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ABOUT THE SIGNS AND SYMBOLS… TRACING EUROPE'S EARLIEST SCRIPT: A 150-YEAR QUEST AND GHEORGHE LAZAROVICI'S INTELLECTUAL JOURNEY

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Abstract: *This article situates Gheorghe Lazarovici's contribution within the 150-year history of archaeo-semiotic research devoted to decoding and understanding an early script that flourished in south-central Europe from the Early Neolithic to the Late Copper Age. The pioneers of this intellectual effort included eminent archaeologists such as Baroness Zsófia Torma, Heinrich Schliemann, Flinders Petrie, Miloje M. Vasić, and V. Gordon Childe.*

After nearly a half century of neglect, the possibility that the Tărtăria tablets (ca. 5300 BCE), discovered in 1961, may represent the 'most ancient European library' has prompted a systematic re-evaluation of archaeological and semiotic materials accumulated in the museums of the Danube basin. Several projects have aimed to establish a comprehensive inventory of the so-called Danube script. A more sustained scholarly initiative began in the early 1970s, with Marija Gimbutas' conceptualization of the problem and Shan Winn's foundational corpus, later revised by Harald Haarmann. Gheorghe Lazarovici and Marco Merlini, expanded these efforts by creating extensive databases that enabled statistical queries and semiotic analyses.

The Danube script appears to have developed indigenously and to have played a significant role within the institutional, economic, and social networks of the advanced cultures that flourished along the Danube and its tributaries. Collectively, these societies can be described as a "civilization" comparable, in scale and complexity, to those of Mesopotamia, Egypt, China, the Indus Valley, and Iran.

This early experiment with literacy started around 5900–5800 BCE, within the Starčevo-Criş (Körös) IB/IC and Karanovo I horizon—roughly two millennia earlier than any other currently known form of writing. From its core area in the central Balkans, the script rapidly spread northward to the Hungarian Great Plain, westward to the Adriatic coast, southward into Macedonia and Thessaly, and eastward toward Ukraine. The Danube script flourished until approximately 3500–3300 BCE, when a period of economic and social upheaval led to its decline and eventual disappearance.

Gheorghe Lazarovici taught me that archaeology is not only a scientific discipline, but also a mindset—a way of opening a window onto reality and interpreting it through material traces that give form to our "duration" in time. As a distinguished Romanian and South-Eastern European mentor, his lifelong expertise combined what he called *the intelligence of making* with *the intelligence of conceptualizing*.

The first capacity encompassed mastery of traditional field expertise—excavation techniques, artefact analysis, and documentation—together with cutting-edge technological fluency (adapted to the limited resources of Romanian archaeology), including GIS, aerial photography, remote sensing (georadar and sonar), and 3D modelling and photogrammetry. It extended from the skillful coordination and management of excavations to the training of generations of promising archaeologists.

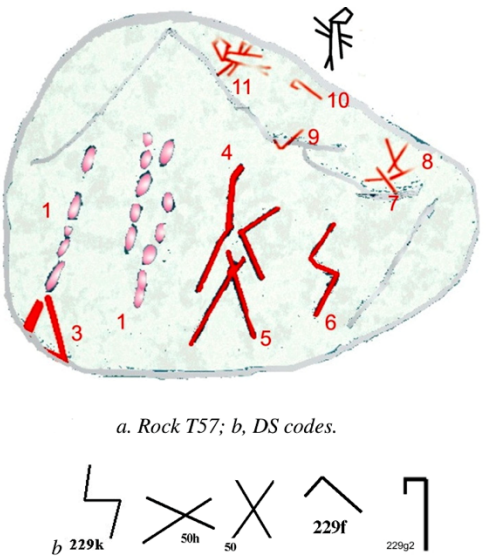
The second talent, grounded in an impressive cultural background, was directed toward investigating prehistoric ideologies and cultural matrices in the Carpathian–Danube area and the Balkans. This involved re-creating biographies and identities lost in time: reconstructing the histories and intimate relationships of the inhabitants of houses or villages under study, and understanding how they lived, celebrated, and suffered. Within this framework, Lazarovici's key interest lay in exploring and identifying the mentalities of those who preceded us in remote epochs from detecting faint epigraphic traces to interpreting what those distant messages sought to communicate to other humans or to superhuman powers, notably through the symbolism and script of the Danube Civilization.

Lazarovici's sustained effort, centered on decoding long-range communication, aimed to reconstruct a vast historical puzzle whose pieces form part of the uninterrupted flow of history from prehistory to modern times. This holistic yet scientifically rigorous approach is well illustrated by his research on Teasc Mountain (1383 m) in the Eastern Carpathians, near Borsec (Harghita County, Romania). Exploited since prehistory for alpine pasture, with routes linking Transylvania to Moldova, and for hunting and herd tracking, the site was surveyed by his team in 2005, 2009, and 2010. Using GPS mapping, photography, and drawings—building on original sketches by István Kovács (1914) and later by G. Bakó (1962)—the team catalogued 43 megalithic stones bearing markings, which were entered into a database for comparative analysis.

