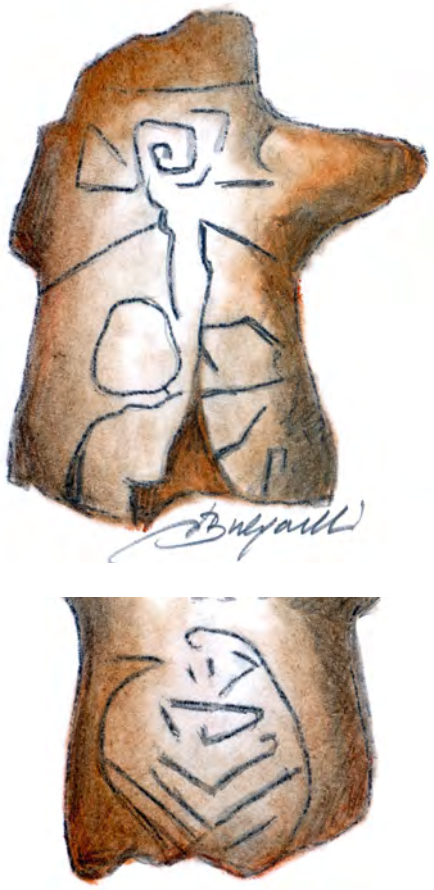


Fig. X.51. The sign O associated with a 🌀 on the buttocks of a Late Copper Age female figurine from Bazovets (Bulgaria). (After Daniela Bulgarelli © Prehistory Knowledge Project).

[1552] Gimbutas Marija 1989, p. 279, fig. 433.
[1553] Parnic V., Lazăr C. 2005, fig.16/1, 2.
[1554] Mitkova R. 2005, table VII–2.
[1555] Merlini M. 2009d, p. 486.

The credence fixed on the rounded tablet of Tărtăria associates the Black/New Moon with the start of menstruation at the centre of the infertile phase. It is confirmed by the mythological thinking that the moon causes the 'monthly indisposition' in women. It is called among different populations equally: 'moon sickness', 'moon change', or simply 'the moon'[1556]. We do not know if in the Danube civilization menstruating women were considered ritually unclean and subjected to strict taboos as in other ancient civilizations. One does not glimpse any superstitious fear of menstruating status depicted on artifacts. One can rather infer the rendering of the conviction that both the woman discharging monthly blood from the vagina and the Black/New Moon with an open orifice in the lower area were at the midpoint of the infertile period.

To sum up, the lunar cycle based on the Full Moon that is displayed on the circular tablet was not a time marker or a time factor, but a sort of 'quality mark' for the proper period designed for procreation and its apex. The combination of signs is not a time-keeping as on the spindle-whorl from Dilìkili Tash, which is established upon the idea that the moon rate of fecundating quality is predictable during its entire monthly cycle on the basis of the changes of its visible aspect. Ovulation and subsequent intercourse, therefore, could be scheduled in order to maximize the reproductive potentiality of the Full Moon. The Transylvanian tablet was a time-reminder of the luckiest day having the Full Moon as a point of reference. It possibly expresses the general symbolism of growing in the nature in accordance with the lunar cycle, and harmonizing the menstrual cycle with the lunar cycle as the procedure believed most appropriate to enhance the power of impregnation. The periodical and regular events registered by the moon worked as a benchmark by which to compare and assess the human procreative cycle, tuning menstruation with the Black/New Moon, and ovulation with the Full Moon.

We have to remember that this combination of signs was engraved on the area of the tablet, that could be covered by the oblong holed tablet, conveying a sacred, esoteric message. For this reason, the symbols indicating the lunar phases are abstract and not naturalistically rendered. They are crypto-signs. Therefore, we have to go in search of a secret knowledge that stands behind the fertility awareness method and chronogram based on reproductive physiology that characterize the spindle-whorl from Dikili Tash and other similar devices. At Tărtăria, the secret symbolism would not be limited to the magic-functional notion that co-occurrence of ovulation and the Full Moon guaranties the most procreative success. It possibly expresses the magical credence that a person conceived at the ovulation during the Full Moon and under its influence could be children of the divinized Moon. He/she assumes its secret attributes and powers and becomes a very special and successful person. A hero/heroine?

Occurrence of a numbering system

The decoding of the lunar menstrual chronogram has as a consequence the recognition of the presence of a numbering system in the Danube civilization, at least utilizing a unary counting mechanism in making calendar denotations.

Each arm of the 𝍸 corresponds to a twenty-four-hour period, and the combination of ten simple number units composes the interval suitable for human procreation. On the rounded tablet, it the oldest system is employed for enumerating, with roots in the series of neat notches borne by countless Upper Paleolithic bones. Many of them keep track of lunar phases creating useful calendars. Although several authors assume that the utilization of tallies stops with the spread of literacy in a society[1557], historically it did not happen so. Until 1834, the exchequer of the British Treasury used tally sticks to record receipts, adding explanatory notes to the notches.

The unary numbering system exploited at Tărtăria occurs on several artifacts of the Danube civilization bearing chronograms and calendars. For example, a similar mechanism informs the Karanovo VI – Gumelnița B – Kodžadermen sun-based calendar recovered at Dolnoslav (Plovdiv district, Bulgaria). The inscribed artifact can be dated to around 4500–4100 CAL BC[1558]. Here the number sets are divided into groups in the form of a spiral starting from the centre and turning to the left. As at Tărtăria, the calendar is incomplete. The choice was to register the 124-days vital for crops: from March 22 to July 24[1559].

[1556] Golan A. 2003, p. 142.
[1557] Robinson A. 1995, p. 54.
[1558] Merlini M. 2009d, p. 467.
[1559] Stoytchev 1997, p. 30, 34.

Apart the above mentioned three-armed[1560], four-armed[1561], five-armed and seven-armed signs, in the Danube civilization there are examples of six-armed (at Turdaș[1562]), eight-armed[1563], and nine-armed signs. The occurrence of a twelve-armed sign on the bottom of a vessel from Turdaș[1564] poses the question if a duodecimal system (based on twelve) was applied. In the Turdaș culture, the system of numbering or quantification was put in use during the production of vessels (since the incision of pectiniform signs generally took place before firing) on the base or on the lower side adjacent to their base[1565]. It possibly represents the application of the graphic mechanism that was employed some centuries earlier on the circular tablet from Tărtăria. If there are neither structural nor graphic discontinuities in the two numbering systems, at Tărtăria the enumerating system and the numerical elements did not involve vessel production, but astronomical and physiological knowledge to be recorded and transmitted.

DatDas registers not only the multi-armed line as a typology of signs that are possibly numbers. The other categories are: vertical lines, diagonal lines, horizontal lines, strokes, and dots. It will be necessary to make a distinction between the numerical system (including fractions), the metrological system, and the accounting system, as well as to explicate how the last systems worked. I have previously analyzed the 'multiple' bracket shape as a form of record keeping.

Future semiotic research has to test if some signs – with non-intuitive shapes such as numerals – actually express arithmetical values (e.g., O = 100 in Linear B). This could be inferred, from a larger number of samples, by a cross analysis between abstract signs and pictographic/ideographic signs associated on the same artifact (the first ones positioned are always before or after the second ones). A combination of pictograms and repeated abstract signs may represent associated qualitative and quantitative (numerical) notations[1566]. This is attested in one of the first text categories from Uruk IV. It consists of tablets bearing a numeric notation and a small number of ideographic signs, probably a quantity of a product, the product itself, and a personal name, without partitioning into columns and cases[1567].

Fig. X.52. Tablet PH 11 from Phaistos (Crete), XVIII century BC. (After L. Godart 2001, fig. 31)

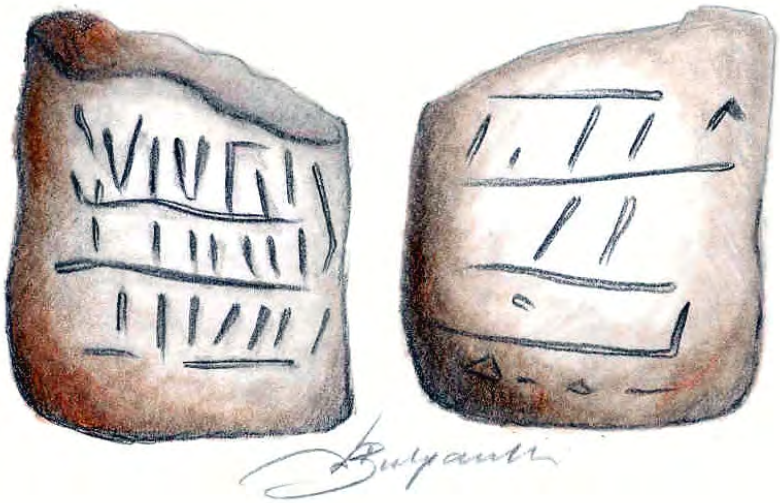


Fig. X.53. One of the so-called black and meaningless tablets from Tangâru (Romania). (After Daniela Bulgarelli © Prehistory Knowledge Project).

The example from Uruk poses the significant question if the Danube civilization employed numbers only as symbols and used them exclusively within a religious frame (magic numbers connected

[1560] One has to mention also the occurrence of the three-armed sign within an isolated context at Valač (Winn S. 1981, p. 271, fig. 1), Turdaș (Roska M. 1941, pl. LXXXVI, 4; Todorović J. 1969, pl. VI, 16; Makkay J. 1969, A8, 6; Winn S. 1981, p. 282, fig. 197), and Banjica (Todorović J., Cermanović A. 1961, pl. XXXIII, 60; Winn S. 1981, p. 312, fig. 83).

[1561] As a single sign, the 𒐗 occurs also at Turdaș (Todorović J. 1969, II, 28; Winn S. 1981, p. 282, fig. 198).

[1562] Winn S. 1981, p. 274, fig. 54.

[1563] Winn S. 2004a on line fig 11.9. Here the eight-armed line is associated with a long I.

[1564] Roska M. 1941, pl. CXXXV, 18; Todorović J. 1969, p. II, 42; Makkay J. 1969, A18, 10; Winn S. 1981, p. 283, fig. 200.

[1565] Winn S. 2004a.

[1566] Marangou Christina 2001, p. 23.

[1567] Nissen H. J. et al. 1993, p. 20, fig. 21.

to good luck or divinities' attributes), or if it developed a numbering system by utilizing it also in the economic sector, i.e., recording the making, storage, circulation and distribution of agricultural and craft-industrial products. Has one to deal only with numerology or also with a numerical system and/or an accounting system and/or a measurement system that involved calculations? Did religious functions dominate the early phase of literacy in the Danube civilization, while in the course of time the use of signs extended to encompass the sphere of everyday life?[1568]. Are some tablets bearing numbers, fractions, measures, and weights in correspondence with pictograms or ideograms, as in Linear B?

The identification of the numbering system was one of the starting points for the decipherment of Linear B. It happened not only because the tablets were palace records, but also because numbers are one of the most distinguishable component of a script. In addition, numbers are non-phonetic and can therefore be used in any language. Astonishing is the likeness of the clay tablet PH 11 from Phaistos (Crete), which indicates the invention of the numeral code in the Aegean context[1569], and the so-called black and meaningless tablets from Tangâru (Romania).[1570]

On the Cretan tablet, any vertical segment corresponds to a bookkeeping operation. As at Tărtăria, a single stroke indicates 1, two strokes represent 2, and so on. If this archive documents records, dozens of administrative transactions in the form of vertical strokes do not provide information on the nature of the goods counted, the partners involved, and so on. According to D. Schmandt-Besserat, in Mesopotamia the bookkeeping mechanism of the tokens generated an impulse for the counting and numbering system. Several historians speak of actual writing from this phase and consider the tokens stamped on the containers to be the forerunners of mathematics[1571].

Having the inventory of the Danube script, which includes signs comprised of up to eleven lines, one can reasonably assume the occurrence of a numbering system based on simple straight lines. Could this represent a duodecimal system based on the pectiniform?

XD. CLUES OF INDIGENOUS LITERACY AT TĂRTĂRIA?

If the Transylvanian rounded undrilled tablet is bearing not pictograms, but naturalistic although schematic depictions expressing at the same time iconic and symbolic elements, what about the other two inscribed artifacts? Do they bear marks of literacy? The signs from Tărtăria are intentional, distinctive and highly stylized. They are represented with a conventional shape conformed to a precise and systematic inventory and have a similar size within the same inscription. They are not spontaneously created signs. The need to deliver messages is confirmed by the utilization of plaques-tablets as a medium.

The Tărtăria markings[1572] are compared below with signs inventoried from early writings. Possible graphic convergences in shape and spatial organization of the Tărtăria signs are compared with those of the Danube script that developed throughout the Neolithic and Copper Age in Southeastern and Central Europe, and the mono-signs from the correlated Danube civilization. The comparison is extended to other early systems of writing: Proto-cuneiform at Uruk, Akkadian cuneiform, the Indus script, Hieroglyphic Luwian, Cretan Linear A, Cretan Hieroglyphic, Linear B, and Cypriot syllabary.

Dealing with the graphic parallels between Tărtăria and the Danube script, the correlation value is high, because 65% of the signs from the former are fully or partially present in the inventory of the latter (nine complete concordances and four imperfect convergences over twenty sign types). Many Transylvanian signs such as *y*, ≫, and))) are very frequently found within inscriptions at numerous literate settlements of the Danube civilization and are pillars of the related script. A significant indicator of the close links with the Danube script is the utilization at Tărtăria of the technique to vary root-signs, either by applying diacritical marks to them, as in the case of the *y* varied by a stroke, or engaging a multiplicative procedure, as for the ≫, and))). The rate of convergences arises to 75% if the occurrences of Tărtăria signs as mono-signs on artifacts are counted (fourteen complete concordances and one partial parallelism).

[1568] Starović A. 2004, p. 28.
[1569] Godart L. 2001, p. 109.
[1570] Berciu D. 1961.
[1571] Schmandt-Besserat D. 1996, p. 128.
[1572] When avoiding duplications and elements of compound signs, they are twenty.

Sign convergence with early writings					
Detected signs at Tărtăria	Danube script	Mono-signs Danube civilization	Protocuneif. at Uruk[1572]	Akkadian cuneiform[1573]	Indus script[1574]
	YES DS 013.7	YES	NO	NO	PART. 156
	PART. DS 052.0	YES	YES ATU 98	NO	NO
	YES DS 052.0	YES	YES ATU 98	NO	NO
	YES DS 007.0	YES	PART. ATU 224 = ZATU 549	NO	NO
	YES DS 064.0	YES	NO	PART. L. 128	PART. 234
	NO	NO	YES ATU 192	NO	PART. 256
	NO	YES	YES ATU 47	PART. L. 297	NO
	PART. DS 107.1 plus DS 018.2	NO	NO	NO	NO
	NO	YES	PART.ATU 721 = ZATU 40	PART. L. 449 or L. 5	NO
	YES DS 004.1	YES	NO	NO	NO
	YES DS 020.1a	YES	PART. JN 47	PART. L. 295 ‘branch’, ‘club’, scepter’ or L. 467 ‘god’, ‘hero’	NO
	NO	YES	PART. ATU 185	PART. L. 353 or L. 172	NO
	NO	NO	NO	NO	NO
	NO	NO	PART. NO	NO	NO
	NO	NO	NO	NO	NO
	YES DS 032.1	YES	NO	PART.L. 99 ‘Lord’, ‘God’ or L 436 ‘settlement foundations’	YES 53
	PART. DS 033.0	PART.	PART. ATU 709	PART. L. 480	PART. 181
	PART. DS 020.3	YES	NO	PART. L. 72	PART. 108
	NO	NO	PART. ATU 528	NO	PART. 187
D	YES DS 033.0	YES	YES ATU 527	YES L. 480	PART. 181
O	YES DS 071.0	YES	YES ATU 753 = ZATU 308	YES L. 396 or L. 472	YES 341
	NO	NO	NO	NO	NO

Table 1 – List of the signs from Tărtăria compared to the inventories of the Danube script, mono-signs of the Danube civilization, Proto-cuneiform at Uruk, Akkadian cuneiform, and the Indus script.

[1573] ATU, Falkenstein A. 1965, fig. 1; Falkenstein A. 1936 (Uruk). ZATU, Green M. W., Nissen H. J. 1987.
[1574] Labat R. 1976.
[1575] After Parpola A. 1996, p. 167, tab. 11.1. server, http://www.mpiwgberlin.mpg.de/Preprints/P183.PDF.

Sign convergence with early writings					
Detected signs at Tărtăria	**Hieroglyphic Luwian[1575]**	**Linear A[1576]**	**Cretan Hieroglyphic[1577]**	**Linear B[1578]**	**Cypriot syllabary[1579]**
	NO	NO	NO	NO	NO
	PART. 'orient' or *i(*a)	PART. AB04	YES 025	NO	NO
	PART. 'orient' or *i(a)*	YES AB04	NO	NO	NO
	NO	PART. AB01	YES 025	PART. *DA*	PART.*ta*
	NO	NO	NO	NO	PART. *le*
	NO	YES AB44	NO	NO	PART. *e*
	YES *hu*	NO	YES 011	NO	NO
	PART. *mi*	NO	NO	NO	NO
	PART. *hwi/a*	PART. AB20 and AB21	NO	PART. *zo*	PART. *xe*
	YES 'road'	NO	NO	NO	PART. *pi*
	NO	YES AB03	NO	YES B03 *pa*	YES pa
	PART. 'throne'	PART. A318	NO	NO	NO
	NO	NO	PART. 004	PART. ('option.' sign)	NO
()	NO	NO	NO	NO	NO
()	YES *hu*	NO	NO	NO	NO
	PART. 'throne'	PART. AB55	NO	PART. *pa3*	NO
	NO	PART. A709	NO	NO	NO
	NO	NO	NO	NO	NO
	NO	NO	NO	NO	NO
	NO	PART. A709			
0	NO	YES A309a	YES 073	YES numeral 100	NO
	NO	NO	NO	NO	NO

*Table 2 – List of the signs from Tărtăria compared to the inventories of Hieroglyphic Luwian, Cretan Linear A, Cretan Hieroglyphic, and Cypriot syllab*ary.

[1576] After Laroche E. 1960; Meriggi P. 1962; Hawkins D. 2000.

[1577] Outline of the signs and numeration after Godart L., Oliver J.-P. 1985, p. XXI–XXII.

[1578] Standardized Cretan Hieroglyphic signs after Olivier J. P., Godart L. 1996. Signs labeled with A are found only in Linear A; those labeled AB are found in both Linear A and B.

[1579] After Chadwick J. 1990, p. 158–9; Robinson A. 2002, p. 88; Arapopoulou A., Chritē A. 2007, p. 254, fig. 28.

[1580] Normalized forms from Chadwick J. 1990, p. 187, tab. 34.

Features of the script on the Tărtăria tablets are evidence that in the Danube civilization there was a sacred system of writing expressing magic-religious beliefs, and used in liturgies. It was not primarily used for commercial transactions or for recording administrative documents, but for communicating with the super-human forces as well as within the human sphere with reference to magic-religious affairs (among practitioners, believers, village or tribal leaders, neighboring settlements, etc.). Graphic transcriptions show a spectacular mental advance, but not yet an urgent commercial administration. Inscriptions have often been found on objects connected with a magic-religious context: tablets-plates (as those recovered at Tărtăria), clay female figurines, miniature altars-offering tables, votive offerings (sometimes ex-votes), libation vases, miniature vessels, spindle whorls, seals, temple models, and loom weights.

Still nowadays, several scholars deny a significant Tărtăria – Danube script convergence in sign shape, maintaining instead that there was a close relationship between the Transylvanian signs and early Sumerian pictograms/ideograms. The present comparative analysis found 65% correspondences for the Danube script. However, one has to note that in the instance of Proto-cuneiform, the complete concordances are only six, and the partial ones are seven. Therefore, most of the similarities in shape are very general, unspecific or uncertain.

Besides, the comparisons between Tărtăria–Danube script and Tărtăria–Proto-cuneiform are not commensurable due to the different systems used in establishing the sign lists. *DatDas* settles the inventory of signs employed by the Neolithic and Copper Age script that developed in Southeastern–Central Europe under very restricted rules. Firstly, it records only inscriptions with two or more signs because, when a mark appears in isolation, it is usually not obvious if it is a sign of writing (with linguistic label or not), or if it is a symbol, or an artistic motif. The accumulated semiotic background on the Danube communication system is still inadequate for the task, and the nature of several marks is multidimensional[1581], and dependent on a context that is mainly obscure to us. Secondly, *DatDas* does not register signs found up to now only in one settlement. They are considered mere local marks until their discovery also in other sites. The list of the early Sumerian pictograms/ideograms is not established upon such a doubly restricted criteria. If the same restrictions are applied to it, one has to delete JN 47, ATU 709, ATU 528, ATU 527, and ATU 753 due to their presence on only a single artifact. The rate of convergence collapses to 45% (with only four complete concordances and five partial parallelisms). If on the other side one applies the criteria utilized for the Proto-cuneiform list to the inventory of the Danube script, its rate of convergence would rise to 75% (with ten full concordances and five partial similarities).

The inventory of the Danube script lists 295 sign types. The inventory of the Proto-cuneiform is composed of 940 signs, according to the ATU list and, after Falkenstein's sorting out, many others have been added. This means that the twenty sign types from Tărtăria cluster 4.4% of the sign types of the Danube script and intercept only 1.4% of the sign types of the Proto-cuneiform. They cluster only 0.9% in the case of a list depurated from signs occurring on a single artifact. If we take into account only the exact convergences, the signs from Tărtăria cluster 3.1% of the sign types of the Danube script, and they collect only 0.6% of the sign types of the Proto-cuneiform, and a sparse 0.3% from the depurated list.

In addition, parallels in terms of direct or indirect influences in sign resemblance between Tărtăria and Proto-cuneiform have to be excluded as inconsistent due to the very early date of the tablets according to the C14 analysis of Milady Tărtăria's bones. The Neolithic at Tărtăria and the Bronze Age in Mesopotamia are divided by a gap of nearly two millennia.

Concerning the 'materiality of writing technology', possible Mesopotamian convergence has not a shred of evidence due to several factors, such as the absence among the early Near Eastern tablets of string-holes that characterize two of the Tărtăria tablets, the high rarity of small circular tablets to compare with the Transylvanian example, and the presence in small numbers of relatively flat rectangular tablets that, however, are much larger than the European counterparts. It is also important to consider the different techniques used to incise the numerals, such as the 𒐗. At Tărtăria, the whole shape of the sign is incised in outline by a blunt point made of bone or wood that was held obliquely, while the equivalent sign is sunk in the clay with a stylus on the Uruk tablets. Scholars in search of literate parallels between the two so distant regions emphasize the lack of traces from the wedge-shaped instrument employed for cuneiform both in Transylvania and in Mesopotamia. However, the occurrence of a non-existence is a very weak circumstantial evidence to suppose a convergence.

[1581] Gimbutas Marija 1991, p. 310 ff.

In addition, if the Tărtăria signs show resemblances to Pre-dynastic Mesopotamian writing, it is also the case of other ancient systems of writing subsequent to the Danube script. Even the scheme of partitioning groups of signs within sections that are separated by incised lines is present, not only in Transylvania and in Mesopotamia, but also in other ancient literate areas.

In conclusion, inspecting graphic parallelisms, chronological frame, materiality of writing technology, and spatial semiotic criteria, there are no compelling reasons to go in search of Near Eastern agencies for the introduction of the sign system in Southeastern Europe and to explicate the signs engraved on the Tărtăria tablets.

The convergence rate of Tărtăria with Akkadian cuneiform is 50% due to 8 partial parallelisms and only 2 complete concordances. Cuneiform was adopted by the Semitic Akkadians when they replaced the declining Sumerian civilization around 2500 BC. Under their prompt, the writing system changed from chiefly logographic to chiefly syllabic. Akkadian cuneiform is a syllabic system with 6.5%–3.5% logograms[1582].

Inspecting graphic analogies in sign shapes between Tărtăria and the Indus script, the rate is 45%. One finds seven partial correspondences and only two exact ones. The statistically documented convergence between the signs employed in the Developed/Middle Neolithic Tărtăria and the inventory of this ancient script that flourished ca. 2600–1800 BC is quite limited and is still not decoded[1583]. The list of sign convergences between Tărtăria and Hieroglyphic Luwian (from ca.1400 BC to 700 BC), invented by Hittites in Anatolia to record the language from the neighbors Luwians, registers three full graphic parallels and 6six partial ones: 45%.

The analysis of the convergences between Tărtăria and the Aegean scripts of the Bronze Age is significant. The repertory of graphic likenesses between the Neolithic Transylvanian signs and the inventory of the still not fully deciphered Cretan Linear A shows only four complete correspondences plus six partial ones: 55%. The earlier Linear A texts[1584] have been found in funerary buildings 5 and 6 at the necropolis of Arkhanès-Phourni, in Minoan Crete (MM IA-MM II pottery contexts which is ascertained not before ca. 2100–2050 BC). This script spread up to the Protopalatial period (ca.1925–1725 BC) at Crete, Troy and Samothrace, and up to the Postpalatial period (ca.1380–1000 BC) at Lachish and Tiryns. Sign similarities between the Tărtăria tablets and the Cretan Hieroglyphic are even weaker: four full resemblances plus one partial: 25%. The utilization of Minoan Hieroglyphic documents is coeval with Linear A. This script had a 'life history' of some 500–550 years until the destruction of the Minoan palaces ca. 1450 BC[1585]. The scarcity of sign convergences between the Neolithic Transylvanian and Minoan writings (linear and hieroglyphic) does not evidence a cultural continuity from the Danube civilization to ancient Crete. It also excludes the idea, maintained by Hood and other scholars, to locate Tărtăria within the cultural horizon of comparable tablets in Crete, perhaps before 2000 BC, but more probably as late as 1750 BC[1586].

Not very high is the convergence of signs from Tărtăria with Linear B, the script of the Mycenaean Bronze Age, and the earliest European system of writing we can understand. Linear B consists of about eighty-seven signs. It is principally syllabic with pictographic/ideographic and numerical components. Linear B was used in the period between approximately 1600–1400 BC and 1200 BC[1587]. It fully matches two Transylvanian signs and four partially: 30%.

A similar graphic parallelism can be established between the Tărtăria signs and the Cypro–Minoan syllabic script (Cypriot syllabary). It is an indigenous linear script, not fully deciphered, that flourished from the middle of the second millennium BC onwards in Late Bronze Age Cyprus, one of the largest islands in the Mediterranean Sea[1588]. The Cypriot syllabary is a unique conflation of the Eastern and Western traditions[1589] which, in general, utilizes texts characterized by extreme brevity, as in the Danube script, to express an ancient non-Greek language. Only one sign from its inventory matches the Transylvanian signs, and five partially: 30%. However, according to Emilia Masson, the list of eighty-five signs from the earliest Cypro–Minoan syllabary also includes six signs ( , , , , ,

[1582] Civil M. 1973, p. 26.
[1583] Parpola A. 1986; 1994; 1996; 2005.
[1584] Duhoux Y. 1989a, p. 40; Galanakis K. 2005; Godart L. 2001, p. XIV.
[1585] Bennett E. L. 1996; Olivier J. P. 1986a; Godart L. 2001, p. 139.
[1586] Hood M. S. F. 1967, p. 110; Charvát P. 1975.
[1587] Merlini M. 2008d, p. 85 ff.
[1588] Masson Emilia 1974; 1987; Haarmann H. 1995, p. 130; Merlini M. 2008d, p. 226.
[1589] Smith J. S. 2002.

and ⊟) that fully or partially match the Neolithic Transylvanian sign list[1590]. In this case, the rate in sign resemblances increases to 60%.

The present comparative review does not contemplate an analysis of possible convergences of the signs engraved on the Tărtăria tablets with alphabets, which represent a completely different literate development. However, it is significant to note that three Transylvanian sign types show letter-like forms (*y*, D, O) plus one partially (⫩). If the fact demonstrates that the shape of these signs vastly predates the letters of the Latin alphabet, the evidence of correspondences in sign silhouette does not mean that some of the alphabetic letters directly originated from the Tărtăria tablets. The discovery of graphic parallels does not challenge the commonly accepted theory that the Latin alphabet was derived from the Greek alphabet that has a debt to the Phoenician one, which is about three millennia younger than the signs found in Transylvania. However, some symbols do seem to have remained in use (or in the visual collective memory) for millennia[1591]. Even if chronology, geography, and historical circumstances exclude a case of cultural continuity, it is odd to read in manuals that the Latin letter D assumed the rounded shape in Etruscan times coming from the Greek Δ that originated from the Phoenician *daleth*, ◁, i.e., a sign comprised of a corner closed by a hypotenuse[1592]. It is even stranger to learn that the O has the same silhouette in Greek and Phoenician that was derived from the Egyptian hieroglyph of an eye, ⬭, or from similar shapes in Crete or Sumer[1593]. Both the Latin alphabetic letters D and O have been derived from signs quite different in shape from them through a transformation that lasted millennia. Nonetheless, they are fully graphically developed at Tărtăria and are key signs of the Danube script.

To summarize, the resemblances in sign outline between the Transylvanian signs and the Mesopotamian or Aegean signs is approximate and unspecific, whereas close correspondences occur with the signs of literacy employed by the Danube civilization. If some possible Mesopotamian or Cretan analogies in shape can be found for the Transylvanian signs, no external influence and/or origin is required for them. These signs were used in Southeastern Europe two millennia before, having been widely diffused in Vinča settlements, occurring even in the preceding Formative stage of the Danube script that had autochthonous genesis in the Balkan-Danube region.

The weak parallels between the Transylvanian signs and Mesopotamian pictography/ideography, as well as the strong correspondences between the former ones and the signs employed by the Danube script, are consistent with the more general fact that, if one compares the Neolithic and Copper Age European signs with those on the ATU-list[1594], one cannot observe any substantial convergence[1595]. Chronological and graphic motives exclude outside influences on the formation of the Danube sign system, either from the drift from east to west of the idea of writing, or in terms of any significant contribution to inventory and space organization of the signs[1596]. Writing technology was a result that Southeastern Europe achieved based on its own cultural identity. It was a component of a wide range of civilizational innovations natively generated or, if imported (as metallurgy), locally metabolized and developed. Statements that writing technology, or at least the idea of writing, were spread by the plough of the earliest farmers from the Near East to the Danube Basin and beyond, or were culturally transmitted from the Orient, are not documented on semiotic ground, or by close examination of the sign types and organization of the reading space employed by the Danube script.

The secret code of a sacred script

Some deficiencies in matching have to be noticed between the Tărtăria signs and the corpus of the inscriptions from the Danube script. First, some signs are found only at Tărtăria but not elsewhere in the Danube civilization: seven signs over twenty (35%). How is this to be explained? Second, a graphic divide operates between the signs from Tărtăria and the literacy signs from Southeastern-Central Europe. In the first case, they are rendered in a style that is pictographic and iconic, whereas in the second they are depicted according to a design that is mainly abstract and schematized. Since the Paleolithic assemblage, there is evidence of the human capacity to produce figurative images (depicting sun, moon, mountains,

[1590] Masson Emilia 1987, p. 378 ff.
[1591] Merlini M. 2004a, p. 125; 2005b; 2005c; 2009d, p. 526.
[1592] Trévoux G. 1979, p. 143.
[1593] Trévoux G. 1979, p. 213; Davies W. V. 1990, p. 132.
[1594] Green M. W., Nissen H. J. 1987.
[1595] Merlini M. 2009d, p. 679.
[1596] Haarmann H. 2002; Merlini M. 2004a.

rivers, animals, people, artifacts, etc. in representational style) as well as abstract signs and geometrical motifs such as rows of dots and grids. *DatDas* categorizes as abstract signs of the Danube script the basic geometric forms that lack any recognizable visual association with natural phenomena or artificial objects (V, X, Y, lozenge, triangle, and so on). It identifies as pictograms/ideograms signs depicting occurrences resulting from natural forces, living creatures, structures or objects that can be recognized in association with the figurative sense of that time, regardless of the high degree of stylization. If the establishment of a border between abstractness and iconography in sign shape was in progress and in part presumptive, a firm point – comparing the Danube script with the other ancient scripts – is its high degree of abstractness: the proportions of abstract signs that serve to render information outnumber iconic signs. About 69.5% of the inventoried signs follow an abstract code; around 12.5% functioned as numerals, although the detection is still quite putative; pictograms/ideograms are only 18.0%. The characterization of ancient Neolithic literacy by an abstract code united to schematization in sign shape is in tune with a marked propensity of the Danube civilization toward abstraction and stylization in symbolism and decoration.

The Transylvanian tablets represent an exception: 55.0% of the employed signs are pictographic and in several cases their rendering is naturalistic. This fact poses questions concerning the high number of abstract and arbitrary signs recorded by *DatDas* that is apparently incongruent with the iconic code massively utilized at Tărtăria. The author does not exclude that refining the analysis according to a recognized association of the Danube script signs with the figurative sense of that time might make it possible to translate some signs from the abstract field to the pictographic/ideographic arena, accepting a possible naturalistic origin through visual connection with natural forces, living creatures, or objects. The author might have confused abstractness in code with stylization in sign shape. In this case, the analysis of the Tărtăria tablets can be a start-up for such a revision.

However, one has to note other features of the Tărtăria signs that make them unlike most of the inscriptions of the Danube script: carefulness in execution, very clear-cut silhouettes (although they suffered from the hydrochloric acid bath at the museum), deep engravings, prominent positions, an emphatic style, oversized shapes, and outlines shaped according to a precise visual standard. The semiotic code of the tablets is similar to one employed in 'special' artifacts such as the aforementioned doughnut-shaped cultic disc from Turdaș and some female figurines. On the contrary, in most situations, the signs of the Danube script are scratched roughly and superficially, inaccurately made, incised carelessly, small sized, and inaccurate in outline, although following the standard of an inventory.

In addition, at Tărtăria signs were engraved to function both as an open text and a secret text on tablets that were utilized as a compound amulet-necklace by Milady Tărtăria. They were buried as complete objects with her fragmented osseous remains and belongings. Most of the researchers have examined only the circular tablet and related signs, being the most script-like, as a self-sufficient object which they try to decode independently from the other two tablets and the cultural environment. However, the pit-grave, the bone relics of the holy individual, and her paraphernalia/adornments/identifiers form a "consecrated unity". They are substantial elements of a Vinča A secondary burial for a special ritual practitioner who became a novel ancestor. As a consequence, one can exclude that the tablets describe her life, death, and post-mortem life. It is possible that the drilled artifacts were placed onto the neck of the dead during the first funeral and the defleshing process, not because they inform how she spent her life, how she died, and how she will support community from the land of ancestors.

This point of view is sustained by Perlov and other scholars who, persuaded without any evidence that a ritual killing or a sacrifice into fire of a high priest and cannibalistic rituals occurred at Tărtăria, search for information from the tablets concerning the identity of the buried person and how the event happened. This is supported also by scholars claiming that the secondary burial happened with a fire that turned the string into ashes[1597]. However, neither a fire, nor a sacrificial ceremony, nor an anthropophagic rite happened at Tărtăria, as I have documented in Chapter VII[1598]. The tablets were ritual tools worn by her on special occasions while she was alive, as attested by the modest amount of wear to the hole due to a string. When the inscribed objects were not employed in ceremonies, they might have been suspended on a wall of the dwelling-sanctuary of Milady Tărtăria, as supposed by Harmatta[1599].

[1597] Friedrich K. online.

[1598] See evidence and documentation also in Merlini M. 2004b; Lazarovici Gh., Merlini M. 2005; Merlini M. 2006.

[1599] Harmatta J. 1966.

The Transylvanian tablets functioned as initiatory ritual tools engraved with magical signs that represent *cryptograms:* signs of literacy as well as symbols with initiatory significance and esoteric meaning. Their combination composes *mythograms*: chains of written signs and magic-religious symbols aimed to record (fix), preserve, and transmit portions of spiritual initiatory knowledge. The tablets are encoded with a magic-sacral script that resonates with an archaic and distinctive magic-religious language of divinities, spirits, otherworld forces, and sorcerers. This arcane language was possibly composed of an artificial, spiritual-slang and incomprehensible terms. Its aim was both to conceal and reveal. According to our semiotic investigation, the mythograms incised on the tablets have a double purpose[1600]. The first is to express principles through mythical dramas. At Tărtăria, *mythograms* induced the adepts to recall and orally convey a story or an epopee where personages were mythic beings believed to possess supernatural powers with influence over the living. Secondly, the *mythograms* engraved on the tablets were a ritual canvas used to pilot the performance of the related liturgical practices, i.e., animating mimetic representations and mythological scenes with an identification between initiated persons and divinity.

The Tărtăria tablets convey an exclusive script for a special group of people, those who have mastered this particular communicational code that has the Danube script as a point of reference but is not restricted to it. It was a necessarily a small group comprised of initiates meticulously trained in sacred literacy, symbolism and rituals. It configured magical-religious exclusiveness inbuilt in the very process of writing, with deep roots in sacred symbolism. An enigmatic and secret script was in play with its own mode of information storage.

There are plenty of similar cases in the history of writing. Some which comparisons might be productive for the solution to the 'enigma Tărtăria'. The Runes, invented by 150 CE, are connected with secret writing utilized in rituals. Run or rune means 'secret' in Old Irish, Old Saxon and Middle High German. If the earliest runes appear to be nametapes, with no inherently magic overtones[1601], clearly cut runes had no obvious meaning, but acted as a magical charm to protect or bring good luck to the owner of valuable artifacts. According to several scholars, the runes encrypt a secret code believed to posses the power – to be managed through magical practice – to release forces/energies, to attract good will or to limit bad influences, and to reveal future events[1602]. Runes are bearers of potential powers without being "letters" or being "read". In a Norse myth, the god Odin captured the runes. In a shamanic initiation, he was hung suspended head down on the World Tree for nine days and nights, pining and fasting. He was almost dead when he received a flash of inspiration: he was able to „take up" the twenty-four runic signs in the shape of branches fallen in a peculiar way[1603]. The runes gave Odin power over all things. Still now archaeologists who discover objects bearing signs of the Danube script, but do not accept the existence of a European Neolithic writing, maintain they have recovered inscriptions in runes. They are convinced that the establishment of parallels between signs from the Balkans with the Scandinavian or Irish runes might sound less shocking.

The Ogham script is connected with secret writing and occult cryptology. It is an ancient alphabet dated to between the III and the VI centuries CE that was utilized in areas of the British Isles unoccupied by the Roman army. The Ogham script consists of twenty characters formed by parallel strokes on either side of, or across, a continuous line. It was originally "a peculiar form of cryptic speech, in which, for instance, the names of letters replaced in certain syllables the letters themselves," representing the entire spoken composition[1604].

The Batak script from Sumatra was mainly used for writing down the *pustaha*, the private and secret notebook that condensates personal knowledge about magic, divination, and disease treatments acquired by a medicine men/priest throughout a long period of training[1605]. The personal memo pad was written in form of short personal notes on appropriate invocations, remedies, rituals, procedures, and auspicious dates. It was furnished with explicative illustrations. The notepad was intelligible only to the person who had originally composed it interpreting the annotations he has taken[1606]. The exclusiveness

[1600] Merlini M. 2009d, p. 23.
[1601] Williams H. 2004.
[1602] Meadows K. 1996, p. 12.
[1603] Buchholz H. G. 1984; Meadows K. 1996, p. 38.
[1604] Diringer D. 1948, p. 525.
[1605] Teygeler R. 1993.
[1606] Sassoon R., Gaur A. 1997, p. 49; Gaur A. 2003, p. 26.

of the knowledge encoded in the private manual increased the power of the medicine man/priest. In times of tribal warfare, the little personal register and the secret knowledge and techniques encoded within it could ensure safe passage to the medicine men/priest through hostile territory[1607]. The Tărtăria tablets also seem to be a register of secret mastery.

Magical invocations and prayers written in Moso script by the Nahki people, a tribe of south-western China speaking a Tibetan dialect, can only be read with the help of a trained priest because they utilize a large range of ideograms supported by a relatively small number of syllabic signs. Only the words considered absolutely necessary are written down, the rest being supplied by the 'reading' by the Nahki priests. It is a hereditary role, because any priest trains his first born from childhood to memorize the stories, the sacred beliefs, the ritual texts and how to interpret the written symbols that express this complex package of information[1608]. With reference to the Moso script, as well as to the Tărtăria mythograms, iconography is part of the script, indeed the script itself.

Kabbalistic literacy is related to religious thought and to magic. According to this approach, the Torah has not to be read simply as a text written in Hebrew script, because another reading, a mystical reading, is able to perceive the sacred book as composed of the secret names of God. Belief in the special significance of Hebrew letters is central to Kabbalistic speculation. Esoteric knowledge can be expressed and communicated by seemingly unintelligible combinations of letters and the use of their numerical value. Letters become icons that have meaning only to a relatively small group of initiates that share and develop a chain of arcane understanding[1609].

Among the Uyangas of Nigeria, members of the Ekpe leopard secret society use a special set of signs, the Nsibidi script, for communication and probably also as a means of magic. As one of Africa's native writing systems, it is made up by signs that are fairly conventional, consisting mainly of bent or straight lines in a number of combinations. Reading and writing the Nsibidi script requires formal training and initiation[1610]. Each grade of Ekpe has its unique signs and written symbols that are known only by initiates. McGregor has indicated the utilization of this writing even to record and circulate within the secret group such events as court cases[1611]. Daryell underlined the employment in the transmission of short stories and folktales that transmit the values of the secret organization[1612]. Nsibidi texts play an important role also in the internal transmission of resolutions and orders. The secret Nsibidi script was in principle used restrictedly by members of the secret society, through some signs were also understood by outsiders[1613]. Now it is not able to keep many secrets. However, still now the Efik people of South West Nigeria use the *ukara*, a dyed fabric covered with motives and Nsibidi script signs, to create a barrier between the normal people and the initiates of the Ekpe secret society, to stimulate the collective Efik identity, and to ritualize authority[1614].

Coming back to the tablets from Tărtăria after comparison with other secret writings, we can maintain that they bear sacred signs utilized in liturgies associable to a complex ritual structure. Even if secreted, signs appear as a notational chronographic system with the synchronicity of writing. Some scholars believe that we are in thepresence of very limited writing technology, because the final aim of the signs was to keep information known only within a restricted religious group. However, neither a widespread diffusion, an unspecialized character, nor a profane nature are key features of a writing system[1615].

These signs were not simply devices for memory support, for retention and communication of a large amount of data exceeding personal memory (as the staffs recording the genealogical history of the Ngati-rangi-toke tribe or North American carved totem poles registering family, clan and tribe history, legend and central events). Milady Tărtăria knew perfectly the beliefs and rituals, and her tablets do not bear so many signs.

The inscribed artifacts are a sort of "private" *summa* created for fixing/transmitting but also for guarding a sacred personal knowledge and related identity acquired on a specific topic, i.e., Milady

[1607] Gaur A. 1997.
[1608] Diringer D. 1948, p. 143–5; Maoji F. 1956; Gaur A. 1984, p. 87, 186.
[1609] Sassoon R., Gaur A. 1997, p. 50.
[1610] Dathorne O. R. 1974, p. 14.
[1611] McGregor J. K. 1909.
[1612] Daryell O. R. 1910, p. 113; 1911: 523.
[1613] Nwosu M. 2010.
[1614] Battestini S. 1991.
[1615] Merlini M. 2009d.

Tărtăria's ritual specialization. They encode magic-religious beliefs and liturgical specialism that founded her identity in life as an esteemed religious practitioner, and her role providing sacramental support for her early agricultural community. The tablets were buried with her as complete items because their signs fix the same obligations and responsibilities, at a higher level as a novel ancestor, relating to the living community.

The tablets and signs show use, but not long and/or heavy. Their ritual use for more than an individual human lifespan has been excluded. The inscribed artifacts have been carefully modeled and incised by the actual messenger. The 'scribe', possibly Milady Tărtăria herself, had the various incisions previously explained and exercised by means of a long period of apprenticeship in magic and religion, as well as literacy and sacred symbolism. Within this framework, the tablets constitute a notepad with strong elements of exclusiveness since the signs were only read and understood with the aid of additional orally supplied information from Milady Tărtăria. They were primarily for the use of just one person (Milady Tărtăria) who incised them in the first place or inherited them through an initiatory process, for her esoteric religious group. On special occasions, they were employed in larger liturgies that might have involved not only initiated disciples, but also mere believers. Devotees were not able to read the signs in absence of an appropriate training, but understood their meaning with her/his help and above all trust in their magic power.