The density and variety of marked stones in a single highland location led Lazarovici to propose that, in prehistory, this flattened high plateau functioned as an open-air sanctuary for ritual gatherings in a natural setting. Statistical analysis of the incised or pecked signs and symbols revealed recurring patterns consistent with a long-lived communication system spanning from prehistory into later periods. Stylistic parallels were identified with the Neolithic and Copper Age script he termed the "Danubian Script", "Danube Script", or "Danube writing" (i.e., as it is now commonly called "Danube Script")—especially on cult objects—as well as with Paleolithic symbolic repertoires

described by André Leroi-Gourhan, and schematic depictions of possible astral bodies and constellations.

One example is rock T57 (GPS: N 46°54'20.8", E 25°30'52.4", elevation 1324 m). In its central part and to the left, Lazarovici and his team identified signs of the Danube Script: a K (no. 4); X-shapes (nos. 5, 7, 8); a S sign (no. 6); a V (no. 9); a hook (no. 10); and a stylized human figure outlined by double lines (no. 11).[1] Similar figures were found on other rocks, including Rocks I, III, V, VI, IX, 20, 36, 65, and 70.[2]



a. Rock T57; b, DS codes.

Fig. 1. Signs of the Danube Script on rock T57 of Teasc Mountain.

The site's ethnoreligious continuity is further supported by ancient traditions and local legends regarding the mountain's sacredness. Even today, shepherds carve inscriptions as acts of reverence, echoing practices rooted in remote antiquity.[3]

This article focuses on Gheorghe Lazarovici's contribution to the 150-year-long study of Neolithic and Copper Age communication systems and writing in southeastern Europe.

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[1] Gh. Lazarovici, "Megalithic Constructions and Megalithic Blocks with Sacred Signs and Symbols in the Northern Area of the Eastern Carpathians," in C.-M. Lazarovici and Gh. Lazarovici (eds.), *In Memoriam Gheorghe Dumitroaia* (Suceava: Editura Karl A. Romstorfer, 2017), 262, fig. 9.

[2] I. Kovács, "A tászoktetöi sziklakarczolatok," *Dolgozátok-Cluj* V (1914), 229–276; Gh. Lazarovici, C.-M. Lazarovici, S. Colesniuc, and S. Angeleski, "Muntele Teasc. Despre sanctuarele în natură (I)," *Apulum. Acta Musei Apulensis* 51 (Alba Iulia: Muzeul Național al Unirii, 2014), 25–80.

[3] Gh. Lazarovici, C.-M. Lazarovici, S. Colesniuc, and S. Angeleski, "Muntele Teasc. Despre sanctuarele în natură (I)," *Apulum. Acta Musei Apulensis* 51 (Alba Iulia: Muzeul Național al Unirii, 2014), 25–80; Gh. Lazarovici, C.-M. Lazarovici, S. Colesniuc, and S. Angeleski, "Muntele Teasc. Despre sanctuarele în natură (II)," *Apulum. Acta Musei Apulensis* 52 (Alba Iulia: Muzeul Național al Unirii, 2015), 85–111.

1. Origins of an Inquiry: First Traces of Script-Like Symbols in the Turdaş and Vinča Horizons

1.1. Imported Communication Technology or Indigenous Innovation? Early Readings through Near Eastern, Minoan, and Classical Greek Lenses

From the late 19th to the early 20th century, the discovery of signs resembling alphabetic characters in the middle and lower Danube basin drew the attention of leading archaeologists, historians, linguists, epigraphists, and philologists. Finds from Turdaş (Romania) and Vinča (Serbia), and later from other Danube–Balkan sites, included pottery sherds and artefacts incised or painted with marks suggestive of writing. Scholars such as Schliemann, Evans, Petrie, Vasić, and Childe compared these signs to scripts from what were then considered the "more civilized" regions of Mesopotamia, the Levant, and the eastern Mediterranean. These comparisons reflected the classical education and diffusionist assumptions of the time, which—often on tenuous chronological grounds—envisaged civilization spreading from the southeast towards the north and west.[4]

The pioneer in this field was Baroness Zsófia Torma, who from 1874 collected material from Turdaş and Valea Nandrului, on the Mureș River. Between 1875 and 1891 she catalogued approximately 11,000 artefacts of the Turdaş culture, despite local superstitions that disturbing prehistoric remains could bring misfortune. Her assemblage comprised female figurines, vessels, stone tools, and pottery fragments, over 300 of which bore clearly intentional pictographic, abstract, or linear signs. Many of these signs are known only from her unpublished but meticulously illustrated notebook,[5] partially edited by Márton Roska.[6]

Considering the signs and symbols found on the artifacts in her collection as belonging to an early system of writing—named by her "Turdaş script"[7] — Torma proposed a novel approach to interpreting the Southeast European Neolithic. She compared the Turdaş signs with those from Asia Minor (including Troy, Caria, and Pamphylia) and the Cypriot syllabary, later extending her

[4] M. Merlini, "The Danube script as a tool of ancestry ideology in a kinship-based society," in Z. Maxim, J. Marler, and V. Crișan (eds.), *The Danube Script in Light of the Turdaş and Tărtăria Discoveries* (Cluj: The National History Museum of Transylvania and the Institute of Archaeomythology, 2009), 77.

[5] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 272–289; J. Makkay, *A tartariai leleteck* (Budapest: Akadémiai Kiadó, 1990), and bibliography therein.

[6] M. Roska, *A Torma Zsófia Gyüjtemeny* (Cluj: Minerva Irodalmi és Nyomdai Műintézet R.-T., 1941).

[7] Z. Torma, "A tordosi őstelep," in G. Téglás (ed.), *Hunyadvármegye Története (Hunyadvármegye földejének története az őskortól a honfoglalásig)* (Budapest: Singer és Wolfner Könyvkereskedés és Nyomda Rt., 1902), 23–33.

analysis to Mesopotamian parallels, particularly cuneiform characters.[8] Believing she had identified "Babylonian cultural elements" at Turdaş, she pointed to inscriptions that appeared to name Sumerian deities.[9] Drawing on seminal works by Jules Oppert and Johann Nepomuk Strassmeier, Torma recorded in her diary a series of cuneiform characters and their meanings, noting their resemblance to the signs and symbols found on Turdaş pottery.[10] Her efforts were directed toward deciphering these symbols through the lens of cuneiform script. Ultimately, she concluded that elements of Babylonian art and culture—including writing technology—had been transmitted to the Thracian inhabitants of Troy and Turdaş, and that these influences persisted in the folkloric signs and symbols used by Hungarian, German, and Romanian peasants, because they resemble those found on the Turdaş pottery.[11]

The notion of a Turdaş script attracted international interest, though much of the site was later lost to flooding. Heinrich Schliemann, famed for his work at Troy, was aware of Torma's discoveries and expressed interest—documented in letters held at the Muzeul Național de Istorie a Transilvaniei in Cluj-Napoca[12]—in

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[8] . Z. Torma, *Neolith kőkorszakbeli telepek Hunyad-megyében* (Cluj: Érdély Múzeum, 1879), 129–155, 190–211; Z. Torma, "Hunyad vármegye őzkori történelméhez," *A Hunyadmegyei Történelmi és régészeti Társulat Évkönyve* (1882), 19–44; see also A. László, "Un pionnier de la réchérche de la civilisation Turdaş–Vinča: Zsófia von Torma," *Banatica* 11 (1991), 43.

[9] In her diary, Zsófia Torma selected and transcribed a series of signs and symbols engraved on Oriental cylinders examined by Joachim Menant in 1883, noting their recurrence on pottery and figurative art from the archaeological site of Turdaş. Of particular interest is a cylinder housed in the British Museum which, according to Menant, bears an invocation (J. Menant, *Les pierres graves de la Haute-Asie: Recherches sur la glyptique orientale*, vol. I (Paris: Maisonneuve et Cie, 1883), 187; L. Coltofean, "Unveiling Zsófia Torma. The Diary of a Woman, an Archaeologist and a Visionary," in J. Marler (ed.), *Fifty Years of Tărtăria Excavations. Festschrift in Honor of Gheorghe Lazarovici on the Occasion of His 73rd Birthday* (Suceava: Institute of Archaeomythology, 2014), 269.)

[10] . J. Oppert, *Expédition scientifique en Mesopotamie exécutée par ordre du gouvernement de 1851 à 1854*, vols. 1–2 (Paris: Imprimerie Impériale, 1858–1863); J. N. Strassmeier, *Alphabetisches Verzeichniss der assyrischen und akkadischen Wörter: der Cuneiform inscriptions of western Asia*, vol. II, vols. 1–6 (Leipzig: J. C. Hinrichs, 1882–1886).

[11] L. Coltofean, "Unveiling Zsófia Torma. The Diary of a Woman, an Archaeologist and a Visionary," in J. Marler (ed.), *Fifty Years of Tărtăria Excavations. Festschrift in Honor of Gheorghe Lazarovici on the Occasion of His 73rd Birthday* (Suceava: Institute of Archaeomythology, 2014), 259.