Not only do the signs carry sacred significance, but they are sacred themselves. Their intimate holiness is indicated by their careful and precise shape, in the necessity to deviate the long horizontal register-line on the circular tablet to avoid running into the bow+arrow sign that had to be left intact, and the deposition of the tablets as unique complete items. The tablets have not been deliberately fragmented as Milady Tărtăria's osseous remains and belongings, not because they were a sacred taboo, but because their signs were. It was the complete item constituted by the sequence of signs that was not allowed to be broken. The Tărtăria signs are both notational (to be 'read' as a system) and containers of magic potency. It was the necessity to preserve the tablets as intact items, to transmit the complete textual and symbolic information through the full set of signs, and to not affect the sanctified semiotic matter and its enchantment-enchainment power. Fragmented signs would have lost their effectiveness. It would be not retrieved even if there was the ability to rejoin two fragments to remake a single sign. In conclusion, the absence of fragmentation of tablets is related to the signs and not to the tablets.

This is a further observation that parallels the Tărtăria tablets with other special paraphernalia utilized in the Danube civilization that we found usually as complete items. According to *DatDas* results, there are ritual media (cult tablets-plaques, offering tables, amulets, magic medallions) bearing signs with a double feature: the occurrence of complex sign groups and the presence of signs that are sacred themselves. The situation is different for inscribed vessels with signs that carry religious information, for they are not sacred themselves. Figurines and spindle-whorls follow an intermediate fragmentation pattern. In the instances of vessels, objects have been deliberately fragmented without any care for the integrity of signs. Sometimes, they were broken in particular places because the signs were present at those places. At Turdaș, one-third of all the incised signs were deposited with the shards broken through the incised signs. At Banjica the rate increases up to three-quarters[1616].

If the inscribed signs are meant to serve the special need to encode mystic secrets to be transmitted from individual to individual and from generation to generation, they require several layers of meanings. However, the significations are aligned according to a stratified knowledge and the explanation of every single sign as well as their combination as a system is definite according to the depth of secret knowledge possessed by any interlocutor/ follower of the magical benefactor (Milady Tărtăria). There are not many possible readings of the signs and the texts they compose. Not all of the reading options are in the end correct. Only one is acceptable at its appropriate level of "knowledge of the hidden". The signs have to be read in a proper sequence (that we do not know) and any of them has a precise sense within a stratigraphy of different meanings due to the grade of esoteric knowledge.

One has to search for packages of information connected with a religion with magical significance generated in the early Vinča spiritual substratum. It utilized the mythical code to store and to convey beliefs concerning natural cycles, activators of fertility and fecundity, cycles and stages in cultivation, motions of heavenly bodies, how to protect divinities and peoples, memory and the protective intercession of ancestors, the eternal collectivity of the ancestral dead, totemic lineage, animal spirits,

[1616] Chapman J. C. 2001, p. 228.

and processes of healing. The religion was a system of beliefs characterized by common models of ritual actions that embedded symbols and texts[1617] by which human beings communicated with their culturally defined universe constituted by super-human powers and inter-human arena, mediating also between the individual's conflicting needs for self-expression and self-containment. For ritual action, I mean not only formal rituals performed by consecrated professionals, but also many acts of everyday household life that were imbued by religious-mythical significance and incorporated both utilitarian and symbolic functions.

XE. SOME HINTS TO PENETRATE THE ARCANE CODE

According to the aforementioned function and features of the sign system at Tărtăria, it is significant that all the signs are inserted into a peculiar spatial organization: within eight separated cells on the oblong drilled tablet and within four quadrants originated by a cross-shaped division on the circular tablet. Any sign associated with stratified meanings is an element of a conceptual sequence, and their 'reading' should work as a system.

THE OBLONG DRILLED TABLET AS A MYTHOLOGICAL AND LITURGICAL CHRONOGRAM

Even for the rectangular pierced tablet, a firm point for any decoding attempt is that the succession of graphemes has to be interpreted as an integral unit[1618]. However, it indicates neither a listing of sacrificial offerings[1619], nor a salary in kind as suggested by Hruška. Having in mind the Mesopotamian temple economy, Hruška put the supposed images of a crop, a temple entrance, the number three or even 30, grain, an indefinite numeric sign, a gate, and animals (in part mentioned by Harmatta), in relation to workers' remuneration. He was convinced that the oblong pierced tablet has an economic function and interpreted the representations according to this viewpoint. However, he admitted to having no idea of the meaning that connected the depictions[1620]. It is not a list of foodstuffs such as grain and meat, as maintained by Helck[1621]. The scholar was very disappointed to identify food types not associated with numeric signs and measures as on Mesopotamian recording tablets.

The semiotic entities to be processed on the oblong pierced tablet are the following:

1) Two miniature bucrania or bullhorns, with decorative and symbolic functions that seem to represent heavenly marks (constellations, according to Gheorghe Lazarovici);

2) Three *moonths* (three lunar months), , to indicate an appropriate period correlated to 3) a vegetal motif, . It is a horizontal and stylized sprouting bough from a still unidentified tree from Southeastern Europe that has an evidently sacred nature. It is recognizable as the Tree of Life not in traditional sense (the ascending vital force and the idea of the perpetual evolution rising toward the infinity of the sky), but with gemmating foliage as a key constituent attribute. The vegetal motif seems to express the potentiality of the sprouting of nature at the end of winter, connected to a period of three lunar months. (It is definitely not an ear of a cereal, nor a fir tree).

Three *moonths* and budding ramiform signs are both correlated to 4) a more developed bough (it is not sprouting but blooming) depicted according to the same archaic graphic symbolism of the sacred tree, . The correlation among elements 2), 3) and 4) seems to indicate the transit from two different seasonal periods (winter and spring? spring and summer?). According to the first option, supported by our symbolic review, the signs on the tablet might be metaphoric of the notion of new life and regenerative growth after the cold and deathlike season. They also point to early spring rituals aimed to anticipate and solicit the transition to the spring light and related renewal.

The compound sign 5) is comprised of the letter-like sign *y* (an important and widespread abstract root-sign of the Danube script) accompanied and modified by a stroke with the function of a diacritical auxiliary marker, . These are included within the same metope to express a concept (a word? a phrase?) that is intelligible to us.

[1617] Victor Turner even considered the rituals as aggregations of symbols 1975, p. 59.
[1618] Harmatta J. 1966.
[1619] Harmatta J. 1966: 235–6.
[1620] Hruška B. 1987.
[1621] Helck W. 1979.

The subsequent semiotic element 6) is an eight-like sign or an unsqueezed hourglass-like form,  . It is a fundamental sign on the tablet because it is replicated a second time on the far right. Among the different opinions concerning the possible meaning of this sign, I support the interpretation of a cup for collecting sacred liquid. Its shape recalls the fragmented high-pedestal bowl discovered in the ritual pit-grave. However, graphic parallels with hourglass drums are also evocative.

The semiotic element 7) might be interpreted either as a vegetal motif or an astral symbol (the sun or the divinity of the sun),  . I maintain the recognition of an archetypical tree, because it looks as though it belongs to the same species of the two boughs. I have in mind two meanings that are not mutually exclusive. The first is the concept of full blossoming, complete development, becoming mature (subsequent to the gemmating and blooming boughs). The second is the notion of the holy two-fold tree characterized by crown / roots, ascending energies / descending energies, broad and visible development of life / invisible source of life, growth / nourishment, celestial comprehension / earthly knowledge, everyday understanding / arcane wisdom, male principle / female principle, and male divinity / female divinity. The archetypical origin of the Tree of Life and Death that splits and joints at the same time profane and sacred spheres seems to have a deep foundation in the Neolithic culture of the Danube civilization.

The semiotic element 8) is a frontal bucranium,  , to represent not a divinity identifier, but an animal sacrificed in liturgies. Finally, the compound element 9) indicates a libation,  . A vase is pouring the sacred blood of the sacrificed bull into a cup for worship (the severed bull head is depicted in the previous cell). The liquid will be poured onto or into the ground, feeding the Earth and the ancestral dead.

The structure of the semiotic elements incised on the tablet resembles the description of a myth as the foundation of a series of rituals. The myth involves the super-human forces behind the vegetal growth. The sacrifice, intended as an offering to super-human forces in order to trigger the vegetal growth, is the architrave of the tablet. It is represented by the couple of sacrificial cups that individuate two kind of sacrifice. The first is connected with the vegetal motifs. The second is an animal sacrifice. The left area of the tablet is dominated by the vegetal sphere, the right area by the animal world.

The complex set of signs is logically organized on the tablet in order to define the temporal sequence of mythical and factual events and related liturgies. Structurally, it looks like it is composed of calendar graphemes as noticed by Golan[1622]. The story of keeping and measuring time goes along with the account of the devices created for this purpose. Since the Neolithic, the dependence of farmers on natural phenomena and the annual cycle of the seasons made vital the clear and reliable fixation on the repeating rhythm of seasonal changes. Of no less significance was the ability to predict the approach of each season with accuracy. Several studies have evidenced the presence of the abstract "time-factored" notations and their utilization in Southeastern Europe, both for daily life and worship within the Neolithic and Copper Age framework[1623].

The oblong drilled tablet from Tărtăria is not a device for keeping and measuring time. Within a framework of calendrical accumulated notions, it is possibly a graphical recording of some appropriate seasonal rituals. It is a mythological and liturgical chronogram. The productivity of harvest in the coming year depended upon the exactness and sensitivity of the scheduled rituals. It might be productive to read the signs according to a sequence of constellations which appeared in the sky at the fixed the proper moment for rituals and sacrifices. In the first cup, Orion can be recognized. The bull's head recalls the constellation Taurus. And so on. As I have already maintained, the combination of signs on the tablets compose a multistate meaning according to the esoteric knowledge of the person in charge.

The formulae on the circular tablet

The rounded tablet employs a different layout, aligning neatly marked signs along a horizontal row and inserting them within quadrants. The interpretations of the meaning of the depicted signs have been very different so far. Some are bloody, other votive. Some discern the toolkit of an astronomer, other prayer formulas. Up to now, I have collected fifty-eight interpretations of this inscribed find. Despite the efforts of a procession of decipherers, the tablet is still waiting for someone to understand the message it contains.

[1622] Golan A. 2003, p. 270.
[1623] Merlini M. 2009d.

Starting from the lower register, which displays the exoteric message, the semiotic entities to be processed are the following: We start with 1) a stylized bow+arrow sign,  , that is connected with 2) two flaying arrows represented in abstract style,  . At Tărtăria, the semiotic context excludes the bow and fired off arrows as a weapon. They are represented within a ritual context. The signs depict the dynamic, magical moment/action in which the arrows are shot. Information is transmitted, creation is in action, and the charm is taken off. In prehistoric art, the bow is often described as an enchantment tool in the form of musical bow and the shot off arrows are sounds. *The magical* musical bow *was initially utilized to* enthral the pray or to evocate its spirit in hunting magic. *As the* Piper *from Hamelin, mistresses of animals in the form of musical bow players attracted animals by witchcraft and handed them over to the hunters as a form of sacrifice. Then the utilization of the musical bow was extended* to trigger supernatural forces providing fruitful harvest, land fertility, cattle fecundity and well-being of the community. It is possibly the case recognizable at Tărtăria. However, despite the clearly illustrated creative act of will, enchantment, and perhaps enchainment trough an arrow/spark shot off, we ignore the intimate nature of this act, who shot the two arrows, and what is the target. We only know that the two arrows are inflexibly pursuing the target. Is it the item/person 3), individuated by a very mysterious double-bar cross,  ?

The lower right quadrant associates two graphemes: 4) the sacrifice of fire, indicated by three tongues of fire in the form of three columns that are flaming on a dedicated altar,  ; and 5) a compound anthropomorphic figure,  . The moment is fixed when the sacrificial fire achieves the task by being the carrier of human prayers up to the sky by its flames. Eventually, on the right side of the altar where offerings are presented and burnt, a diagrammatic representation of the worshipped divinity is depicted. It has as a central feature the combination of a terrestrial body and a celestial body in order to couple the two generative principles of Earth and Sky.

The sacrificial action, in its different forms, is a central issue on the Tărtăria tablets. It is the magic/divine action that establishes a creative communication between human beings and the divine. When during rituals the oblong tablet was superimposed to the circular tablet, the *libatio* on the right side of it was complementary to the sacrifice of fire depicted below.

The first part of the esoteric message on the disc-shaped tablet, depicted on its upper left quadrant, is very obscure to me. It includes 6) an abstract non-figurative sign that is misunderstood as a chair/throne by several scholars,  ; and 7) a rounded D-shape with a tail,  . Semiotic investigation indicates that in many instances the is the first sign of an inscription. It is the incipit that introduces a message. If one recognized the rounded D-shape with a tail as the abstract concept of the Moon (the divinity of the Moon?), the might indicate the determinative for the divinity or an attribute of it. It might also be an auspicious sign or an invocation. But these suggestions are speculative.

On the upper right quadrant, the combination of 8)  , 9)  , 10) , 11) O, and 12) encodes a synchronizing symbolism between the phases of the Moon and human reproduction. The magic-functional concept is to maximize the probability of fecundation. The lunar cycle is consistent with women's period from menstruation to ovulation, thus they have to tune it with the lunar month and phases. The Full Moon is the crucial moment for both the synodic cycle and the women's cycle, being the trigger of the reproductive process.

The lower register of the tablet conveys an overt information concerning rituals. The upper register indicates spiritual arcane notions. The knowledge encoded on the left quadrant is still obscure, but not any more than the formula on the right quadrant.

CHAPTER XI
ARCHAEOZOOLOGICAL STUDY OF THE PREHISTORIC SETTLEMENT OF TĂRTĂRIA

DIANA BINDEA

The animal remains discovered during the archaeological excavations in Tărtăria (Alba County) led by Nicolae Vlassa in 1961, in the place called *Groapa Luncii* sum up to 529 animal remains[1624], distributed on various habitation levels (fig. XI.1; fig. II.19a): Vinča[1625] (phases A and B), Petrești, and Coțofeni.

	Vinča A phase				Vinča B phase				Petrești culture				Coțofeni culture			
	NR	%	MNI	%	NR	%	MNI	%	NR	%	MNI	%	NR	%	MNI	%
Bos taurus	86	85.14	8	53.33	107	76.42	9	50	94	63.94	7	30.43	49	53.84	4	28.57
Ovis aries / Capra hircus	3	2.97	3	20	9	6.42	2	11.11	14	9.52	4	17.39	11	12.08	2	14.28
Sus scrofa domesticus	2	1.98	1	6.66	8	5.71	1	5.55	13	8.84	4	17.39	16	17.58	2	14.28
Canis familiaris	0	0	0	0	2	1.42	1	5.55	0	0	0	0	1	1.09	1	7.14
Total no. of domestic mammal remains	91	90.1	12	80	126	90	13	72.22	121	82.31	15	65.22	77	84.62	9	64.29
Cervus elaphus	7	6.93	1	6.66	7	5	2	11.11	12	8.16	2	8.69	8	8.79	1	7.14
Capreolus capreolus	1	0.99	1	6.66	4	2.85	1	5.55	2	1.36	1	4.34	1	1.09	1	7.14
Bos primigenius	2	1.98	1	6.66	2	1.42	1	5.55	3	2.04	1	4.34	0	0	0	0
Sus scrofa ferus	0	0	0	0	0	0	0	0	6	4.08	2	8.69	3	3.29	1	7.14
Lepus europaeus	0	0	0	0	1	0.71	1	5.55	1	0.68	1	4.34	1	1.09	1	7.14
Martes martes	0	0	0	0	0	0	0	0	2	1.36	1	4.34	0	0	0	0
Felis sylvestris	0	0	0	0	0	0	0	0	0	0	0	0	1	109	1	7.14
Total no. of wild mammal remains	10	9.9	3	20	14	10	5	27.78	26	17.69	8	34.78	14	15.38	5	35.71
Total no. of mammal remains	101	100	15	100	140	100	18	100	147	100	23	100	91	100	14	100
Pisces	1				1				0				0			
Unio sp.	3				5				13				11			
Ribs	7				2				6				1			
TOTAL	**112**				**148**				**166**				**103**			

Fig. XI. 1. Table with species frequency (%) in the settlement ofTărtăria.

NR – number of remains, MNI – minimum number of individuals

I. DISTRIBUTION OF ANIMAL REMAINS ACCORDING TO SPECIES AND CULTURES

1. VINČA CULTURE PHASE A

112 animal remains have been recovered from the Vinča A phase stratum, among which 108 belong to mammals, mostly domestic ones (90.1%). Cattle are clearly the most frequent (85.14%). The percentage of sheep/goats is small (2.97%) and so is that of domestic swine (1.98%). As for the age when these animals were slaughtered, the situation is the following: among the cattle (8 individuals), two were under 1 year old (one up to 6 months), one of 16 – 17 months, one of 2 – 2½ years, two of 3 – 3½ years, one of 3½ – 4 years, and one older than 4 years; among the sheep/goats – 3 individuals – two were less than 1 year old and one ca. 1½ – 2 years old; for pigs – 1 individual – it was slaughtered at ca. 1 year of age (6 – 12 months).A single

[1624] Bindea Diana 2008a.

[1625] We thank PhD. Gheorghe Lazarovici for providing these data and the stratigraphy (fig. 1) in which, according to the latest research, the culture stratum labeled Starčevo-Criș is stratum Vinča A and the stratum labeled Vinča is Vinča B.

individual belongs to each category of wild species (red deer, aurochs, and roe deer); the red deer was 1½–2 years at the time of its hunting, the others were adults. There was also one fish fragment, a piece of a pike's mandible (*Esox lucius*), and 3 shell valves representing the category of bivalve animals.

Firing traces can be noted on two cattle bone fragments (mandible and metacarpus), while another unidentified fragment shows cut marks.

2. Vinča culture phase B – C – Turdaș

The animal remains recovered from the Vinča B phase stratum belong to mammals, fish, and mollusk, adding up to 148 fragments.

As in the case of the previously discussed stratum, domestic cattle prevail (76.42%), while caprovines and domestic pigs are much less frequent (6.42% and 5.71% respectively). Few remains belong to dogs (1.42%). The nine individuals belong to the cattle group were slaughtered at the following ages: one under 6 months, one between 7 and 9 months, one between 8 and 13 months, three between 12 and 21 months, one between 3 and 3½ years, one around 4, and one over 4½ years. Two individuals belong to the caprovine group and they were killed when they were over 2 years old (one ca. 25–26 months). Among the two, one was a female. Among pigs, only one individual was slaughtered under the age of 1.

Wild species are mainly represented by cervids: red deer (5%) and roe deer (2.85%). Few fragments also belong to aurochs and hares. It has been estimated that two individuals (one under 1 year and the second over 2½ years) were red deer, while for the other wild species mentioned there was one adult individual of each. One vertebra belongs to a relatively large teleostean fish (carp or sheat-fish; vertebral body – height = 33, width = 29.5), and 5 valves belong to bivalve animals.

3. Petrești culture

The quantity of shell fish increases in the Petrești culture stratum (13 fragments). Besides these, 153 mammal fragments have been discovered; the percentage of domestic mammals is slightly lower than in the previous level (82.31%). The frequencies of domestic species are the following: 63.94% cattle, 9.52% sheep and goats, and 8.84% pigs. They were slaughtered at the following ages: cattle, 7 individuals, one under 7 months, one between 16 and 17 months, one ca. 2 years, one ca. 2½, two individuals between 3½ and 4 years, and one over 4 years; for caprovins, it has been estimated that there was one sheep of ca. 3½ years, 2 fragments belonging to a goat less than 1½ years old, two goats of ca. 5 and 21–24 months; for pigs, 4 individuals were slaughtered under the age of 1, between 21 and 23 months, between 23 and 25 months (the male individual), and between 3½ and 4 years.Among the wild mammals there were 2 red deer, one under 3, the other over 4, 2 wild boars, one between 1 and 1½ years and another over 3½. Species reaching lesser proportions are the aurochs, 3 fragments from an individual older than 4 years, roe deer, 2 fragments from an individual older than 3½, marten, 2 almost entirely preserved mandibles from an adult, and hare, one fragment belonging to a young animal.

Traces of firing have been noted on a metatarsus fragment belonging to a *Bos taurus.*

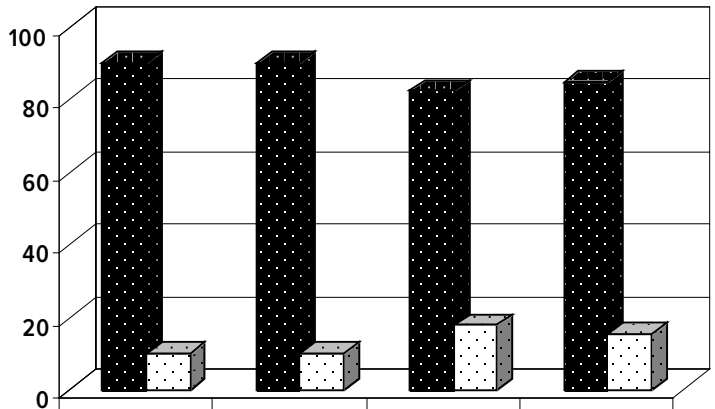
4. Coțofeni culture

103 animal remains have been determined from the Coțofeni culture stratum[1626]. Among the domestic mammals (84.62%) cattle are the most numerous (53.84%), then pigs (17.58%), sheep/goats (12.08%), and dogs.

The minimum number of estimated individuals and the age when they were slaughtered are the following: cattle, one 7–9 months old individual, one between 16 and 17 months, one of 2–2½ years, and one older than 4; pigs, 2 individuals, one a female killed under the age of 1 year, the other older than 1 but it is not certain how much older; caprovines (3 fragments belonging to the genus *Ovis*), 2 individuals, one slaughtered under 10 months, the second at ca. 25–26 months. One bone fragment belongs to a dog.

Wild mammals are especially represented by red deer (8.79%), probably a single individual hunted at between 12 and 18 months. Three fragments belong to a male wild pig. The other wild mammals are only represented by one bone fragment each: *Capreolus capreolus* (one individual under 20 months), *Lepus europaeus,* and *Felis silvestris*. Non-vertebrate remains include 11 shell fragments (see Anex A down).