[12] H. Schmidt, *H. Schliemann's Sammlung trojanische Altertümer* (Berlin: A. Asher & Co., 1902); H. Schmidt, "Tordos," *Zeitschrift für Ethnologie* 35 (1903), 457 ff.; C. Renfrew, "The Place of the Vinča Culture in European Prehistory," *Zbornik Narodnog Muzeja* VI (1970), 45.

comparing Turdaş signs with those on Trojan vases and spindle whorls.[13] In 1898, Paul Reinecke explored similarities between Troy and Turdaş pottery,[14] though later criticized by János Makkay as imprecise.[15] Comparable signs were also noted in 1896 on pottery from the sanctuary at Phylakopi (Melos, Cyclades).[16]

In the early 20th century, other prominent figures engaged with the problem. Arthur Evans, having found similar marks on clay tablets and architectural blocks at Knossos, initially considered the Turdaş signs remnants of a primitive writing system—possibly an early form of Greek—before revising his view.[17] Flinders Petrie identified analogous marks on late Predynastic and Protodynastic Egyptian pottery, publishing his observations in 1912.[18]

Between 1908 and 1926, Miloje M. Vasić excavated Vinča and nearby mounds, uncovering vessels and figurines with geometric motifs akin to those from Turdaş. He liked them to inscriptions on archaic Greek pottery from Troy, Melos, and Lesbos, and posited that the incised marks at Vinča—found in a stratified deposit nearly 10 m deep—belonged to an early Greek colony of the 7th–6th centuries BCE, akin to those in southern Italy.[19] He regarded some as letter-forms or potters' marks, a view consistent with the graphic and conceptual parallels he

[13] M. Merlini, "The Danube script as a tool of ancestry ideology in a kinship-based society," in Z. Maxim, J. Marler, and V. Crișan (eds.), *The Danube Script in Light of the Turdaş and Tărtăria Discoveries* (Cluj: The National History Museum of Transylvania and the Institute of Archaeomythology, 2009), 105.

[14] P. Reinecke, "A todorosi östelep agyagmüveiröl," *Archeologiai Értesitő* 18 (1898), 97–103, fig. 8.

[15] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 10, note 11.

[16] Society for the Promotion of Hellenic Studies, "Proceedings of the Society for the Promotion of Hellenic Studies. Session 1903–1904," *The Journal of Hellenic Studies* 24 (1904).

[17] A. J. Evans, "Further Discoveries of Cretan and Aegean Script: with Libyan and Proto-Egyptian Comparison," *The Journal of Hellenic Studies* 17 (1897), 391, chart on p. 386; A. J. Evans, "Significance of the Pottery Marks," in *Excavations at Phylakopi in Melos*, British School of Athens, Supplementary Paper 4 (London: The Society for the Promotion of Hellenic Studies, 1904); A. J. Evans, *Scripta Minoa I* (Oxford: Oxford University Press, 1909); M. S. F. Hood, "The Tartarian Tablets," *Antiquity* 41 (1967), notes 14 and 15.

[18] . W. F. C. Petrie, *The Formation of the Alphabet* (London: Macmillan and Co., Limited, 1912); R. E. Downs, *The Religion of the Bare'e-Speaking Toradja of Central Celebes* (The Hague: Uitgeverij Excelsior, 1953).

[19] M. Vasić, "Die Hauptergebnisse der präistorischen Ausgrabung in Vinča im Jahre 1908," *Prähistorische Zeitschrift* II (1910), 23–39.

drew with archaic Greek letters.[20] At that time, the idea of independent, pre-Classical literate cultures in the Danube basin was not entertained.
The proximity of Vinča and Turdaş—about 200 km apart and linked by the Mureș and Tisza valleys—favored a shared cultural horizon, reflected in their comparable signs. Although fewer in number than at Turdaş,[21] the Vinča inscriptions broadened the geographic scope of the phenomenon within the Vinča cultural koine.[22] After decades of excavation, Vasić concluded that Minoan and Near Eastern scripts could have influenced the similar graphemes found in the region, coining the term "Vinča script."[23] In the prevailing view, the early farmers of the Danube basin could not have developed literacy independently; the earlier hypothesis of Classical Greek influence was thus supplanted by the idea of impulses from the older Minoan and Near Eastern civilizations.

1.2. From Chance Finds to Structured Sign Lists of a Prehistoric Script: The Pioneering Efforts

In the earliest studies of ancient literacy, the incised marks from Vinča and Turdaş—alongside those from Troy and Knossos—were generally treated as isolated occurrences: single, unique signs on individual artefacts. Typically placed on the undersides or lower sides of vessel bases, these marks were interpreted as potters' or owners' symbols. Yet some scholars noted that, at Troy, signs occasionally appeared in groups; as early as 1874, such groupings were tentatively read as primitive forms of Greek writing. By the early 20th century, grouped signs were also recognized at Turdaş, their shapes recalling inscriptions from Troy, Crete, and Egypt.[24] This fostered the hypothesis that they might represent more than ownership marks—perhaps an embryonic writing system.

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[20] M. Vasić, "Die Hauptergebnisse der präistorischen Ausgrabung in Vinča im Jahre 1908," *Prähistorische Zeitschrift* II (1910), 23–39; M. Vasić, *Preistoriska Vinča I–IV* (Belgrade: Serbian Academy of Sciences and Arts, 1932–1936).

[21] Vl. Milojčić, "Die Tontafeln von Tărtăria und die absolute Chronologie des Mitteleuropäischen Neolithikums," *Germania* 43 (1965), 261, notes 3 and 21.
[22] M. Vasić, *Preistoriska Vinča I–IV* (Belgrade: Serbian Academy of Sciences and Arts, 1932–1936).
[23] S. Winn, *Pre-writing in Southeastern Europe: The Sign System of the Vinča Culture ca. 4000 BC* (Calgary: Western Publishers, 1981); S. Winn, "The Old European Script. Further Evidence, Economic and Religious Stimuli," Prehistory Knowledge Project, Rome, 2004; S. Winn, "The Inventory of the Danube Script (DS)," Prehistory Knowledge Project, Rome, 2004; A. Starović, "Contextual Analysis of the Vinča Signs in Serbia: Symbols of Neolithic Spoken Language," in J. Marler and M. Robbins Dexter (eds.), *Signs of Civilization* (Novi Sad: The Institute of Archaeomythology and the Serbian Academy of Sciences and Arts, 2009).
[24] H. Schmidt, "Tordos," *Zeitschrift für Ethnologie* 35 (1903).

On this premise, Hubert Schmidt compiled a list of 17 Turdaş signs for comparison with inscriptions from "prehistoric" Egypt (Proto-Dynastic and XII Dynasty), Troy, and Aegean vessels from Phylakopi (Melos). He even attempted a speculative conversion table linking Turdaş signs to presumed alphabetic sounds.[25]

V. Gordon Childe later confirmed that Vinča and Turdaş belonged to the same cultural horizon. In 1927, he renewed interest in parallels between their signs and early literacy in Predynastic Egypt and Troy,[26] situating them within his broader concept of a "Danube Civilization," referring to the Neolithic cultural horizon along the Danube Valley and beyond.[27] Childe assembled a comparative set of 13 Vinča–Turdaş signs (now classed as Vinča A–B2), largely echoing Schmidt's corpus;[28] only six signs overlapped, underscoring the absence of a consistent semiotic methodology to distinguish true script signs from decorative motifs or to identify variants of the same sign. For decades, researchers could not establish whether the Danube Civilization possessed a coherent sign inventory.

Around the same time, Laurence Austine Waddell produced his own list, extending comparisons beyond Predynastic Egyptian and Trojan examples to include Mesopotamian proto-cuneiform (Jemdet Nasr pictographs).[29] He interpreted the Danube Valley signs as "owners' marks," akin to those in early Sumerian writing. His conclusions, however, were weakened by poor contextual understanding[30] and a flawed chronology.[31]

In 1934, Nedelcho Petkov advanced the idea of prehistoric script signs in Bulgaria, analyzing a spindle-whorl from Obreshta (near Sofia) incised with 15 non-repetitive signs. He identified a pictogram resembling a boat ( )—paralleled on a black cultic disc from Turdaş—and proposed a vertical reading from top to bottom.[32]

Later, in 1969, linguist Vladimir Ivanov Georgiev sought Minoan connections, noting similarities between signs on two Bulgarian prehistoric artefacts—the

[25] H. Schmidt, "Tordos," *Zeitschrift für Ethnologie* 35 (1903), 459, fig. 41.

[26] V. G. Childe, "The Danube Thoroughfare and the Beginnings of Civilization in Europe," *Antiquity* 1, no. 1 (1927), 83, 88; V. G. Childe, *The Danube in Prehistory* (Oxford: Oxford University Press, 1929), 31, 33.

[27] V. G. Childe, *The Dawn of European Civilisation* (London: Kegan Paul, Trench, Trubner & Co., Ltd., 1925).

[28] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 10.

[29] L. Waddell, *Makers of Civilization in Race and History* (London: Luzac and Company, 1929), 599 ff.

[30] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 10.

[31] S. Winn, *Pre-writing in Southeastern Europe*, 4.

[32] N. Petkov, "Predistoricheski izsledvaniya na Sofiyskoto pole i blizkite mu okolnosti," *Godishnik na Narodnija Muzej* 6 (1932–1934), 415, fig. 263a.