[1626] Bindea Diana 2005, p. 58–59.



	Vinča A	Vinča B	Petrești	Coțofeni
domestic species	90,1	90	82,3	84,6
wild species	9,9	10	17,7	15,4

Fig. XI.2. Proportion between domestic and wild mammals (%).

II. DESCRIPTION OF THE SPECIES

The proportion between domestic and wild mammals (fig. XI.2) clearly attests the fact that the inhabitants of the site in Tărtăria used domestic animals as main source of meat; such animals represent over 90% of all mammals during the Neolithic, while during the Eneolithic and the transition period to the Bronze Age, their percentage slowly decreases.

1. Bos taurus (cattle)

This is the main group exploited by the populations inhabiting Tărtăria (fig. XI.3). During the Vinča A phase, cattle are the most frequent, over 80%, just as on the Early Neolithic sites in Locusteni[1627] and Glăvăneștii Vechi[1628]. Through the especially high proportion of domestic cattle in the Vinča B culture stratum (76.4%), Tărtăria clearly differs from other Vinča sites in Banat such as Foeni[1629], Gornea – *Căunița de Sus*[1630], and Liubcova – *Ornița*[1631]. During the periods subsequent to the Neolithic, cattle significantly declined in numbers, reaching 63.9% during the Eneolithic and 53.8% during the Coțofeni culture.

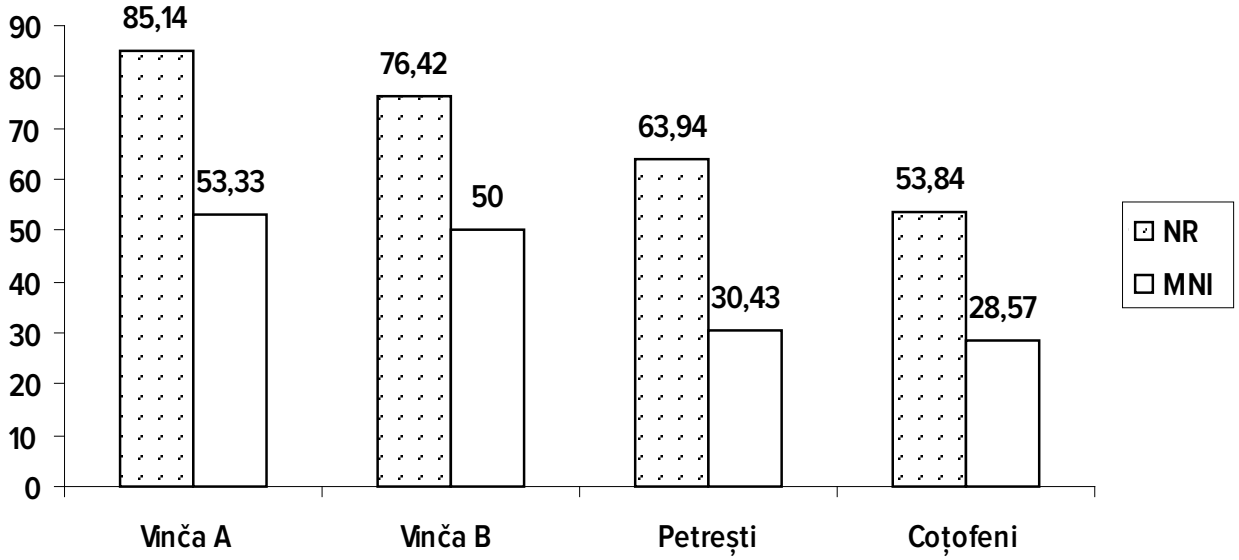


Fig. XI.3. Frequency of cattle (%).

Two corneal processes have been discovered in the Early Neolithic stratum, one also preserving a small portion of the frontal. The first horn measures 208 mm in circumference at the base and its flattening index is of 79.54. The difference between the large diameter at the base and that measured 5 cm from the base is of 3.8 mm. We attribute this horn to a female and place it in the "primigenius" morphological type. The second horn, with a base circumference of 155 mm and a flattening index of

[1627] Bolomey Alexandra 1986, p. 143.
[1628] Necrasov Olga 1964, p. 169.
[1629] El Susi Georgeta 1998a, p. 140.
[1630] El Susi Georgeta 1987, p. 45.
[1631] El Susi Georgeta 1991, p. 16; 1998b, p. 85.

6.1 cm, has been attributed to a male individual (the difference, at 5 cm from the base, is of 6.1 mm) and placed in the "brachyceros" type. Both horns are broken towards the tip and are oval in section at the base.

One cattle metacarpus has been recovered from the Coțofeni culture stratum in Tărtăria, probably belonging to a female measuring 118.7 cm in height.

As for the age when large cattle have been slaughtered (fig. XI.4), one notes the predominance of 3–4 years-old individuals during the Early Neolithic, but also that of calves under 1 year of age; young individuals, under 2 years, were mostly slaughtered during the Developed Neolithic; animals were killed at 1–2 and 3–4 years old during the Eneolithic, while during the transition period to the Bronze Age one finds a relatively balanced distribution, lacking individuals killed between 3 and 4 years of age.

2. Ovis aries / Capra hircus (sheep / goat)

Caprovines come second, after cattle, with the exception of the Coțofeni culture stratum, when bovines bulls are followed by pigs and sheep/goats come third. The percentage of small horned animals, according to the number of fragments, was very low (under 5%) during the Early Neolithic (fig. XI.5), but increased constantly during the Neolithic and Eneolithic, reaching the highest peak, of 12%, during the Coțofeni culture. Research attests the significant economical differences between the various Coțofeni communities.

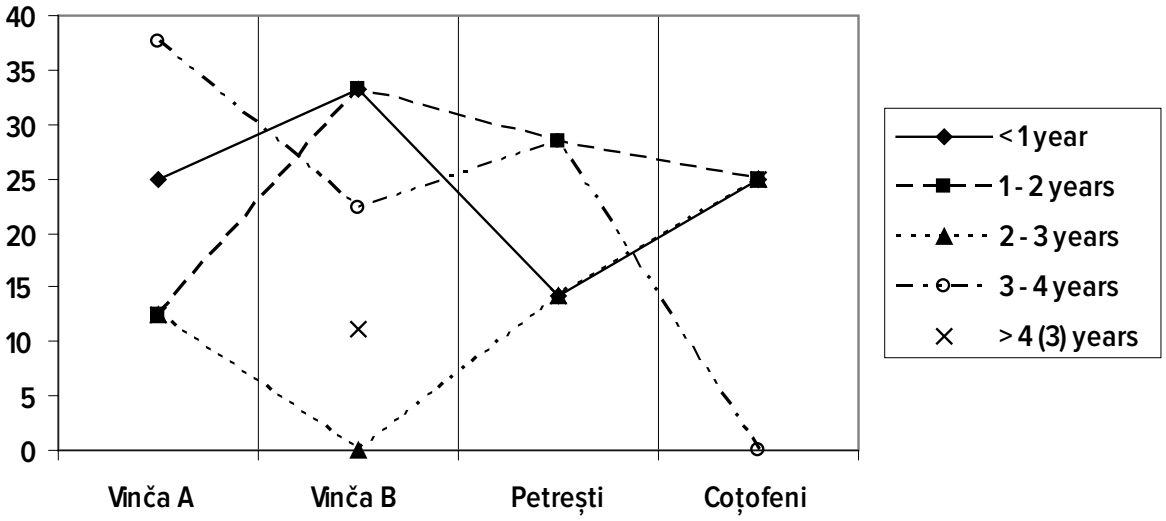


Fig. XI.4. Age when cattle were slaughtered.

Thus, domestic cattle were the main animals grown in a number of settlements, while sheep/goats held prevalence in others. The settlement in Tărtăria can be included in the first category, just as other Transylvanian sites such as Şincai[1632], Ghida[1633], and Cicău[1634], where cattle held economic prevalence, with proportions between 50 and 55%, followed either by caprovines (Şincai), or pigs (Tărtăria). By contrast, the main occupation was growing small-size horned animals in a number of other Transylvanian sites. Thus, in Transylvania, caprovines reached a percentage of 74.3% at Livezile[1635], over 60% at Țebea and Boiu[1636] (and 54% at Poiana Ampoiului[1637]). Despite the fact that in Tărtăria small-size horned animals did not rich such elevated a percentage, one must nevertheless note the importance of growing them in the economy of the local population.

One notes the preponderance of sheep in Tărtăria; no remains of goats have been identified in the Vinča B and Coțofeni culture, but this does not mean they were never present. In the Petrești culture, the number of goat remains surpasses that of sheep. Metrical data could not offer information on the size of caprovines.

[1632] Bindea Diana 2005, p. 57–58.
[1633] Haimovici S. 1994, p. 404.
[1634] Georoceanu P., Lisovschi-Chelășanu C., Georoceanu M. 1978, p. 276.
[1635] Becker Cornelia 2000, p. 75.
[1636] Andrițoiu I. 1992, p. 132.
[1637] Becker Cornelia 2000, p. 70.

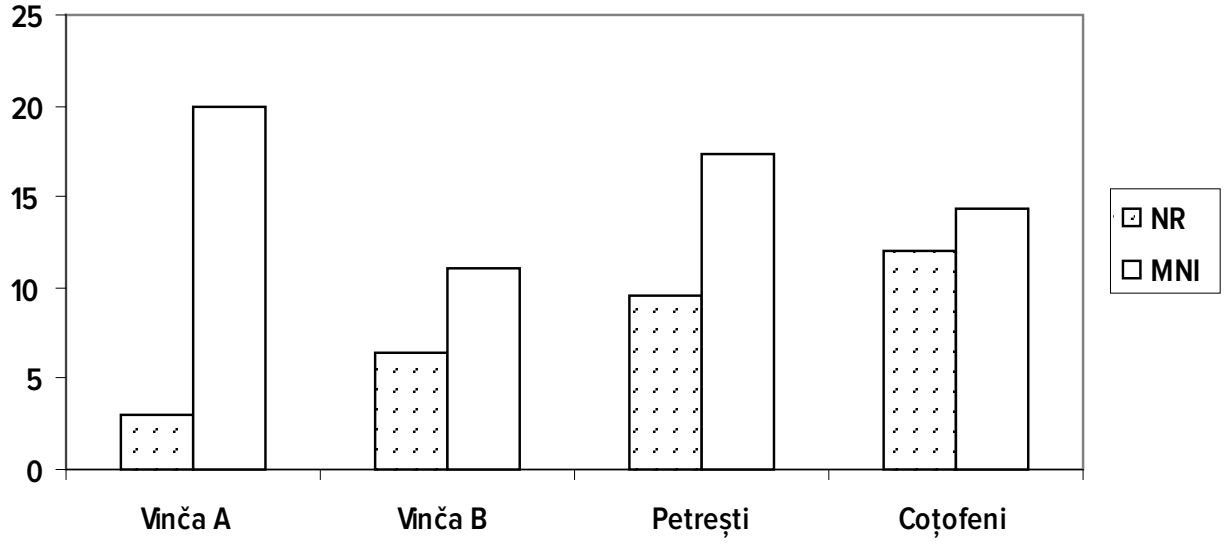


Fig. XI.5. Frequency of caprovines (%).

The age when sheep and goats were slaughtered (fig. XI.6) indicates that individuals under 1 were preferred during the Early Neolithic, those between 2 and 3 years old during the Developed Neolithic; during the Eneolithic the distribution was relatively balanced, with the only absence of individuals between 2 and 3 years of age, and during the Coțofeni culture, the individuals were equally slaughtered under 1 year and between 2 and 3.

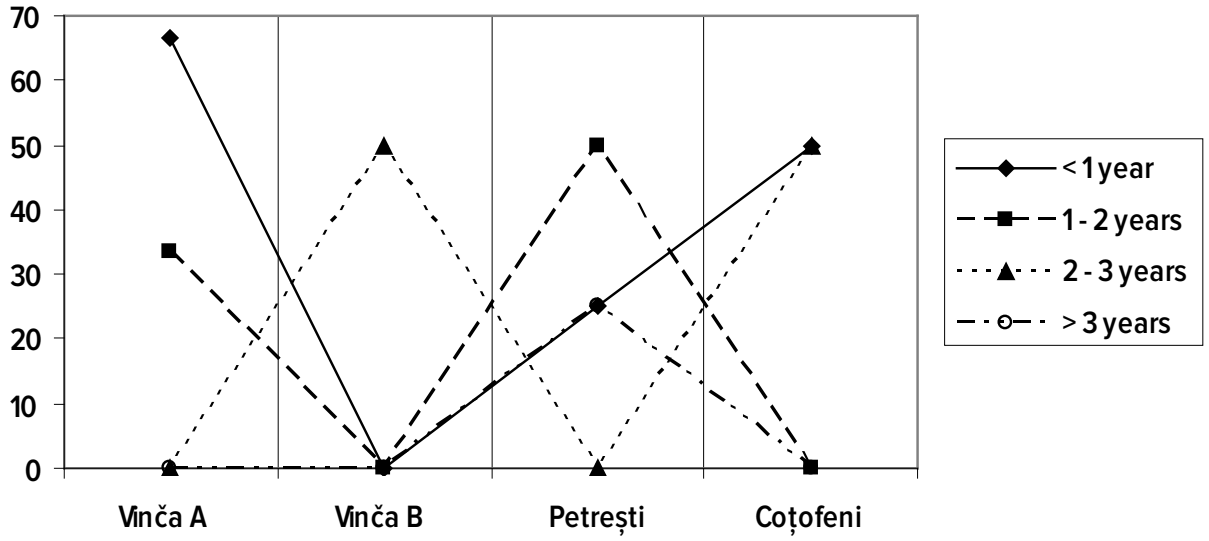


Fig. XI.6. Age when caprovines were slaughtered.

3. Sus scrofa domesticus (pig)

The percentage of domestic pig remains is small during the Neolithic, fewer than 2% in Vinča A phase and 5.7% in Vinča B culture (fig. XI.7). Besides, the little importance of domestic pigs in the diet is typical to Neolithic sites. These populations did not include pigs among the constantly grown species. In Transylvania, their proportion only raises above 15% on a few sites such as Leț[1638] and Iernut[1639], similar to the case of settlements in Banat – Moldova Veche – *Rât*[1640] and Moldavia – *Balș*[1641]. They are absent

[1638] Bindea Diana 2008b, p. 200–201, 204, 208.
[1639] Vlassa N. 1976, p. 111.
[1640] El Susi Georgeta 1985–1986, p. 42.
[1641] Necrasov Olga, Ştirbu Maria 1980, p. 20.

from numerous other settlements. During the later periods, the exploitation of domestic pigs became more important, reaching almost 18% in Tărtăria during the Coțofeni culture.

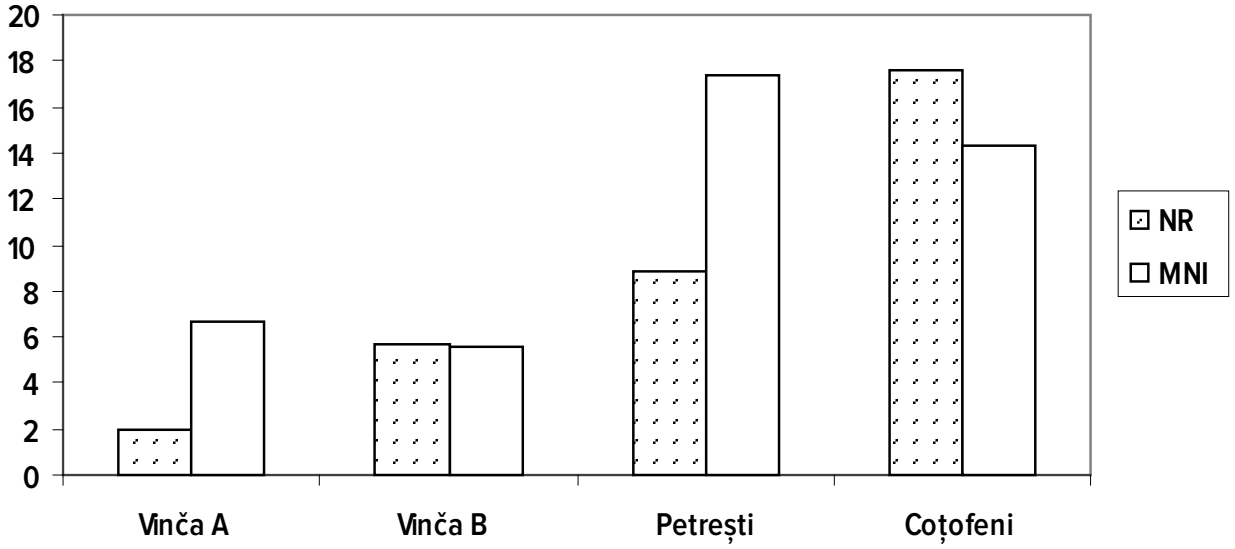


Fig. XI.7. Frequency of pigs (%).

The discovery of a single entirely preserved metatarsus III, from the Petrești culture stratum, measuring 79.5 mm in length permitted, for swine, the estimation of a single individual's size, of 74.81 cm.

The distribution according to age groups of the slaughtered swine (fig. XI.8) indicates the fact that in Tărtăria, in Vinča culture (A and B), all estimated individuals were killed under 1 year of age, in Petrești culture all age groups were equally represented, while in the Coțofeni culture, half of the individuals were killed younger than 1, and the other half at maturity.

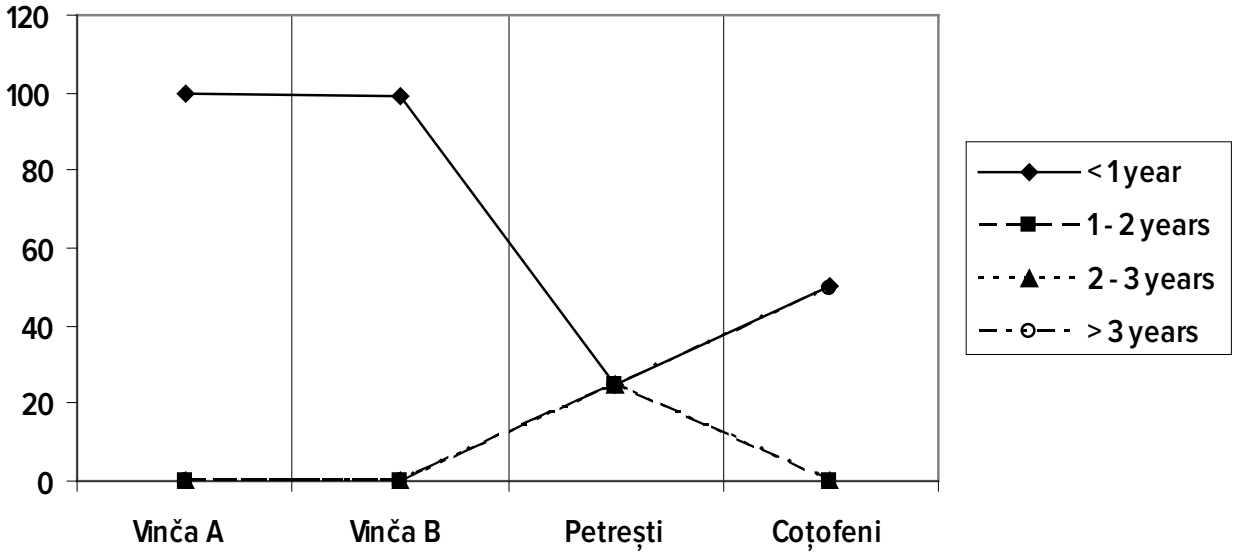


Fig. XI.8. Age when pigs were slaughtered.

4. Wild species

Wild mammals are rather poorly represented in Tărtăria, varying between ca. 10% during the Neolithic and ca. 17% during the Eneolithic; in the Coțofeni culture their frequency reaches 15.4%. Cervids have been identified in all culture levels of the site in Tărtăria. Red deer was the main hunted species, with a percentage between 5–9%, while the occurrence of roe deer is scarce, reaching just 1–2%. The circumference above the rosette of an antler fragment (Vinča culture phase B) was of 52 mm.

The proportion of aurochs remains, absent in the Coțofeni culture stratum, is of 1.5–2%. Despite the fact that no remains of wild pigs have been identified for the Early and Middle Neolithic, later on they reached a second position among wild animals, with percentages of 4.08% in the Petrești culture and 3.29% in the Coțofeni culture. The only estimation of the size of wild animals has been possible for a wild pig, on the basis of a metacarpus IV recovered from the Coțofeni culture stratum. The value of 101.93 cm makes us believe that the individual was male.

Other species identified among the archaeozoological samples from Tărtăria are: hare, marten, and wild cat. There are 3 fragments belonging to three hares: one mandible fragment (Vinča culture phase B), one humerus fragment (Petrești culture), and one femur (Coțofeni culture). Two mandible remains have been attributed to martens. These bones have been found in the Petrești culture stratum. Despite the slight metrical differences between the two items, they most probably belonged to the same individual. The length of M1 is of 10.7 and 11 mm, the length of the molars (M1–M2) is of 14, and 14.6 mm, and the length of the jugal teeth, that are most different on the two items, is of 31.5 and 33.4 cm respectively. An almost entirely preserved mandible belongs to a wild cat whose jugal teeth measure 21.2 mm in length, while M1 is 8 mm long. The latter item was discovered in the Coțofeni culture stratum in Tărtăria.

There are two fish remains, discovered in the Vinča A phase stratum – one mandible belonging to an *Esox lucius* (pike) and Vinča B phase – one vertebra belonging to a *Cyprinus carpio* (carp) or a *Silurus glanis* (sheat fish). Non-vertebrates are represented by 32 valve fragments of *Unio sp.* discovered in all culture strata.

III. Development of animal species exploitation

1. Vinča culture phase A

The Starčevo-Criș settlement is to be included in the group of sites where the economy was based on cattle growing, a primordial activity on almost all Transylvanian sites. In Tărtăria one notes the highest proportion of large horned animals in Transylvania, over 80%, just like during the Early Neolithic in Locusteni[1642] and Glăvănești Vechi[1643]. The proportion of sheep/goats is small on these sites, of under 10%.

Domestic pigs are poorly represented (1.98%). It is known that pigs were not among the species constantly grown during the Early Neolithic. Such remains are absent from numerous settlements, such as: in Transylvania, at Tășnad and Turia[1644], in Oltenia, at Locusteni[1645] and Cârcea – *La Hanuri*[1646], in Moldova, at Trestiana[1647], in Hungary, at Hódmezövásárhely – Bodzáspart[1648], in Serbia, at Nosa[1649] or in Bulgaria, at Sofia-Slatina[1650].

2. Vinča culture phase B

Through its especially high proportion of domestic cattle, Tărtăria markedly differs from other Vinča sites in Banat, such as Foeni[1651], Gornea – *Căunița de Sus*[1652] and Liubcova – *Ornița*[1653], where hunting was much more important an activity for procuring the necessary meat. In Tărtăria wild mammals only represent 10% of all mammals, while on other Vinča settlements their frequency is much higher, between 25 and 50%. But among domestic mammals, the preponderance of cattle against sheep, goats, and pigs is common to all Vinča settlements mentioned above, as well as to those belonging to the same culture but located south of the Danube: Lepenski-Vir, Divostin, Obre and Boljevci, sites where, compared to a total of 100% domestic mammals, cattle surpass 60%[1654].

1642 Bolomey Alexandra 1986, p. 143.
1643 Necrasov Olga 1964, p. 169.
1644 Haimovici S. 1992, p. 260.
1645 Bolomey Alexandra 1986, p. 143.
1646 Bolomey Alexandra 1976, p. 466.
1647 Necrasov Olga, Știrbu Maria 1980, p. 27.
1648 Bökönyi S. 1954, p. 9.
1649 Bökönyi S. 1984, p. 30.
1650 Bökönyi S. 1992, p. 245.
1651 El Susi Georgeta 1998a, p. 140.
1652 El Susi Georgeta 1987, p. 45.
1653 El Susi Georgeta 1991, p. 16; 1998b, p. 85.
1654 Clason A. T. 1991, p. 209.

3. Petrești culture

In the Petrești settlement in Tărtăria, the economic model resembles that of the contemporary site in Zau de Câmpie, but on the first the frequency of cattle is lower, of 63.9%, while that of wild species is higher; the frequency of caprovines and swine is low, under 10%. Among the Eneolithic settlements with an economy mainly focused on growing domestic cattle (with frequencies of over 60%) and only secondarily interested in growing sheep, goats, and pigs, one can also mention the Cucuteni sites in Târpești[1655], Mitoc – *Valea lui Stan*[1656] and Cucuteni – *Cetățuia*[1657], the site in Gumelnița[1658]; one can also add the Bodrogkeresztúr settlement in Tarnabod, Hungary[1659]. On these sites, the frequency of caprovines is low, while that of pigs is only a little higher, reaching over 10% in Târpești and Tarnabod.

4. Coțofeni culture

In Transylvania, at Tărtăria, Şincai, Ghida[1660], and Cicău[1661], cattle held economical preponderance, varying between 50–55%, followed either by caprovines (Şincai) or pigs (Tărtăria). A similar economic model, with a focus on cattle, can be encountered on other sites more or less contemporary to the Coțofeni culture but belonging to the transition period between Eneolithic and the Bronze Age: on the territory of present-day Hungary, part of the Pécel – Fertörákos culture[1662], the only site where cattle remains reach a percentage as high as 71.4% and Békásmegyer-Buváti[1663], settlements in Moldavia belonging to the Horodiștea–Erbiceni–Cârniceni culture (i. e. Cârniceni[1664], and Horodiștea[1665] sites), Foltești – Stoicani – type settlements[1666], Coțofeni settlements in Banat, Moldova Veche – *Ostrov*[1667], Bocșa – *Colțan*[1668] or in Bulgaria – Niš, Bubanj-Hum[1669].

IV. Bone processing

Sever Rus discovered at Tărtăria seven bone fragments processed or showing traces of processing that were acquired by the National History Museum of Transylvania. Unfortunately, there remains cannot be ascribed to any specific material culture and most of them have not been specifically determined:

- P 118467 – tool made from a deer antler fragment, ca. 142 mm in length, with the inner tissue carved out both at the basis and the tip;
- P 118468 – tool made from a bone fragment, strongly polished on both sides and margins;
- P 118469 – piercing tool made of an undetermined bone fragment, polished;
- P 118470 – fragment of a fragmentarily preserved piercing tool with polished margins;
- P 118471 – piercing tool made of an undetermined bone fragment, possibly a diaphysis wall of a long bone from a small-medium size animal;
- P 118472 – piercing tool made of an sheep or goat metapode (distal fragment); ca 1/3 of the diaphysis wall has been preserved; polished (distal front-rear diameter = 11 mm);
- P 118473 – piercing tool made of a longitudinal rib fragment, ca. 138.2 mm, from a large-size animal.

V. Mammal groups according to an ecological perspective

The graphic presentation (fig. XI.9) showing wild mammals according to the biotype they inhabit, indicates the preponderance of "forest" animals (deer, wild pig, marten, wild cat), followed by "forest skirt" animals (aurochus, roebuck), while "steppe" species (hare) occupy the last position. There were no aquatic species.

[1655] Necrasov Olga, Ştirbu Maria 1966, p. 1306–1307; 1981, p. 183.
[1656] Haimovici S. 1986, p. 78.
[1657] Haimovici S. 1969, p. 318.
[1658] Necrasov O., Haimovici S. 1966, p. 103, table II.
[1659] Bökönyi S. 1959, p. 60.
[1660] Haimovici S. 1994, p. 404.
[1661] Georoceanu P., Lisovschi-Chelășanu C., Georoceanu M. 1978, p. 276.
[1662] Bökönyi S. 1974, p. 415.
[1663] Bökönyi S. 1974, p. 345.
[1664] Hrișcu Carmen 1995 p. 79; Hrișcu Carmen, Haimovici S. 1997, p. 643.
[1665] Haimovici S., Popescu C. 1978, p. 117; Haimovici S. 1979, p. 15.
[1666] Haimovici S. 1974, p. 100; 1979, p. 14.
[1667] El Susi Georgeta 1996, p. 242.
[1668] El Susi Georgeta 1983, p. 860.
[1669] Bökönyi S. 1989–1990, p. 89.

Therefore, during Prehistory, the settlement in Tărtăria was surrounded by large thick forests, with clear areas, but also by wide open areas.

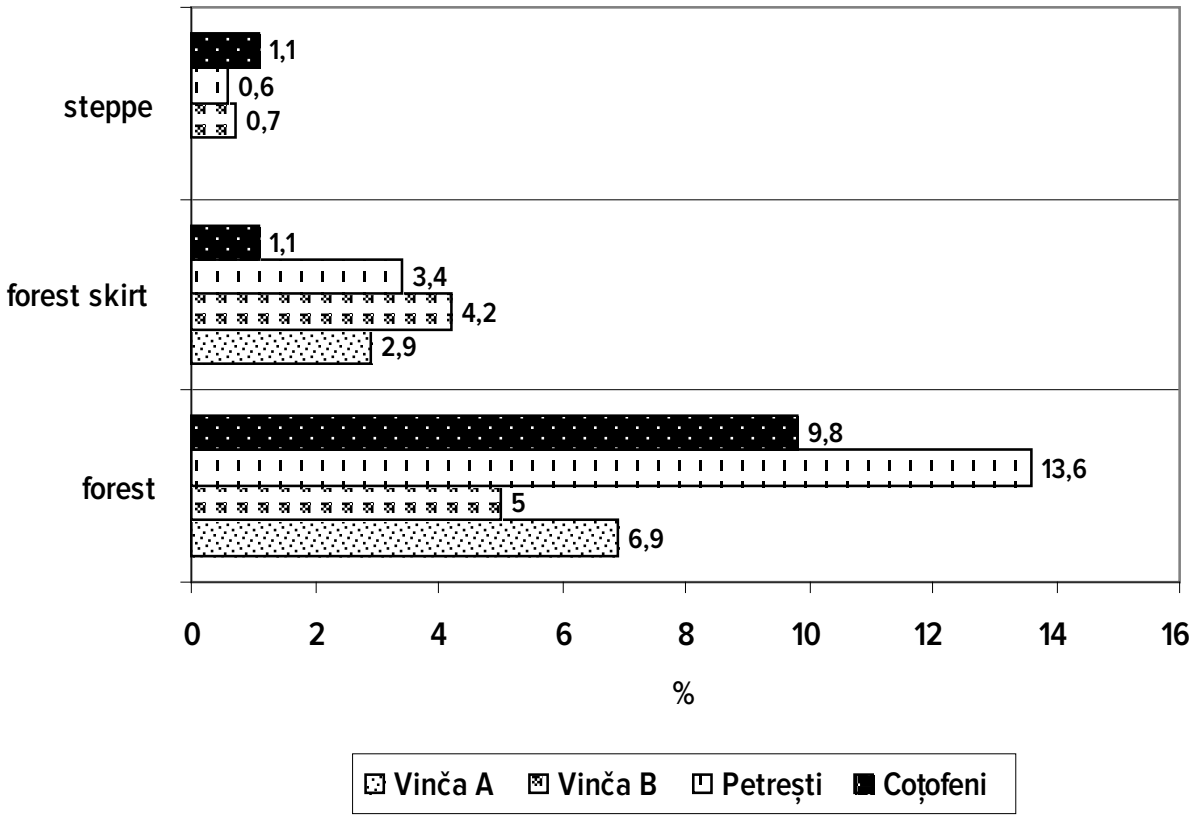


Fig. XI.9. Mammal groups according to an ecological perspective.

ANNEX. METRICAL DATA (MM) REFERRING TO ANIMAL REMAINS IN TĂRTĂRIA

*(VALUES NOTED WITH AN * ARE APPROXIMATIVE).*

Bos taurus Horncore

Settlement	Culture	Large diameter base	Small diameter base	Circumf. base	Large diameter at 5 cm of the base	Flattening index	Gender
Tărtăria	Vinča A	70.4	56	208	66.6	79.54	F
Tărtăria	Vinča A	61.8	48.5	155	55.7	78.47	M

Bos taurus Maxilla

Settlement	Culture	L.P^2-M^3	L.P^2-P^4	L.M^1-M^3
Tărtăria	Vinča A			83.8
Tărtăria	Vinča B	136	54.3	85

Bos taurus Mandible

Settlement	Culture	L.dp2-dp4	L.dp4	L.P_2-M_3	L.P_2-P4	L.M_1-M_3	L.M_3	B. condyle
Tărtăria	Vinča A				61.			
Tărtăria	Vinča A				50			
Tărtăria	Vinča A					85	35.4	
Tărtăria	Vinča A						42.5	
Tărtăria	Vinča A							49
Tărtăria	Vinča A							
Tărtăria	Vinča A						36.9	
Tărtăria	Vinča A						41.9	
Tărtăria	Vinča A		35.1					

Settlement	Culture	L.dp2-dp4	L.dp4	L.P_2-M_3	L.P_2-P4	L.M_1-M_3	L.M_3	B. condyle
Tărtăria	Vinča B	65.	34.5					
Tărtăria	Vinča B		28.4					
Tărtăria	Vinča B			143.5	55.3	90	38	40
Tărtăria	Vinča B				53			
Tărtăria	Vinča B						39.4	
Tărtăria	Vinča B						40	
Tărtăria	Vinča B						42	
Tărtăria	Vinča B						41.6	
Tărtăria	Vinča B							
Tărtăria	Vinča B						39	
Tărtăria	Vinča B						35.2	
Tărtăria	Vinča B		36.7					
Tărtăria	Vinča B		33.6					
Tărtăria	Petrești		32					
Tărtăria	Petrești				45.5			
Tărtăria	Petrești							48.9
Tărtăria	Petrești						34	
Tărtăria	Petrești						39.5	
Tărtăria	Coțofeni		33					
Tărtăria	Coțofeni		32.8					
Tărtăria	Coțofeni						36	

Bos taurus Scapula

Settlement	Culture	L.glenoid process	L. glenoid cavity	B. glenoid cavity	Min. B. neck
Tărtăria	Vinča A	72.6	63	51.5	54.4
Tărtăria	Vinča A	67.7	59.8	51	50.2
Tărtăria	Vinča A	63	55.8	45.5	52
Tărtăria	Vinča B	65.6	57.8	50	
Tărtăria	Vinča B		57	48	52.8
Tărtăria	Vinča B			51.7	
Tărtăria	Petrești	68	58	51.4	52.3
Tărtăria	Petrești	70.3	63.8	51.7	52.8
Tărtăria	Petrești			50.5	48.3
Tărtăria	Petrești			40*	
Tărtăria	Coțofeni	62	52	42.3	

Bos taurus Humerus

Settlement	Culture	Distal B.ep.	B.trohlea	Distal APD
Tărtăria	Vinča B	87	78.5	82.5
Tărtăria	Petrești	81.8	71.5	77.2
Tărtăria	Petrești	82.4	71.8	72.5
Tărtăria	Coțofeni	87.3	75.2	

Bos taurus Radius

Settlement	Culture	Proximal B.ep.	Proximal B. articular surface	Proximal APD	Min.B. df.	APD df.	Distal B.ep.	Distal B. Articular surface	Distal APD
Tărtăria	Vinča A			47					
Tărtăria	Vinča A			37					
Tărtăria	Vinča A						69	58.7	43
Tărtăria	Vinča	82	75	42.6	41.3	22.8			
Tărtăria	Vinča B						74	54.8	42.6

Settlement	Culture	Proximal B.ep.	Proximal B. articular surface	Proximal APD	Min.B. df.	APD df.	Distal B.ep.	Distal B. Articular surface	Distal APD
Tărtăria	Petrești	82	77	42.3					
Tărtăria	Petrești			41.5					
Tărtăria	Petrești						71.2	54	49

Bos taurus Cubitus

Settlement	Culture	B.articular surface	D. across the processus anconeus	Min.B.olecranon	Min.B. processus anconeus	L.olecranon
Tărtăria	Vinča A	50	77.2	63.3	24.4	
Tărtăria	Vinča A	46.8				
Tărtăria	Vinča B		59.6	49.5	21	
Tărtăria	Vinča B	39.4			18.8	
Tărtăria	Vinča B	41.5				
Tărtăria	Vinča B	53.7				
Tărtăria	Vinča B			52.9		91.6
Tărtăria	Coțofeni	44	60.7	51.5	18	

Bos taurus Metacarpus

Settle-ment	Culture	Max. L.	Proximal B.ep.	Proximal APD	Min.B. df.	APD df.	Distal B.ep.	Distal APD	Proximal Index	Df. Index	Distal Index	Gender	Size
Tărtăria	Vinča A		64.8	40									
Tărtăria	Vinča A		57.8	35.7									
Tărtăria	Vinča A				28.3	22.3							
Tărtăria	Vinča B		63.3	39.6									
Tărtăria	Vinča B				23.8								
Tărtăria	Vinča B				33	24.8	65.2	35.6					
Tărtăria	Vinča B						71.2	38.6					
Tărtăria	Vinča B						60.8	32.8					
Tărtăria	Vinča B						56.2	31.9					
Tărtăria	Petrești		53.7	31.3	26.8	19.7							
Tărtăria	Petrești		57	35.4									
Tărtăria	Petrești		69	41.4									
Tărtăria	Petrești				24.8	17.6							
Tărtăria	Petrești				29.3	23	59.5	31.6					
Tărtăria	Coțofeni	197	59.6	38.6	31.2	22	59.8	30.6	30.52	15.3	30.35	F?	1188

Bos taurus Pelvis

Settlement	Culture	L. acetabular cavity	B. acetabular cavity
Tărtăria	Vinča A	76.3	64.7
Tărtăria	Petrești	62.3	59.7
Tărtăria	Coțofeni		57

Bos taurus Femur

Settlement	Culture	Distal B.ep.	Distal APD
Tărtăria	Vinča B	90	
Tărtăria	Petrești	98	101

Bos taurus Patella

Settlement	Culture	Max. L.	Max.B.	APD
Tărtăria	Petrești	63.5	51.3	
Tărtăria	Coțofeni	66	55.5	40

Bos taurus Tibia

Settlement	Culture	Proximal B.ep.	Proximal APD	Min.B. df.	APD df.	Distal B..ep.	Distal B. articular surface	Distal APD
Tărtăria	Vinča A	75.5						
Tărtăria	Vinča B					74	50	56.1
Tărtăria	Vinča B					69	48	48.7
Tărtăria	Vinča B					64	44.6	46.5
Tărtăria	Vinča B							54
Tărtăria	Vinča B							46
Tărtăria	Petrești		80					
Tărtăria	Petrești			36	25.6			
Tărtăria	Petrești			35.5	27.4	55.2	39.6	42.6
Tărtăria	Petrești					63.7	46.5	46
Tărtăria	Petrești					62.5	44.5	46.2
Tărtăria	Coțofeni					59.3	45.5	43
Tărtăria	Coțofeni					53	44	48.5

Bos taurus Calcaneus

Settlement	Culture	Max.L.	Max.B.
Tărtăria	Vinča B	132	44.7
Tărtăria	Vinča B	131	48.5
Tărtăria	Vinča B	139.5	48.2
Tărtăria	Vinča B		50
Tărtăria	Vinča B		45
Tărtăria	Vinča B		45.4
Tărtăria	Petrești	130.7	53.6
Tărtăria	Petrești		46
Tărtăria	Coțofeni		44

Bos taurus Astragalus

Settlement	Culture	Max.l.lat.	Max.l.med.	Depth lat.	Depth med.	Distal w.
Tărtăria	Vinča A	63.9	57.6	37.1	33.1	40.7
Tărtăria	Petrești	70	63	42.4	38.3	43.9
Tărtăria	Petrești	65.4	58.6	38.2	34	41.4
Tărtăria	Petrești	76.7	70.7	45	39.2	49.7
Tărtăria	Petrești	64.4	59.1	38.2	33.1	40

Bos taurus Centrotarsale

Settlement	Culture	Max. B.	APD
Tărtăria	Vinča A	68.3	60.5
Tărtăria	Vinča B	56	55.6
Tărtăria	Vinča B	63.4	58.5
Tărtăria	Vinča B	57.5	52.2
Tărtăria	Petrești	53.8	48.6
Tărtăria	Petrești	56	55.6

Bos taurus Metatarsus

Settlement	Culture	Proximal B. ep.	Proximal APD	Min.B. df.	APD df.	Distal B. ep.	Distal APD
Tărtăria	Vinča A					64.7	37
Tărtăria	Vinča A					62.7	35.3
Tărtăria	Vinča A					52.8	32.6
Tărtăria	Vinča B	54.5	52				

Settlement	Culture	Proximal B. ep.	Proximal APD	Min.B. df.	APD df.	Distal B. ep.	Distal APD
Tărtăria	Vinča B			26.4	29		
Tărtăria	Vinča B			25.7	29		
Tărtăria	Vinča B					54	34.3
Tărtăria	Vinča B					57.3	33
Tărtăria	Petrești	47	44.3				
Tărtăria	Petrești			26	26.6	56.3	32.6
Tărtăria	Petrești					56	30.8
Tărtăria	Petrești					56	33
Tărtăria	Coțofeni					59	33.5

Bos taurus Phalanx I

Settlement	Culture	Max. L.	Proximal B.	Min.B.	Distal B.
Tărtăria	Vinča A	67.6	33	24.2	28.4
Tărtăria	Vinča A	64	33	27.7	34.4
Tărtăria	Vinča A	68.6	37	30.7	31.9
Tărtăria	Vinča A	67.4	30	24.5	29.2
Tărtăria	Vinča A	62.7			
Tărtăria	Vinča B	72.9	38.3	30.8	33.4
Tărtăria	Vinča B	62.8	32.5	29.7	29.5
Tărtăria	Vinča B	61.4	30	25.3	28
Tărtăria	Vinča B			24	28.7
Tărtăria	Vinča B				27
Tărtăria	Petrești	65.8	29.5	24.4	26.4
Tărtăria	Petrești	63.6	28.8	23.4	25.5
Tărtăria	Petrești	66.3	36.7	29.2	31.7
Tărtăria	Petrești	63.6	31.4	25	27.8
Tărtăria	Petrești	60*	30.6*	25.2	
Tărtăria	Coțofeni	63	27.8	22.6	25

Bos taurus Phalanx II

Settlement	Culture	Max. L.	Proximal B.	Min. B.	Distal B.
Tărtăria	Vinča B	38.6	29.2	23.7	25
Tărtăria	Vinča B	45.7	29.4	23.2	23.7
Tărtăria	Vinča B	43.7	28	23	23.8
Tărtăria	Vinča B	52.5	35	29	32.8
Tărtăria	Petrești	48.8	35	28.2	30
Tărtăria	Petrești	46.4	29.5	23.4	26.7
Tărtăria	Coțofeni	43.4	29.7	23.5	26.4
Tărtăria	Coțofeni	50	35.3	27.8	31.3
Tărtăria	Coțofeni	49.1	33.4	27.2	28.2
Tărtăria	Coțofeni	44.5	29.3	22.9	23.8

Bos taurus Phalanx III

Settlement	Culture	L. plantar side	L. dorsal side	Min. B. of the plantar side	L. articular surface	B. articular surface
Tărtăria	Vinča A				38	24.8
Tărtăria	Vinča B	71*	61*			
Tărtăria	Petrești	68.2	51	20.5	33	21.2
Tărtăria	Petrești	80.4	57	23.4	32.3	20
Tărtăria	Petrești	68.2	52.7	21.3	33.3	22.6

Bos taurus Axis

Settlement	Culture	L.arch (including cd. articular process)	B. odontoid apophysis
Tărtăria	Vinča A	72.3	
Tărtăria	Vinča B	94.8	41.4

Bos taurus Cervical vertebra

Settlement	Culture	B. articular process cr.	B. articular process cd.	L.from the cr. process to the cd. process
Tărtăria	Vinča A	95.5		
Tărtăria	Vinča A			69.3
Tărtăria	Vinča A			78.3
Tărtăria	Vinča B	87.4	87	72
Tărtăria	Petrești	76.2		
Tărtăria	Petrești	73.4	75	72.2

Bos taurus Thoracic Vertebra

Settlement	Culture	L.body	B.articular surface cr.	H.articular surface cr.	B.articular surface cd.	H. articular surface cd.
Tărtăria	Vinča A		44*			
Tărtăria	Petrești	66.5	51.3	47	51.2	45.7