Gradešnica shallow receptacle and the Karanovo stamp seal—and Cretan scripts.[33]

In 1940, classical philologist M. A. Georgievskij, working with Miloje Vasić, compiled the first systematic list of Vinča signs from Vasić's excavations.[34] He attempted to distinguish "ruler's" symbols from inscriptions, but his work suffered from the omission of archaeological context, inadequate semiotic analysis on the inscribed artifacts and the position of the signs on them,[35] and frequent conflation of decorative or ownership marks with genuine script signs ("*signes véritables*").[36]

In 1961, Jovan Todorović and Aleksandrina Cermanović published over 100 inscribed fragments from Banjica (a suburb of Belgrade), comprising roughly 350 signs "similar to letters and inscriptions." They produced a systematic catalogue,[37] attributing most examples to the late Vinča C–D phases, though including some from Vinča A and B.[38] They argued for a script of predominantly ideographic character, encoding nouns, objects, quantities, and even abstract concepts. Despite its scope, their study attracted little attention from linguists, palaeographers, or epigraphists.[39]

By the mid-20th century, after nearly a century of intermittent enthusiasm, scholarly engagement with Danube–Balkan signs declined. Overreliance on superficial visual comparisons with scripts from other regions, combined with the absence of secure chronological frameworks, led to fatigue. Childe himself eventually abandoned the subject. As academic interest waned, the "Vinča

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[33] V. I. Georgiev, "Un sceau inscrit de l'époque chalcolithique trouvé en Thrace," *Studi Micenei ed Egeo-Anatolici* 9 (1969), 11; V. I. Georgiev, "Pismenostta vyrhu glinenata plochka ot s. Gradeshnica," *Archeologija* 3 (1970), 8.

[34] M. A. Georgievski, "Pismeni znaci i natpisi iz Vinče," *Sbornik Jugoslaviji* III (1940); M. Merlini, "The Danube script as a tool of ancestry ideology in a kinship-based society," in Z. Maxim, J. Marler, and V. Crişan (eds.), *The Danube Script in Light of the Turdaş and Tărtăria Discoveries* (Cluj, 2009), 158.

[35] S. Winn, *Pre-writing in Southeastern Europe*, 5.

[36] E. Masson, "L'écriture dans les civilisations danubiennes néolithiques," *Kadmos* 23 (1984), 92.

[37] J. Todorović and A. Cermanović, *Banjica, naselje vinčanske culture* (Belgrade: Muzej grada Belgradea, 1961); M. Merlini, "The Danube script as a tool of ancestry ideology in a kinship-based society," in Z. Maxim, J. Marler, and V. Crişan (eds.), *The Danube Script in Light of the Turdaş and Tărtăria Discoveries* (Cluj, 2009).

[38] J. Todorović and A. Cermanović, *Banjica, naselje vinčanske culture* (Belgrade: Muzej grada Belgradea, 1961), 82.

[39] M. Merlini, "The Danube script as a tool of ancestry ideology in a kinship-based society," in Z. Maxim et al. (eds.), *The Danube Script in Light of the Turdaş and Tărtăria Discoveries* (Cluj, 2009), 158.

script" persisted mainly in amateur circles, where, as Gheorghe Lazarovici has noted, it sometimes inspired the production of counterfeit artefacts.[40]

2. The Tărtăria Tablets: The Icon for the Question of Neolithic Literacy in Europe

2.1. Discovery, Debate, and the Polarization of Scholarly Competing Narratives

Although comparable signs had been recorded since the late 19th and early 20th centuries at major prehistoric sites such as Turdaş, Vinča, Valea Nandrului, Gradešnica, and Karanovo, the 1961 discovery of three inscribed[41] tablets at Tărtăria, Romania—near Turdaş in Alba County—marked a decisive turning point.[42] Found in a secondary burial context, the tablets quickly became emblematic of the so-called Danube Script[43] and the Danube Civilization.[44]

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[40] Gh. Lazarovici, *Neoliticul Banatului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1979).

[41] Sings are incised, not impressed as claimed by some authors. See for instance: R. Tringham, *Hunters, Fishers and Farmers of Eastern Europe 6000–3000 BC* (London: Hutchinson University Library, 1971), 114.

[42] V. Moga and H. Ciugudean (eds.), *Repertoriul arheologic al judeţului Alba* (Alba Iulia: Muzeul Naţional al Unirii Alba Iulia, 1995).

[43] The overarching term 'Danube Script/Danube signs' encompasses what has been referred to as the 'Vinča signs' or 'Vinča script,' which should be strictly confined to the Vinča culture that emerged within the core area of the Danube basin (S. Winn, *The Signs of the Vinča Culture: An Internal Analysis; Their Role, Chronology and Independence from Mesopotamia* (Ann Arbor: University Microfilms, 1973); S. Winn, *Pre-writing in Southeastern Europe: The Sign System of the Vinča Culture ca. 4000 BC* (Calgary: Western Publishers, 1981); M. Merlini, *La scrittura è nata in Europa?* (Rome: Avverbi Editore, 2004), 54).The Danube Script extends both temporally (from the Early Neolithic to the Late Copper Age) and spatially (covering the entirety of southeastern Europe). It originated in the central Balkan region and underwent an indigenous development. This writing system quickly developed northward to the Hungarian Great Plain, westward to the Adriatic coast, southward into Macedonia and northern Greece, and eastward toward Ukraine where it had a related script in the Cucuteni-Trypillia culture (Merlini 2007b; Merlini and Velichkov 2009). The Danube Script thrived until approximately 3500–3300 BCE, when a significant social upheaval occurred. Some scholars attribute this disruption to an invasion by new populations, while others propose the emergence of a new ruling elite.