Bos taurus Lumbar Vertebra

Settlement	Culture	B. articular surface cr.	H. articular surface cr.	B.articular surface cd.	H. articular surface cd.	B. articular process cd.	L. from the cr. process to the cd. process
Tărtăria	Vinča A			35	41	36	
Tărtăria	Vinča A	38	36.7			38.3	
Tărtăria	Vinča A					30.8	61.5
Tărtăria	Vinča B					39	74.4

Ovis aries Horncore

Settlement	Culture	Large diameter base	Small diameter base	Circumference base	Gender
Tărtăria	Vinča B	26	22	86	F

Ovis / Capra Mandible

Settlement	Culture	L.dp2-dp4	L.dp4	L.P_2-M_3	L.P_2-P_4	L.M_1-M_3	L.M_3	B.condyle
Tărtăria	Vinča A	33.5	19.4					
Tărtăria	Vinča A	31.2	16					
Tărtăria	Vinča B			75.5	27	50.3	23.2	
Tărtăria	Vinča B				23			
Tărtăria	Vinča B				30.4			
Tărtăria	Petrești	29	17					
Tărtăria	Petrești			70.5	24.3	48	19	19.3
Tărtăria	Petrești				24.5			
Tărtăria	Petrești				25.3			
Tărtăria	Petrești							22.8
Tărtăria	Coțofeni			73	26.3	46	19	
Tărtăria	Coțofeni	29.5	15.5					
Tărtăria	Coțofeni							19.5

Capra hircus Humerus

Settlement	Culture	Distal B.ep.	B.trohlea	Distal APD
Tărtăria	Petrești	29.7	28	25

Ovis / Capra Humerus

Settlement	Culture	Min.B.df.
Tărtăria	Coțofeni	14

Ovis aries Radius

Settlement	Culture	Proximal B.ep.	Proximal B. articular surface	Proximal APD	Min.B.df.	APD df.
Tărtăria	Coțofeni	29.3	28.2	15.3	18.2	9.7
Tărtăria	Coțofeni	28.5	27.5	13.7	18.1	9

Capra hircus Metacarpus

Settlement	Culture	Proximal B.ep.	Proximal APD	Min.B.df.	APD df.
Tărtăria	Petrești	19.4	13.4	10.2	8.6

Ovis aries Pelvis

Settlement	Culture	L. acetabular cavity	B.acetabular cavity
Tărtăria	Vinča B	23.8	21.2

Ovis aries Femur

Settlement	Culture	Distal B.ep.	Distal APD
Tărtăria	Petrești	33.6	40
Tărtăria	Coțofeni	31.4	37

Ovis / Capra Tibia

Settlement	Culture	Min.B.df.	APD df.	Distal B.ep.	Distal B. of articular surface	Distal APD	Size
Tărtăria	Vinča A			22.8	17.8	18.7	
Tărtăria	Petrești	11.4	9.2				

Sus domesticus Maxilla

Settlement	Culture	L.dp2 – dp4	L.dp4
Tărtăria	Coțofeni	29.3	12

Sus domesticus Mandible

Settlement	Culture	L. symph.	L.dp2 – dp4	L.dp4	L.P_1 – M_3	L.P_2 – M_3	L.P_1 – P_4	L.P_2 – P_4	L.M_1 – M_3	L.M_3	Gender
Tărtăria	Vinča A		38.7	16,5							
Tărtăria	Petrești									40.4	
Tărtăria	Petrești	53			98.4	78.5	46.5	29.4	51.3	21	
Tărtăria	Coțofeni	56.6									F

Sus domesticus Scapula

Settlement	Culture	Min.B.neck
Tărtăria	Coțofeni	15.9

Sus domesticus Humerus

Settlement	Culture	Proximal B.ep.	Min.B.df.	APD df.
Tărtăria	Petrești	60*		
Tărtăria	Coțofeni		11.8	20

Sus domesticus Radius

Settlement	Culture	Proximal B.ep.	Proximal APD	Min.B.df.	APD df.
Tărtăria	Coțofeni	26.5	18.8	15.6	9.8

Sus domesticus Cubitus

Settlement	Culture	B. articular surface	D. over the anconeus process	Min. B. olecranon	Min. B. anconeus process
Tărtăria	Coțofeni	18.9	32	23	10

Sus domesticus Astragalus

Settlement	Culture	Max. L. lat.	Max. L .med.	D. lat.	D.med.	Distal B.	Size
Tărtăria	Petrești	48.3	44.4	26.6	30.3	30	887.57

Sus domesticus Metatarsus III

Settlement	Culture	Max. L.	Proximal B.ep.	Proximal APD	Min. B. df.	APD df.	Distal B.ep.	Distal APD	Size
Tărtăria	Petrești	79.5	15.6	20	12	10.2	15.6	15.2	748.13

Sus domesticus Thoracic Vertebra

Settlement	Culture	B. articular surface cr.	H. articular surface cr.
Tărtăria	Vinča B	34.5	36.3

Sus domesticus Lumbar Vertebra

Settlement	Culture	B. articular surface cr.	H. articular surface cr.	B. articular surface cd.	H. articular surface cd.	B articular process cr.	B articular process cd.	L. from the cr. process to the cd. process
Tărtăria	Petrești			45.5	30.5		43.4	
Tărtăria	Petrești						38.6	
Tărtăria	Coțofeni	35.5	35	38	31.6			
Tărtăria	Coțofeni	39.5	35	42	37.5	46.3		61.3
Tărtăria	Coțofeni	38.8	40			49.6		

Canis familiaris Mandible

Settlement	Culture	L.condyle
Tărtăria	Vinča B	19.4

Canis familiaris Pelvis

Settlement	Culture	L.acetabular cavity	B. acetabular cavity	Min. H. ilium	Min. B. ilium
Tărtăria	Vinča B	18.5	17.6	15.2	7.2

Cervus elaphus Mandible

Settlement	Culture	$L.M_3$	B.condyle
Tărtăria	Vinča A		29
Tărtăria	Vinča B		33.4
Tărtăria	Vinča B	39	
.Tărtăria	Petrești		26

Cervus elaphus Scapula

Settlement	Culture	Min. B. neck
Tărtăria	Petrești	32.2

Cervus elaphus Humerus

Settlement	Culture	Proximal B.ep.	APD prox.
Tărtăria	Petrești	65	83.6

Cervus elaphus Radius

Settlement	Culture	Proximal B.ep.	Proximal B. articular surface	Proximal APD	Min. B. df.	APD df.
Tărtăria	Vinča A	60.3	50.8	35.4	36.4	19.2
Tărtăria	Coțofeni		51.5	31.8		

Cervus elaphus Cubitus

Settlement	Culture	B. articular surface	Min. B. anconeus process
Tărtăria	Vinča B	36.2	17.3
Tărtăria	Coțofeni	30.3	

Cervus elaphus Metacarpus

Settlement	Culture	Min. B. df.	APD df.	Distal B.ep.	Distal APD
Tărtăria	Vinča B	25.5	22	44.3	30
Tărtăria	Petrești			46.6	29.5
Tărtăria	Coțofeni			46.3	29.8

Cervus elaphus Pelvis

Settlement	Culture	L. acetabular cavity
Tărtăria	Coțofeni	58*

Cervus elaphus Calcaneus

Settlement	Culture	Max.L.	Max.B.
Tărtăria	Petrești	127.4	44
Tărtăria	Petrești		48.6

Cervus elaphus Astragalus

Settlement	Culture	Max.L.lat.	Max.L.med.	D. lat.	D. med.	Distal B.
Tărtăria	Vinča B	52.2	49	29.4	27.2	32.3
Tărtăria	Coțofeni	56.4	53.6	32.4	30	33.7

Cervus elaphus Centrotarsales

Settlement	Culture	Max.B.	APD
Tărtăria	Vinča A	51.6	49.7

Cervus elaphus Metatarsus

Settlement	Culture	Proximal L.ep.	Proximal APD	Min. B. df.	APD df.
Tărtăria	Vinča A			21	22,6
Tărtăria	Coțofeni	42.3	45.2		

Cervus elaphus Phalanx I

Settlement	Culture	Max.L.	Proximal B.	Min. B.	Distal L.
Tărtăria	Petrești	63.7	23.7	18	21.2
Tărtăria	Petrești	67	25	20.2	23.4

Cervus elaphus Phalanx II

Settlement	Culture	Max.L.	Proximal B.	Min. B.	Distal B.
Tărtăria	Vinča A	47	20.5	16.6	18
Tărtăria	Petrești	43	20.2	15	17.5
Tărtăria	Petrești	47.5	22.8	16.8	20
Tărtăria	Petrești	49.3	23.4	18.5	21.5

Capreolus capreolus Horns

Settlement	Culture	Circumf. horn above rosette	Circumf. pedicle
Tărtăria	Vinča B	52	50

Capreolus capreolus Humerus

Settlement	Culture	Min.B. df.	APD df.	Distal B.ep.	B.trohlea	Distal APD
Tărtăria	Vinča A	10.8	11.6	23.4	22	
Tărtăria	Petrești			27.7	25.4	21.5

Capreolus capreolus Radius

Settlement	Culture	Min.B.df.	APD df.	Distal B.ep.	Distal B. articular surface	Distal APD
Tărtăria	Vinča B	14.7	9.8	25.6	20.5	19.2

Capreolus capreolus Cubitus

Settlement	Culture	B. articular surface	D. over the anconeus process	Min. B. olecranon	Min. B. anconeus process
Ch.Turzii	CCTLNI	18	22.2		8.5
Ch.Turzii	Petrești	14.8	22.2	18.5	7.6
Ch.Turzii	ToartePas	18	29.2		10

Capreolus capreolus Tibia

Settlement	Culture	Proximal B.ep.	Proximal APD
Tărtăria	Vinča B	34.5	
Tărtăria	Petrești	23.2	24.7

Capreolus capreolus Metatarsus

Settlement	Culture	Proximal B.ep.	Proximal APD	Min. B. df.	APD df.
Tărtăria	Coțofeni	21	23*	13.7	14.7

Sus ferus Scapula

Settlement	Culture	L. glenoid process	L. glenoid cavity	B. glenoid cavity	Min. B. neck
Tărtăria	Petrești	52.7	39.5	35	35.5

Sus ferus Humerus

Settlement	Culture	Distal B.ep.	B.trohlea
Tărtăria	Coțofeni	58	45

Sus ferus Radius

Settlement	Culture	Proximal B.ep.	Min.B.df.	APD df.	Distal B.ep.	Distal B. articular surf.	Distal APD
Tărtăria	Petrești	37.7	28	23.3			
Tărtăria	Petrești				47.5	40	34

Sus ferus Cubitus

Settlement	Culture	B. articular surface	Distal B.ep.	Distal APD
Tărtăria	Petrești	28.6	20	25

Sus ferus Metacarpus IV

Settlement	Culture	Max.L.	Proximal B.ep.	Proximal APD	Min.B.df.	APD df.	Distal B.ep.	Distal APD	Size
Tărtăria	Coțofeni	99.6	21.3	20.8	15.2	14	20.6	22	1019.38

Sus ferus Tibia

Settlement	Culture	Min.B.df.	APD df.
Tărtăria	Petrești	26.3	20

Bos primigenius Cubitus

Settlement	Culture	B. articular surface	D. over the anconeus process	Min. B. olecranon	Min.B. anconeus process	L. olecranon
Tărtăria	Vinča B	62	78.5	63.6	25	132.2

Bos primigenius Patella

Settlement	Culture	Max.L.	Max.B.	APD
Tărtăria	Petrești	90	70	52.7

Bos primigenius Tibia

Settlement	Culture	Proximal B.ep.
Tărtăria	Petrești	111

Bos primigenius Astragalus

Settlement	Culture	D.lat.	D.med.	Distal B.
Tărtăria	Vinča B	39	44	514

Bos primigenius Phalanx II

Settlement	Culture	Max.L.	Proximal B.	Min.B.	Distal B.
Tărtăria	Petrești	58.5	42.3	33	38.7

Lepus europaeus Humerus

Settlement	Culture	Min.B.df.	APD df.
Tărtăria	Petrești	5.4	6.2

Lepus europaeus Femur

Settlement	Culture	Distal B.ep.	Distal APD
Tărtăria	Coțofeni	20	18.3

Felis silvestris Mandible

Settlement	Culture	L. canine alveole	L.P_3-M_1	L.M_1	H. before P_3	H. after M_1	H. vertical branch	L. horizontal branch condyle-canine
Tărtăria	Coțofeni	6.2	21.2	8	9	9.4	22	45

Martes martes Mandible

Settlement	Culture	L.canine alveole	L.P_1-M_2	L.P_1-P_4	L.M_1-M_2	L.M_1	B.M_1	B.condyle	H. before M_1	H. after M_1	H.after M_2
Tărtăria	Petrești	5.5	31.5	18	14	10.7	4.6	10.9	9.5	12.9	12.8
Tărtăria	Petrești		33.4	19.5	14.6	11	4.7	8.7	9.2	11.4	12.2

L. = lengh, B. = breadth, H. = height, D. = depth, APD = antero-posterior diameter, ep. = epiphysis, df. = diaphysis, cr. = cranial, cd. = caudal.

CHAPTER XII
THE RELATIVE AND ABSOLUTE CHRONOLOGY. CONCLUSIONS

CORNELIA-MAGDA LAZAROVICI, GHEORGHE LAZAROVICI, COSMIN SUCIU

ABOUT RELATIVE CHRONOLOGY

The older archaeological excavations at Tărtăria were relatively small, with the exception of those made by Kurt Horedt. Starting with 2010, large scale excavations have been organized by S. A. Luca. The older excavations generally lasted for one season; investigation, stratigraphic observations have been made for the same areas, with the purpose of checking the old stratigraphy and obtaining a better „stratigraphy", with better drawing profiles. Nevertheless, the materials have not been published on layers, levels or complexes.

For the comparison of materials on sections and depths, N. Vlassa has the merit of having established a stratigraphy (capitalized through publishing and the Cluj-Napoca exhibition) that maintains its merits, even if no longer up to date. This stratigraphy has integrated observations from older excavations and introduced archaeological materials arranged on digging levels. Unlike the stratigraphy drawn by I. Paul, which was finer, more precise, with layers, levels and different thickness levels, the one made by N. Vlassa localized and framed the archaeological materials discovered by K. Horedt and himself.

The main contribution of I. Paul stratigraphy's was to the understanding and reconstruction of the architecture. Unfortunately, not all archaeological materials obtained in the 1989 excavations have not been collected, nor organized on excavation levels, as N. Vlassa has done. In addition, materials resulted from these excavations (organized on squares and depths) have been selected on the field withought criteria, many of them buried again at the end of the excavation (because there were no funds available for the excavations and packaging)[1670]. Although during the 1989 excavation at Tărtăria, I. Paul had a very good team (Al. Aldea, Fl. Draşovean, A. S. Luca and others), and the site has been visited by famous archaeologists (Vl. Dumitrescu, Silvia Marinescu-Bîlcu), materials have been not researched up to now and only some have been published.

We believe that the excavation carried out by I. Paul was rather good, but the materials were not washed, analyzed, or inventoried during the excavation (or later), which reduces the importance of the research. In 2010 when new excavations started here, on the bottom of older excavation, Prof. Luca's team found several buried materials (idols, entire *spondylus* shells, flint and obsidian tools, painted or decorated pottery). Moreover, in order to fill in quickly the older ditches, large chunks of margins belonging to stratigraphic profiles have been demolished.

This situation suggests that a properly carried out excavation is not sufficient to obtain good results. Selecting materials on the field, withought washing them, processing materials on complexes (involving all aspects) and throwing them away, undermine the research as such and question all results. The 1989 materials are in the custody of the Alba Iulia museum and it will still take some time before they will be integrated in the scientific circuit. However, important details are lost because of the passage of time.

Another deficiency of the 1989 excavations is that materials and layers have been interpreted based on older stratigraphic, chronological and cultural opinions, dating from 1949, 1959–1963. Although the report was published 19 years after the excavations were made (in 2007), the stratigraphy and its interpretation remained the same, as before the excavation. Although having a good stratigraphic profile, the new excavation lacked materials and arguments, which meant that it did not add much to the results published by N. Vlassa. It is worth stressing that while inventorying the Tărtăria materials, N. Vlassa (see chapters III and IV) used the European terminology of that time, which was based on the stratigraphy published by Vl. Milojčić in 1949 (still valid 20 years after). However, later on he published another terminology, maybe under the pressure of K. Horedt's conservatorism. Consequently, we suppose that the preservation of the older chronological and cultural conceptions is related with Professor Kurt

[1670] One week after excavations stopped, Gh. Lazarovici and Eszter Bánffy visited the site and observed that the pottery was arranged on squares on the border of the excavation, while bones were placed at the end of squares on one excavation level.

Horedt, tutor of both Nicolae Vlassa and Iuliu Paul during their university studies and the first to start excavations at Tărtăria.

Today these chronological systems are mainly related with the history of the research. In their doctoral theses and many other studies, Professors Fl. Draşovean and S. A. Luca (who participated in the 1989 excavations as young archaeologists) have brought new data that required a revision of the conclusions regarding the 1989 excavations, even before the publishing of the results in 2007. We argue that analyses of archaeological materials must reflect actual chronological and cultural frames, while taking into account both older and more recent publications, comparative stratigraphy and radiocarbon results.

We had wished to make an extensive comment about the chronological and cultural connections, but because of how stratigraphic data and comparative stratigraphy were handled, we had to operate only with typology and not with data. As we have mentioned, there are sketchy/superficial observations (related with depths or digging levels) for about 600 objects. A new modern excavation was started at Tărtăria in 2010; materials must be processed on the field, since in this way those leading the excavation will get the latest information regarding the materials' mixtures. This is not an easy investigation, because sometimes, in tells pits are difficult to detect only through scraping. Therefore, vacuum cleaners are necessary as well as very good technicians and specialists trained to distinguish ceramic materials during excavations and detect mixtures, imports and cultural syntheses. We hope that the new excavations and materials as well as the publishing of the materials resulted from the 1989 excavations (on complexes or with minimum existing data; maybe including the correlation of materials from 1989 and 2010) will bring new data.

The absolute chronology

Starčevo-Criş II

There is no direct data regarding the Starčevo-Criş (SC) sporadic habitation at Tărtăria–Groapa Luncii. But, the characteristic monochrome pottery, as well as in relief belts, the missing of slip and red engobe, the presence of some wide pressing on lips (AP type motive), the existence of pseudo-barbotine **(fig. IV.10)**, also present at Balomir **(fig. II.5/6, 9)**, suggests their ascription to the beginning of stage SC II, more precisely in stage IIB, when in several sites an involution process was noticed.

This stage is associated with another migration that brings painting on a white background, as well as white and black painting, including the black transparent painting. Several main sites, in which larger investigations have been made as well as some sites with many materials, belong to this stage. For some of the main sites there are radiocarbon data, others have sufficient materials to allow a precise ascribing. We have studied several materials related to this phase and stage that allow us to define the first two large migrations, but retardation phenomenons are difficult to define.

The Neolithisation process related with the SC IB-IC stage continues in SC IIA with small sites that swarm from the area of the bigger sites, in which the habitation process starts earlier and continues during several phases. The next big migration (SC IIIA) has a pottery with barbotine (spattered) and black painting. Therefore, SC discoveries from Tărtăria detach from Miercurea Sibiului or Şeuşa. Miercurea Sibiului is the closest and more intensive investigated site with several complexes.

Similar sites are also known at Gura Baciului (with swarms at Fundătura and Vultureni), Ocna Sibiului, Miercurea Sibiului (swarms at Tărtăria, Şeuşa) and a newer one Târgu Mureş – *Sala de sport* (swarms at Matei). In all these big sites, painted pottery with white color is present. In the swarm sites there are complexes or only ceramic of monochrome tradition, as the one at Tărtăria.

These materials can be framed around 5800 CAL BC[1671] (table in fig. IV.11a).

At the same chronological level, downstream the Mureş River there are discoveries at Röske – *Ludvar*[1672], which are related with similar phenomenons from the northern part of eastern Banat such as Foeni – *Sălaş*, Dudeştii Vechi[1673]. The Neolithisation process continues to the North in Transylvania, Crişana and Alföld Plain at Szarvas Ob. 23[1674] and to the west (Donja Branjevina) but in fewer places.

For some of these stages there are radiocarbon analyses, and it must be noted that lately their number has grown for the Romanain territory.

[1671] For radiocarbon data see C. Suciu, S. A. Luca: http://arheologie.ulbsibiu.ro/radiocarbon/2007%2010%20ian%20data.htm

[1672] Hertelendi E., Horváth, F. 1994, p. 122; *apud* C. Suciu, S. A. Luca *ulbsibiu.ro/radiocarbon*

[1673] Biagi P. et al. 2005, p. 49.

[1674] Biagi P., Spataro M. 2004; Biagi P. et al. 2005.

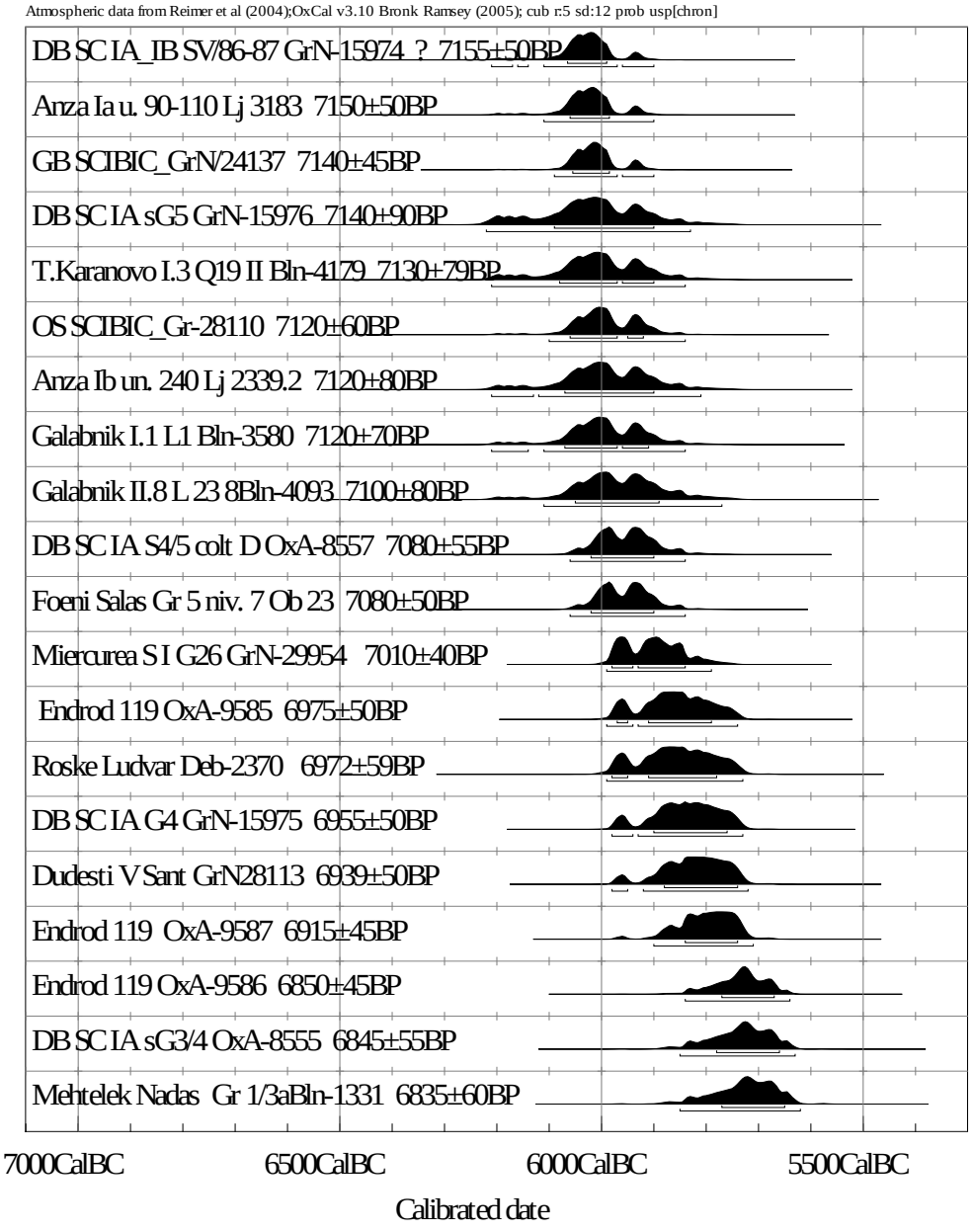


Fig. XII.1. Calibrated radiocarbon data from SC IC until SC IIIB.

Until now, in Transylavnia there are no indications of migrations and diffusions that take place at the Ghirlandoid horizon in Banat and in the western part of Starčevo-Criş area. The Neolithisation process extends withought painting, as indicated by present observations and excavated materials.

For phase SC III, when the first Vinča communities penetrate Banat and Transylvania, in southern areas of the Romanian territory as well as in Banat there is evidence concerning Polychromy communities that reach these territories and concur to the Neolithisation of the eastern part of Romania. Unfortunately, there are no direct data or radiocarbon data to document the beginning of these processes, or for Vinča A1. Indirect evidence is represented by ornaments of SC III AB traditions at Liubcova and Gornea where the earliest Vinča A1 sites are recorded.

Gh. Lazarovici has dated the beginning of Vinča A stage at level SC IIIB, in relation with Polychromy aspects. Radiocarbon results show that SC IIIA was before 5600 CAL BC.

Radiocarbon data for Banat culture (Lv–2145, 2146, 2147), Polychromy (Copăcelu – Valea Răii (KN.I 6480), Vinča – Dudeşti from Oltenia (Bln–1978), Trestiana, Săcăreuca / Sakarovka in Moldova and Bessarabia, and Limba Bordane (GrN–28457) from Transylvania date after 5600 BC when SC IIIB starts. In fact, the same process takes place in the western area of SC culture at Golokut – Vizić (OxA–10147, 8616). All these data suggest that the end of SC IIIB is around 5500 CAL BC.

Fig. XII.2. Spread of stages SC II in the southern part of Central Europe. (Courtesy of Microsoft Corp.).

Vinča A

The origin of this civilization is in the south. Phenomenons from area where Vinča is born and with which is related this civilization from Anatolia[1675] until in our regions is marked by several discoveries, such as Larissa – Tsangli in Greece[1676], Anzabegovo II/III in Macedonia[1677], Dunavec I – Kolsh I in Albania[1678] and others in Serbia. Through Thracian Turkey, Bulgaria to the southern Romanian regions the way is marked by several sites, such as Hoça Çesme, Veselinovo I, Ovčarovo – *Platoto*, Poljanica – *Platoto*, Ovčarovo – *Zemnika*, Karanovo II and others[1679]. Elements that generate this culture in the South (appear in association with SC IIB-IIIA (liniar B) and Ghirlandoid as technique), in Serbia and Bulgaria, are earlier (Karanovo II) but not ascribed to coherent chronological systems, because old terminologies still prevail.

The three-radiocarbon data from Tărtăria indicate that Vinča A1 is present in southern Transylvania, but there are few materials or investigations in closed complexes to define it. Materials and the earliest radiocarbon data plead for a Vinča A2 stage, with some materials belonging to a Vinča A1 stage, but it is difficult to date it precisely because imports are missing. At Moldova Veche in SC IV there are imports, but they are related with Vinča A2–A3 stage.

[1675] Garašanin M. 1951; Berciu D. 1961, p. 36; Lazarovici Gh. 1977, p. 49–50 1987–1988, p. 17; 2000, p. 276; Lazarovici Gh., Nica M. 1991, p. 5; Lazarovici Gh., Maxim Zoia 1999, p. 63; Chapmann J. 1981, p. 2; Ursulescu N. et al. 1991, p. 157; Özdoğan M. 2003, p. 352; Horváth F. 2003, p. 100; Luca S. A. 2008, p. 26 a.s.o.; Suciu C. 2009, p. 26–33 see here the recent bibliography of the problem.

[1676] Opinions several times expressed by Gh. Lazarovici: Lazarovici Gh. 1977a; 1977b; 1977c; 1978a and others.

[1677] Lazarovici Gh. 1984 and bibliography.

[1678] Korkuti M. 1995, p. 49–55, Taf. 21; 37/7–12.

[1679] Lichardus Marion et al. 2000, p. 79, 84.

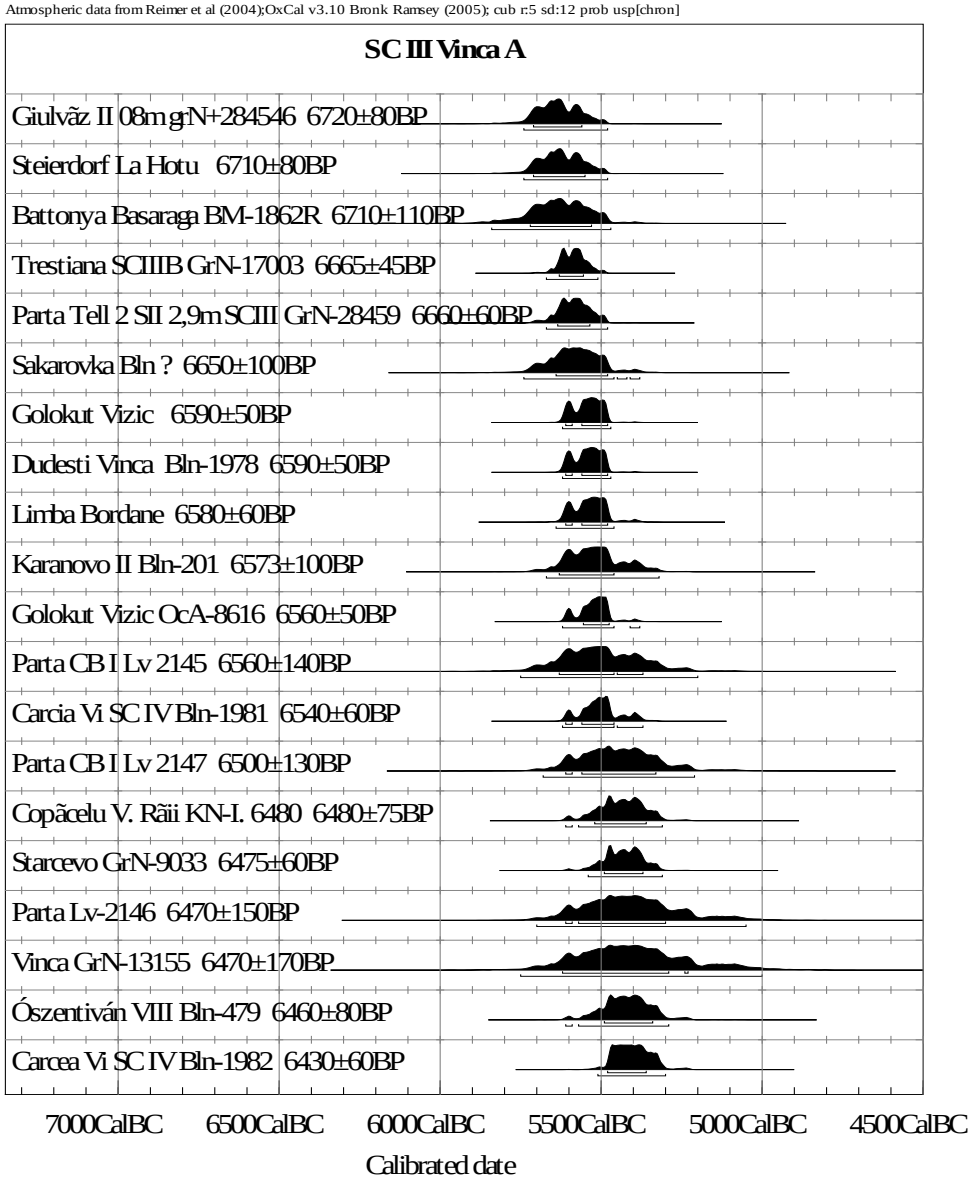


Fig. XII.3. Calibrated data for interval SC IIIA-IV – Vinča A.

Vinča sites with evident complexes of Vinča A1–A2 phase are in Banat at Gornea[1680], Liubcova level IVa (B6/1985)[1681] and Sat Chinez[1682].

In Transylvania there are important discoveries related to the Vinča A2 and A3 stages at Limba, Romos, Miercurea Sibiului, Ocna Sibiului and others. At Limba and Romos the evolution is related with Banat, whereas at Miercurea Sibiului with Oltenia or represents a local evolution. The beginning of Vinča A2 is around 5300 CAL BC, as also evidenced by others sites from Transylvania's neighborhood, such as Ószentiván VIII (Bln–479), contemporary with SC IV from Copăcelu – Valea Răii (Bln–1982) and Cârcea – *Viaduct* (Bln–1982). In the case of the last sites from Oltenia (Copăcelu – Valea Răii, Cârcea – *Viaduct*) radiocarbon data are not related with complexes and serriation cannot be used for materials.

Radiocarbon data for the cult pit (Milady skeleton) dates before 5400 CAL BC, corresponding to a Vinča A1-A2 stage. As such, her age (50 years old) should be added to the radiocarbon data, which would suggest that the habitation starts after 5500 or more exactly before 5300 CAL BC. The cup and some idols found in the cult pit at Tărtăria indicate a Vinča A1 site. However, there are very few materials and

[1680] Lazarovici Gh. 1973, p. 30–31; 1977, p. 22–23; 1979, especially in B21b: Suciu C. 2009, p. 40.

[1681] Luca S. A. 1985; 1987; 1990; 1998, fig. 11 –17.

[1682] Lazarovici Gh. 1979b, p. 206; 1998a, p. 26; Lazarovici Gh., Kalmar Zoia 1993, p. 41, 43; Drașovean Fl. 1993; 2001, p. 819, 820; Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 121–122 Luca S. A., WEB n. 514, n. 60.

those from the neighborhood of the pit house have been selected (we do not know what was throw away). Anyway, the pit house based on the dated bone from level h18, is a little bit later (fig. XII.4, Brd H17–18), between 5300 and 5100 CAL BC.

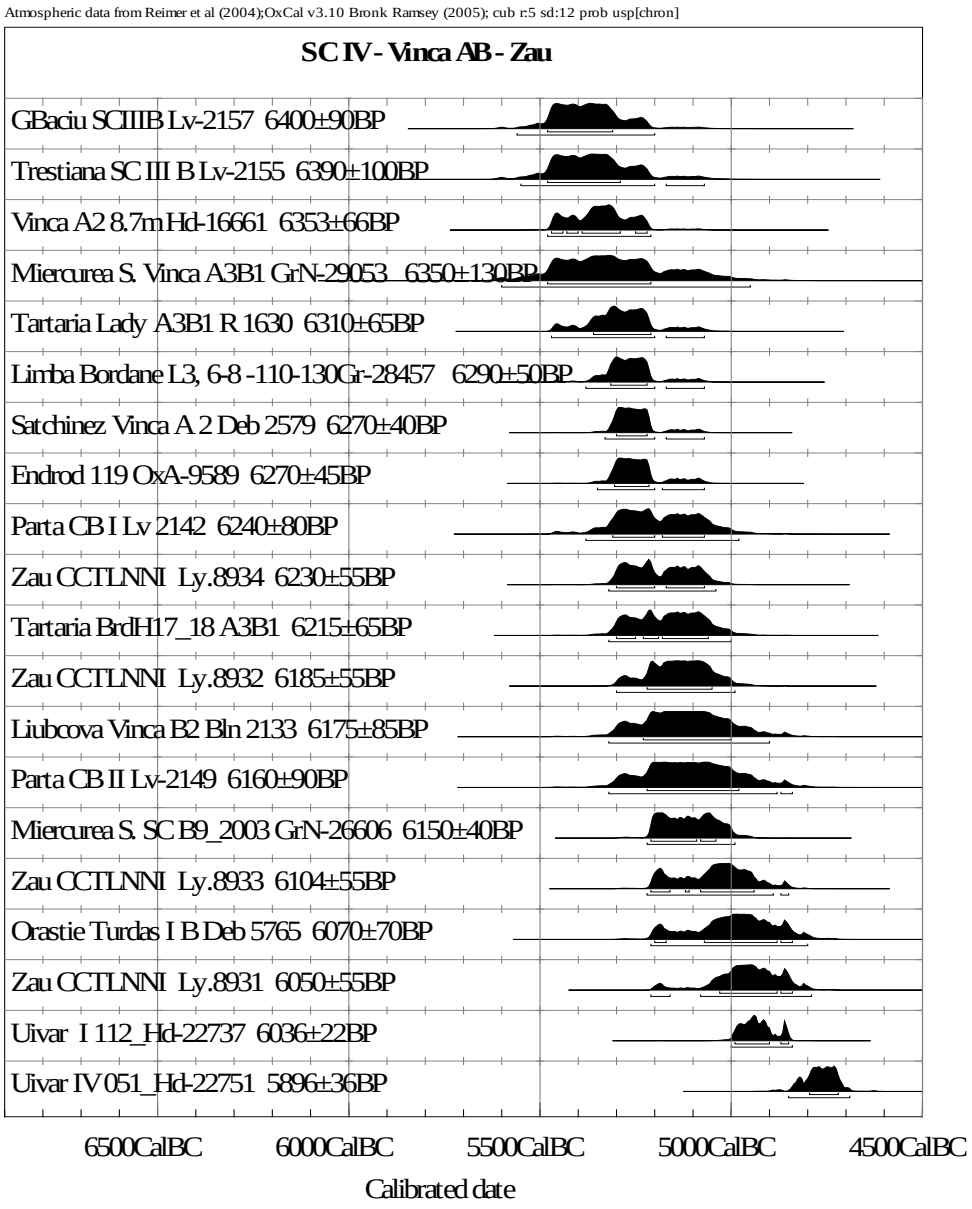


Fig. XII.4. Calibrated radiocarbon data from SC IV – Vinča B (withought Uivar).

The site from Limba – *Bordane* is vast and the earliest materials are Vinča A1/A2[1683], showing a connection with the Banat evolution. We do not know how the materials from house L 3 look. They are dated between 5300–5200 CAL BC, corresponding to stage Vinča A2, respectively to phase 3 after W. Schier. Unfortunately, the complex containg A1–A2 material was not published with details or other materials and only reconstructed pots are known[1684].

Materials as the ones from Limba – *Bordane* and – *Vărarea* or –*Vărărie* (later)[1685] are similar with the ones in Banat. Some shapes are known from the early Polychromy levels from Leț[1686] and Trestiana I[1687] but also in Western Oltenia (Verbicioara, Şimnic).

[1683] Paul I. et al. 1998; 1999; 2000; 2001; 2002; 2003; 2004; Ciută M. 2002; 2003; Gligor M. 2007a ; 2007b; Lazarovici Gh. 2009, p. 182–183; Suciu C. 2009, p. 73–74, fig. 93.

[1684] Materials are organised on the same board at C. Suciu 2009, p. 53–54, and bibliography.

[1685] Florescu C. et al. 2007, cat. 13–17.

[1686] Zaharia Eugenia 1962; 1964, stratigraphy have not to be taken seriously, but materials yes; Lazarovici Gh. 1993, p. 29–32.

[1687] House A/L3, Popuşoi Eugenia 2005, p. 256, fig. 59/3 maybe 1, 5; B/L4, p. 261, fig. 64/1–3, 65/1,4; C/L2, 69/4–6, 74/1, 3; 76/1–7; 77/2–7; 78/12, 6 79/1–3, 89/1–6.

For Vinča A phase at Miercurea Sibiului (fig. XII.4) there are two radiocarbon data that place the beginning of Vinča A2 phase after 5500 CAL BC[1688]. These data are contemporary with some from Trestiana and Vinča A2 at Vinča site. Only one (Gr–33127) is dated after 5300 CAL BC[1689] but all of them suggest a very intense period of fluctuations, as also shown by the calibration curves (fig. XII.3).

At Ocna Sibiului – *Fața Vacilor* there might be a site belonging to the Vinča A2 stage[1690]. Nevertheless, there are few materials or, few materials have been published that could confirm this ascription.

In another complex at Limba, in pit house B1/SII –1995 there is a strong tamping (over 90 cm) and in the Vinča A3 complex appeared two painted pots belonging to Zau culture[1691].

If for Vinča A3 phase there are several discoveries, there are few radiocarbon data related with complexes on whose periodisation one could rely upon. The beginning of the phase is a little bit before 5200 CAL BC.

For Oltenia there are several radiocarbon data but their cultural and chronological attribution is not sure. In addition, in Oltenia the Dudeşti – Vinča notion and its periodisation are not very clear. Data as such do not indicate the ethno-cultural process (evolution, frames, synthesis). In southwestern Transylvania, along the Mureş River, phenomenons are related with the Banat evolution, whereas along Olt and at Miercurea Sibiului – Ocna Sibiului the phenomena are related to those in Walachia – Oltenia or reflect a local evolution.

Discoveries from Southeastern Transylvania (Leț) are connected with the migration and diffusion processes of the first stages of Polychromy (especially the rectilinear). Some early radiocarbon data exist for materials from Piatra Neamț area, but these early data are not related with similary early archaeological material. The earliest relate to SC III phase. These migrations determine the Neolithisation process in Moldova.

For east and central Transylvania, there are no direct evidences of the consequences of the migration determined by Polychromy. Indirectly, there are Polychromy influences in painting, smoothing and engobing techniques that will contribute to the appearance of a different culture with painted pottery, Zau culture. This culture preserves chaff in the ceramic paste, as well as the slip (white, red, brown) and engobe (white, red, brown[1692]) techniques, but it does not have bitronconic shapes typical for early Polychromy or barbotine decoration. Nevertheless, in the mentioned areas **Zau culture** is born**.** Very important are the imports found in Vinča sites, which suggest that this culture appeared at Vinča A3 level. Such imports have been discovered at Alba Iulia – Lumea Nouă and Limba (B1 from S II/1995) and Miercurea Sibiului[1693].

Vinča B

In the central area of the Mureş River, from Tărtăria towards the north, there are several Zau imports at different chronological stages in almost all sites. These imports are reffered to in the archaeological literature as „Lumea Nouă" (Zau in our opinion). A special study was made on 14 ceramic fragments ascribed to *„Lumea Nouă aspect"* from Alba Iulia – *Lumea Nouă* by an Italian team. Other ceramic materials related with Vinča A and Foeni from excavations made in the same site have been analyzed. The tests showed that the clay used for the painted ceramic does not come from Alba Iulia or Limba areas, as was the case with the clay used for Vinča and Foeni materials[1694]. As such, Vinča ceramic from Limba and Lumea Nouă come from the same geological sources[1695]. For Foeni materials, about 22 samples have been analyzed. Ceramic related with group 2, black and blacktopped pottery was made by local clay[1696]. M. Gligor argued *„... From a chemical point of view, between the painted Lumea Nouă pottery and local analyzed clay, a direct correlation cannot be established. In spite of this* **(Sic! o.n.)**, ***however, we can suppose*** *that the chemical artefacts studied have a local provenance"*[1697]. We believe that these materials represent imports from Zau sites and not from the Mureş River area, as the analyses correctly indicated.

[1688] Suciu C. 2009, p. 38, fig. 26.
[1689] Suciu C. 2009.
[1690] Suciu C. 2009, p. 38, 139.
[1691] Lazarovici Gh. 2009, p. 184, fig. 6; materials organised on the same board at C. Suciu 2009, p. 53–54. p. 75, pl. 95 and bibliography.
[1692] Lazarovici Gh. 2009.
[1693] Kindly information S. A. Luca and C. Suciu.
[1694] Varvara S. et al. 2008 *apud* Gligor M. 2009, p. 92–97.
[1695] Gligor M. 2009, p. 95.
[1696] Varvara S. et al. 2008; Fabbri B. 2008, 2009 *apud* Gligor M. 2009, p. 96, n. 288–289.
[1697] Gligor M. 2009, p. 95.

The table in fig. XII.5 groups radiocarbon data for Vinča A – Starčevo-Criş IV sites together with the earliest data for the Linear pottery culture (LBK) in Hungary. According to the table, Méhtelek discoveries in Pit 4 date from around 5600 CAL BC. Radiocarbon data for Banat culture have a longer spread, which makes it difficult to say when the habitation starts, but the contact with SC IIIB is evident from the archeological material.