[44] I use the term 'Danube civilization' to address the Neolithic and Copper Age societies of southeastern Europe. This terminology aligns with the recognition that the Danube River and its tributaries facilitated the emergence of an institutional, economic, and social network of advanced Neolithic and Copper Age cultures.

The find ignited intense scholarly debate over the geographic origins and chronological development of prehistoric cultures in southeastern and central Europe. It also lent weight to the hypothesis that Neolithic and Copper Age societies of the Danube basin may have developed an early form of writing. If the dating proposed by Marija Gimbutas (c. 5200–5000 BCE) is accepted,[45] the tablets would predate analogous developments in the Near East by roughly two millennia—raising the provocative possibility that the earliest experiments with writing did not originate in Mesopotamia, and that the invention of writing may have occurred earlier than the conventional 3500–3000 BCE timeline.[46]

Since their discovery, the Tărtăria tablets have remained at the center of contentious debates, focusing on four interrelated issues:

a) *Origin and chronology of writing technology* – Do the signs constitute a genuine script, and if so, what are the implications for the global history of writing?

b) *Synchronization of prehistoric timelines* – The dating of the tablets exposed tensions between absolute and relative chronologies; radiocarbon results suggest that European writing technology could predate the earliest Sumerian cuneiform and Egyptian hieroglyphs by at least twenty centuries.

c) *The diffusionist paradigm and the* Ex Oriente-Lux *model* – Evidence for a local, linear evolution of Neolithic and Copper Age cultures challenges the primacy of migration and cultural diffusion from the Near East.

These cultures were characterized by their agrarian lifestyles, sophisticated technologies (such as weaving, pottery, and metallurgy), writing technology, and a complex belief structure, among other features. The script represents only one—albeit significant—marker of the elevated status of this civilization.

The term 'Danube civilization' is not synonymous with the expression 'Old Europe' coined by Marija Gimbutas (Gimbutas 1974 [1982], 1991). The scholar employed 'Old Europe' to denote a broad geographic area that she treated as a relatively undifferentiated cultural unit. At times, she expanded this region to include areas stretching from the Aegean and Adriatic, including the islands, reaching as far north as Czechoslovakia, southern Poland, and western Ukraine (Gimbutas 1974 [1982]: 17). On other occasions, she extended the boundaries of the 'Old Europe' "from the Atlantic to the Dnieper" (Gimbutas 1989: XIII).

[45] M. Gimbutas, *The Language of the Goddess* (San Francisco: Harper & Row, 1989), 233.

[46] In 1993, Sorin Paliga attempted to decipher the signs on the round tablet by applying the phonetic values of Cretan or Cypriot syllabaries, starting from the observation that the signs exhibit a typical syllabic system and that the division into four compartments suggests a ritual meaning (S. Paliga, "The Tablets of Tărtăria – an Enigma? A Reconsideration and Further Perspectives," *Dialogues d'histoire ancienne* 19, no. 1 (1993), 124 ff.).

d) *The cradle of European civilization*. – Should the Danube basin's Neolithic and Copper Age cultures be recognized as formative agents in Europe's cultural history, thereby revising traditional narratives?[47]

The dating of the tablets has been particularly contentious. Paradoxically, the Tărtăria evidence has both weakened the skepticism of some scholars regarding the existence of writing in the Danube Civilization and reinforced the doubts of others. This ambivalence stems largely from inconsistencies in the excavation records of Nicolae Vlassa, the archaeologist responsible for the find. Vlassa reported that the tablets were recovered from loess deposits, but the precise cultural horizon to which they belonged remained uncertain for many years.

2.2. The Tărtăria Signs do not belong to the Danube Script, being Crypto-Esoteric Symbols

At the time of their discovery, the excavating archaeologist did not appear to regard the pit as particularly significant. Although *Antiquity* described the finds as "carefully published," the report contained notable shortcomings,[48] and for decades the tablets were not treated as securely dated archaeological artefacts.[49] Only between 2004 and 2011 did the work of Gheorghe Lazarovici and Marco Merlini address the major controversies, resolving many of them[50] and making great strides toward an academic consensus on the authenticity of the tablets.

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[47] M. Merlini, *La scrittura è nata in Europa?* (Rome: Avverbi Editore, 2004).

[48] See the introductory note to M. S. F. Hood, "The Tartarian Tablets," *Antiquity* 41 (1967), 99.