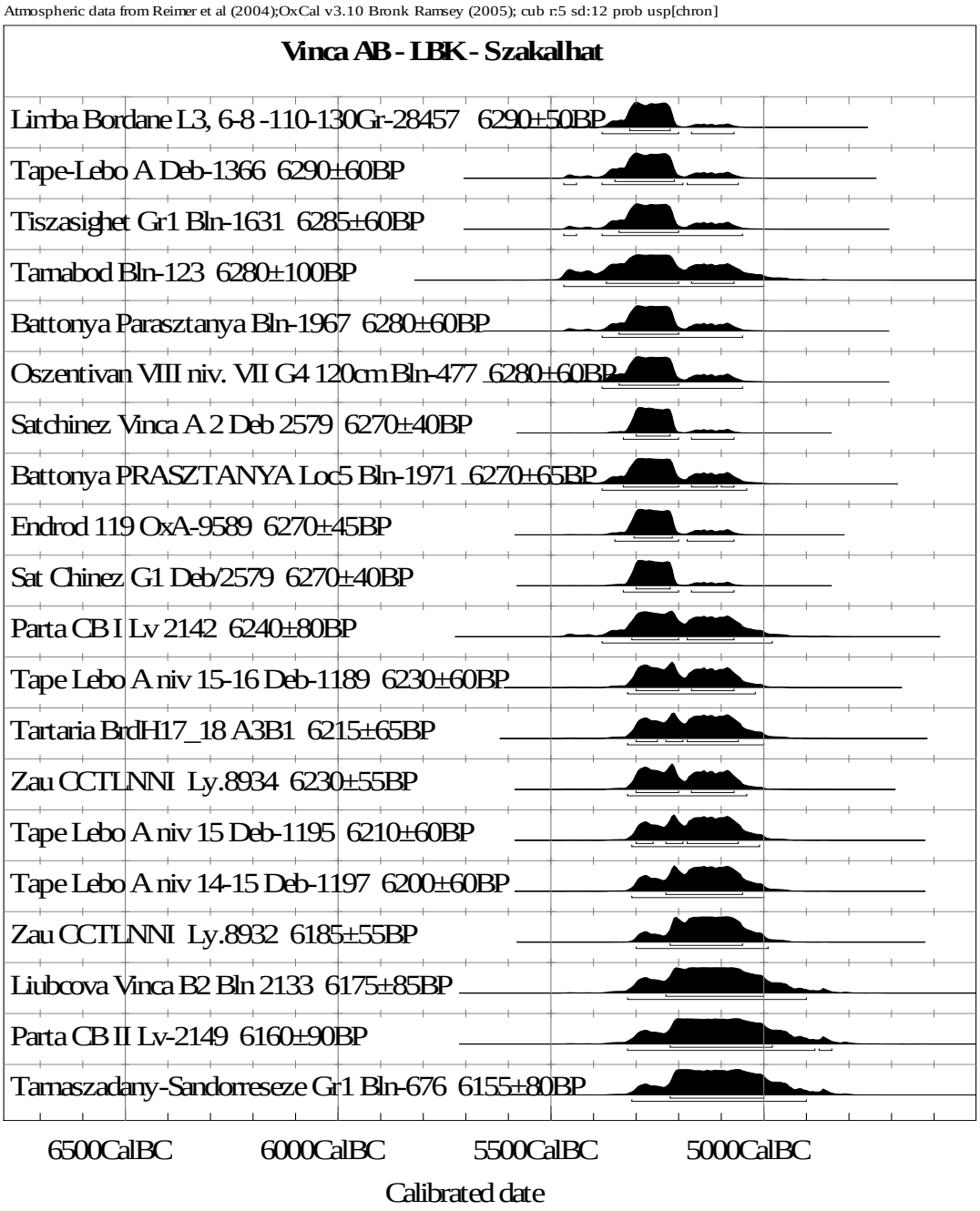


Fig. XII.5. Calibrated radiocarbon data reflecting Vinča A – LBK – developed Szakáhát.

Vinča A contacts with Linear pottery culture start around the Vinča A2 stage, as proven by Gornea discoveries[1698], and those in several other sites in Banat, discussed above[1699]. All other discoveries at Ószentiván VIII, Miercurea Sibiului date after 5500 and last until 5300, while some even until 5200 CAL BC. The earliest contacts with the earlier Linear pottery culture from the Southeastern Panonian Plain are connected with this chronological level.

[1698] Lazarovici Gh. 1977; 1979; 1987–1988a; 1992; 1993.
[1699] Lazarovici Gh. 1983/1984; 1990.

Before the appearance of Linear pottery culture (LBK) in Southeastern Hungary, the Szakálhát culture or Szakálhát – Lebö (Battonya, Tápé Lebö A, Berettyóújfalu, Tiszavasvári) culture developed. This culture is synchronic with Banat culture, based on a Starčevo-Criş background and with Vinča A cultural contribution (it can be observed at Ószentiván VIII and in other sites in the area)[1700].

These cultures appear after 5500 as indicated by fig. XII.4, before Vinča B phases, which are marked by discoveries at Limba – Bordane, respectively house L 3.

In the northern areas, in areas with obsidian from Hungary and particularly in Eastern Slovakia, there are communities with so called "musical notes" pottery. They circulate in the beginning this sort of raw material, while later on this type of material and especially the black obsidian (Tokay) and the smoky transparent one (Slovakian) are spread by the communities of the Bükk culture.

The relations between Linear pottery culture (LBK or AVK) and the Linear pottery culture with musical notes pottery (Notenkopf) are difficult to establish because the information regarding imports is unclear. This last civilization appears during SC IVB, but arrives in our areas much later, at Vinča B level. The fragment discovered by N. Vlassa (fig. IV.34b) was found together with Vinča B ceramic fragments. Its technology seems to be Vinča B, while its motives are characteristic for Zseliz culture, that is, recent Linear pottery culture in Slovakia. We do not know from what sort of paste the fragment discovered by I. Paul was made of (fig. IV.34a)[1701].

From a typological point of view, fragments decorated with musical notes have analogies at Vel'ké Kostolány[1702], Stúrovo Object 222/66[1703], that is, with middle and late phases of recent Linear pottery culture, before Zseliz culture and Hungarian discoveries (at Sárkeresytes – Péckmaleadomb, Sukaró – Tóradülö)[1704]. This type of Zseliz imports have been noticed in the Vinča site during Vinča B2 phase, at –6,6 m[1705]. Radiocarbon data for Linear pottery culture decorated with musical notes indicate that it starts earlier in Moldova, around 5300 CAL BC, based on samples from Târpeşti (Bln–2285; Bln–800)[1706].

The relations with Zau culture, based on Zau II imports discovered at Tărtăria and Lumea Nouă, as mentioned before, are related with Vinča A and B levels, until the contact with Foeni group starts. This group is considered to have a genetic role for Petreşti culture, or as representing one of its beginning stages. However, until Foeni discoveries are published on habitation levels and complexes we believe it is not good to mix the terms.

At Zau de Câmpie site, there are no imports or Vinča materials (cups with long thin leg, incised bands, or pleatings), as the settlement is too far away from the Vinča sites in the Alba Iulia – Sântimbru area along the Mureş River. We do not exclude the possibility of other sites containing these sorts of materials, but first they have to be discovered.

In the Repertory of Mureş County over 120 Neolithic sites are mentioned, while the ascription to the same period of 40–50 other sites is unsure. It is possible that many of them are similar to the Zau site, but the lack of specialists and investigations in the area do not offer further information. More to the North there are no Vinča B sites, but also no archaeological investigations. From Turda to the north and east spreads Zau culture. Nevertheless, at Zau de Câmpie there are two pit houses and some Turdaş pits, shwoing a Turdaş penetration, before the Foeni group.

The relative chronological data between Zau and Vinča cultures, mentioned several times, and data related with absolute chronology (upper fig. IV.32, and fig. XII.4–5) suggest very evident synchronisms[1707]. To the West there are connections with Banat culture and LBK – Szakálhát (fig. IV.33d).

Late Neolithic (Turdaş level) – Copper Age (Petreşti culture)

The small number of materials and the lack of complexes do not allow for an extensive analysis. At Uivar, there are some Turdaş imports, discovered in complexes for which precise stratigraphic situations were recorded[30]. Absolute chronology data suggest a longer habitation, but materials are only sporadic.

1700 Banner J., Párducz M. 1946–1948.

1701 Paul I. 2007, pl. IX//1; Suciu C. 2009, fig. 251.

1702 Pavúk J. 1969, pl. 3. 3, 6.

1703 Pavúk J. 1969, pl. 6/7, 9/3, 12.

1704 Makkay J. 1970, fig. 8, 11, 13.

1705 Pavuk J. 1969, p. 349, 353, pl. 2/1a–1b.

1706 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 462, fig. IIIh.2a.

1707 Lazarovici Cornelia-Magda, Lazarovici Gh. 2006, p. 430, fig. IIIe.26; Lazarovici Gh. 2009, p. 180, fig. 1; Drașovean Fl. 2009, p. 241–241, 257, pl. 5/1–2 from the complexes features 370/78, 853/3; disputeble is fig. 5/3 feature 518 that presents correspondents at Chişoda.

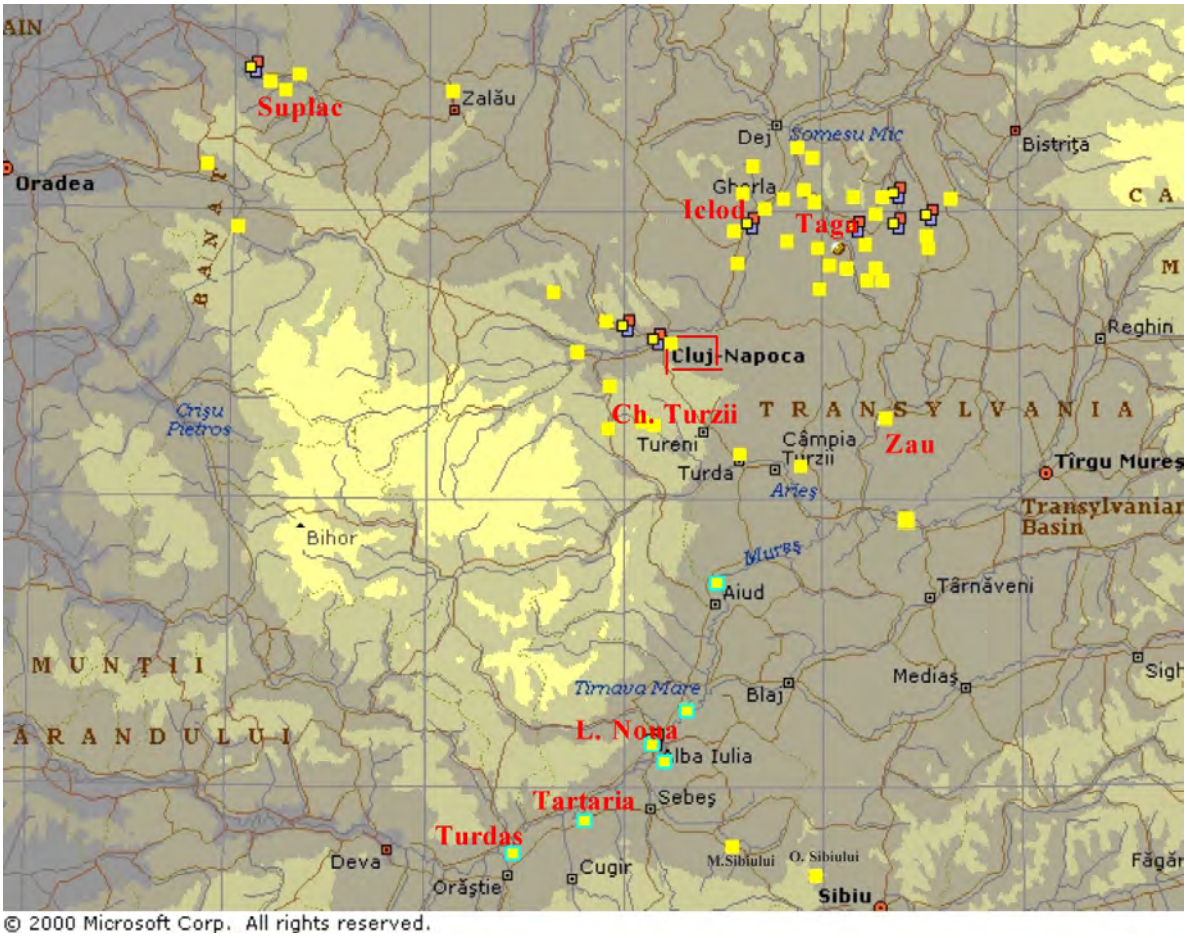


Fig. XII.6. Spread of Zau culture (yellow color) and imports in other sites (green frame). (Courtesy of Microsoft Corp.).

The existence of a Turdaş – Petreşti connection, as advocated from K. Horedt until I. Paul was not proved at Tărtăria. This hypothesis remains related only with the history of the research.

Connections with Bükk culture date from later stages (at Turdaş level as specified above, fig. IV.35b–36).

Connections with Tisza culture have been noticed only in the canyon of the Mureş River, from Mintia downstream, but at Tărtăria there are no similar discoveries and only few Turdaş materials. As a consequence, no extensive analyze is possible.

Precucuteni I relations with the entire central Transylvanian area are very well represented. Most of such materials have been discovered in the areal of Zau culture, but also at Turdaş, Foeni; Precucuteni II–III imports have been discovered in Petreşti culture[1708]. In Transylvania, Precucuteni imports are mentioned in over 20 sites.

While Petreşti culture was being formed, copper metallurgy was also starting. The birth of Petreşti culture, is indicated by several radiocarbon data from Lumea Nouă site, considered as Foeni 2[1709]; most of them covering the interval 4300–4200 CAL BC. Nevertheless, there are also earlier and later data, too. At Tărtăria, but in particular, at Turdaş, Petreşti culture succeeds both the Turdaş culture and the Foeni group. The genesis of Petreşti culture is related with both components, the southern one being marked by Foeni group.

Petreşti culture has many common elements with two other important civilizations Sălcuța and Gumelnița, during which copper metallurgy was flourishing. At the same chronological time, to the north and west there was the Tiszapolgár[1710] culture, contemporary with Cucuteni A3. The maximum

[1708] Lazarovici Gh., Cornelia-Magda 2010a.
[1709] Gligor M. 2009, pl. CLXXVIII–CLXXXI, CLXXXII–CLXIII; Drașovean Fl. 2009 foreword at Gligor M. 2009.
[1710] Diaconescu D. 2009 see here the problem related with methalurgy and the bibliography of this problem.

development of metallurgy was reached during Petreşti B phase until Bodrogkeresztúr – Toarte pastilate (Pill-shaped handles) when gold metallurgy was also flourishing.

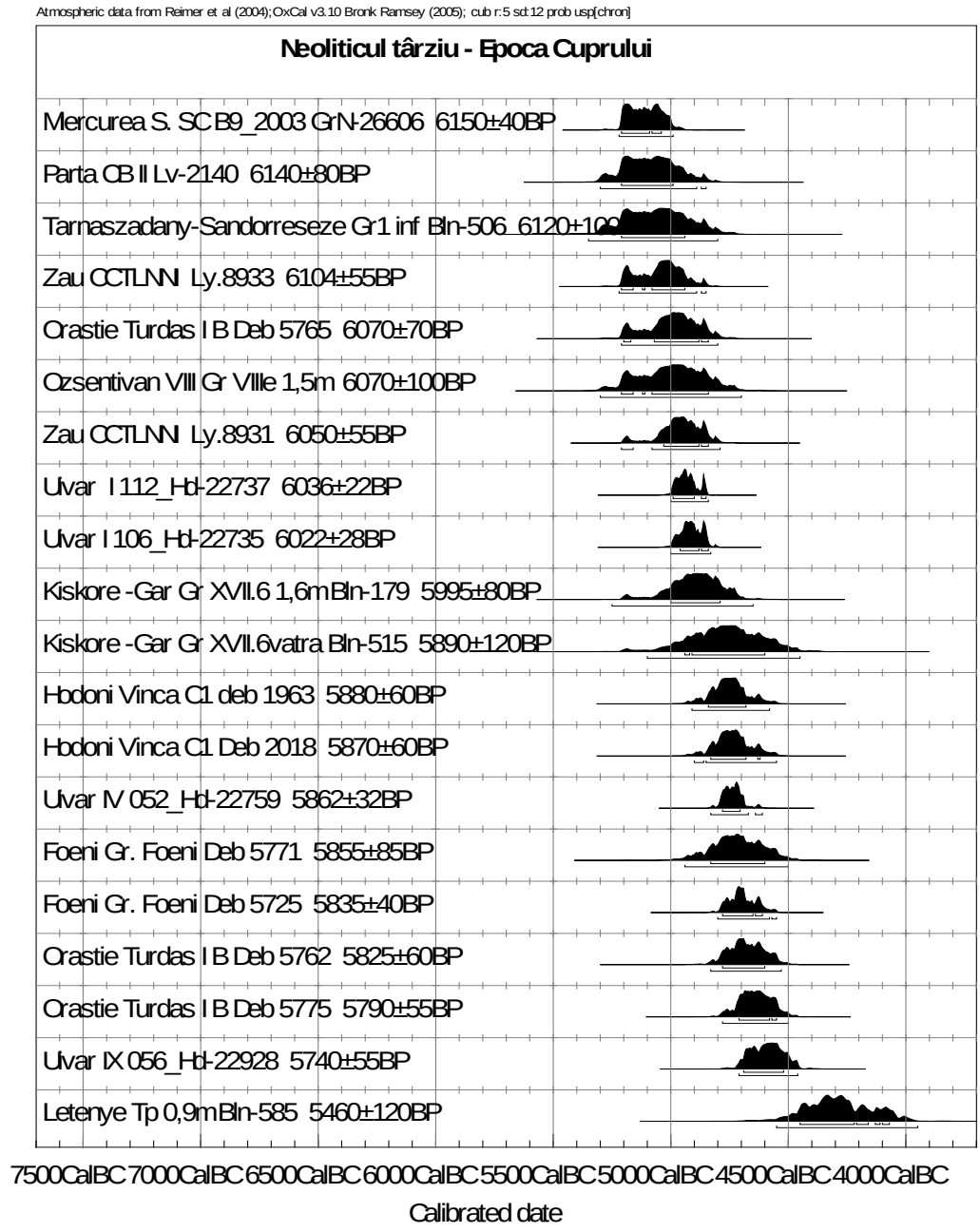


Fig. XII.7. Calibrated radiocarbon data for Late Neolithic- Copper Age.

In our opinion, the Foeni group, the late local Zau background and the Petreşti one are connected with the origin of the Ariuşd group, which transmitted black pottery, white painting, mineral mixture and several pot shapes (cups, stand-ups a.s.o.)[1711].

[1711] Lazarovici Gh., Cornelia-Magda 2010a.

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AB: *Analele Banatului,* I–IV 1928–1931; S.N. I 1981–, Muzeul Banatului, Timișoara.

Acta MM: *Acta Moldaviae Meridionalis*, Anuarul Muzeului Județean "Ştefan cel Mare", Vaslui.

ActaArchBp: Acta archaeologica Academiae Scientiarum Hungaricae, Budapest.

ActActaTS: Acta Terrae Septemcastrensis, "Lucian Blaga" University – IPCTE, Sibiu.

ActaMN: *Acta Musei Napocensis*, Cluj-Napoca.

ActaMP: *Acta Musei Porolisensis*, Zalău.

AFO: Archiv für Orientforschungen, Berlin-Graz.

Anuar MET: Anuarul Muzeului de Etnografie, Cluj.

Angustia: Angustia, Sfântu Gheorghe.

AO: *Arhivele Olteniei,* Craiova, S.V. and S.N.

Apulum: *Acta Musei Apulensis*, Alba Iulia.

ArchÈrt: Archaeologiai Értesitö, Budapest.

AŞUI: Analele Ştiințifice ale Universității "Alexandru Ioan Cuza" Iași.

BAI: Bibliotheca Archaeologica Moldaviae, Institutul de Arheologie Iași.

BAR IS: British Archaeological Reports, International Series, Archaeopress, Oxford.

BHAB: Bibliotheca Historica et Archaeologica Banatica, Timișoara.

BMA: Bibliotheca Musei Apulensis, Alba Iulia.

BMAntiquitatis: Bibliotheca Memoriae Antiquitatis, Piatra Neamț.

BMN: Bibliotheca Musei Napocensis.

BPI: *Bollettino di paletnologia italiana.*

BS: *Bibliotheca Septemcastrensis*, Sibiu.

Carpica: *Carpica,* Muzeul Județean de Istorie "Iulian Antonescu", Bacău.

CCAR: Cronica cercetărilor arheologice din România, Ed. Ministerul Culturii CIMEC, Serviciul arheologic; *CD;* www.cimec.ro

CCDJ: Cultură și civilizație la Dunărea de Jos, Călărași.

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JAMÉvk: Jósa Andreas Múzeum Évkönyve, Nyiregháza.

JbRGZM: Jahrbuch der Römisch – Germanischen Zentral Museums, Mainz.

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MemAntiq : Memoria Antiquitatis. Acta Musei Petrodavensis, Piatra Neamț.

MFMÉ: *A Móra Ferenc Múzeum Évkönyve*, Szeged.

M.P.K.: Mitteilungen der Prähistorischen Kommision der Österreichischen Akademie der Wissenschaften, Wien.

PBF: Prähistorische Bronzefunde, Stuttgard.

PMJH: *Publicația muzeului județean Hunedoara,* Deva.

PZ: *Prähistorische Zeitschrift*, Berlin,

RevMuz: Revista Muzeelor, București.

SCIV, SCIVA: *Studii și Cercetări de Istorie Veche; Studii și Cercetări de Istorie Veche și Arheologie*, Institutul de Arheologie, București.

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SMK: A Somogy megyei Múzeumok Közleményei, Kaposvár.

SPFFBU: Sborník Prací Filosofické Fakulty Brněnské University. Řada Archeologicko-klasická, Brno.

StComCaransebeș: Studii și Comunicări. Istorie, Caransebeș.

StComSibiu: Studii și Comunicări, Sibiu.

Studia UBB: Studia Universitatis Babeș-Bolyai, Cluj-Napoca.

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