[49] For an exhaustive summary of the report published in 1963 by Vlassa and the international discussion on the relations between the Orient and southeastern Europe in prehistory, fueled by the discovery of the tablets, see S. Paliga, "The Tablets of Tărtăria – an Enigma? A Reconsideration and Further Perspectives," *Dialogues d'histoire ancienne* 19, no. 1 (1993), 113 ff.

[50] M. Merlini, *La scrittura è nata in Europa?* (Rome: Avverbi Editore, 2004); M. Merlini, "Challenging Some Myths about the Tărtăria Tablets," *The Journal of Archaeomythology* 4, no. 1 (2008); M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009); Gh. Lazarovici and M. Merlini, "New Archaeological Data Refering to Tărtăria Tablets," *Documenta Praehistorica* 32 (2005), 205–219; Gh. Lazarovici and M. Merlini, "New Information and the Role of the Tărtăria Discoveries," in J. Marler (ed.), *The Danube Script: Neo-Eneolithic Writing in Southeastern Europe* (Sebastopol: Institute of Archaeomythology, 2008), 39–51; Gh. Lazarovici and M. Merlini, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 111–196; Gh. Lazarovici and M. Merlini, "Tărtăria Tablets: Fresh Evidence on an Archaeological Thriller," in L. Nikolova, M. Merlini, and A. Comșa (eds.), *Circumpontica in Prehistory* (Oxford: Archaeopress, 2009); Gh. Lazarovici, C.-M. Lazarovici, and M. Merlini, *Tărtăria and the Sacred Tablets* (Cluj-Napoca: Editura Mega, 2011).

Through direct microscopic examination, the researchers identified the precise signs engraved on the tablets.[51] They also reassessed Vlassa's excavation profiles. Radiocarbon analysis of human bones from the ritual pit-grave containing the tablets yielded a date of c. 5400 cal BCE, corresponding to the Vinča A2 phase.[52] The remains belonged to a woman of about 55 years, interpreted as a high-status magic-religious practitioner—dubbed "Milady Tărtăria."[53] She was buried in a ritual context with the inscribed tablets and a rich assemblage of cult objects, tools, adornments, and identifiers, including intentionally broken figurines (some phallic), a ritually fragmented *Spondylus* bracelet, and an anchor-shaped pendant resembling horns of consecration, all consistent with the Vinča A cultural horizon.[54]

Lazarovici and Merlini reconstructed the structure of Milady Tărtăria's former pit-house, transformed into a secondary ritual grave.[55] This composite burial formed a sacralized unity within a mortuary program of re-deposition, intended both to prepare the deceased for the realm of the ancestors and to consecrate her as a new ancestor for the Vinča A settlement—thereby elevating her posthumous status.

In life, she had served as a ritual specialist mediating between the living and the ancestral dead, engaging with supernatural forces, and performing liturgies centered on sexuality and fertility, as evidenced by her ritual toolkit.[56] Her role was integral to the cohesion of an inclusive community with moderate leadership

[51] Gh. Lazarovici, C.-M. Lazarovici, and M. Merlini, *Tărtăria and the Sacred Tablets* (Cluj-Napoca: Editura Mega, 2011), 162 ff.

[52] Radiocarbon data for the cult pit B1 (Milady Tărtăria bones) dates before 5400 CAL BC, corresponding to a Vinča A1-A2 stage. 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). See Gh. Lazarovici, C.-M. Lazarovici, and M. Merlini, *Tărtăria and the Sacred Tablets* (Cluj-Napoca: Editura Mega, 2011), 224, 364.

[53] M. Merlini, "Semiotic Approach to the Features of the 'Danube Script'," *Documenta Praehistorica* 32 (2005), 233–251.

[54] Gh. Lazarovici, C.-M. Lazarovici, and M. Merlini, *Tărtăria and the Sacred Tablets* (Cluj-Napoca: Editura Mega, 2011), 135 ff.

[55] Lazarovici Gh., Lazarovici C.-M., and Merlini 2011: 213; Merlini 2012.

[56] M. Merlini, "The Gradešnica Script Revisited," *Acta Terrae Septemcastrensis* 5 (2006), 25–78.

structures.[57] After death, she was venerated as a guardian ancestor with continuing obligations to the living.[58]

A growing number of scholars regard the Transylvanian signs as a very early form of literacy. However, the recognition of these marks as script—or as script-like—is often spontaneous and sustained without critical examination. Can the semiotic elements support the assertion that they constitute a form of writing?

Significant script-like features on the Tărtăria tablets can be inferred through technical analysis, which has demonstrated that the marks are not randomly produced but rather created according to precise semiotic conventions. The signs appear intentional, distinctive, elementary, and highly stylized. They are rendered in conventional shapes that conform to a systematic and coherent inventory. Within the same inscription, the signs exhibit consistent stylistic and dimensional characteristics, although they are incised with varying degrees of pressure.

Merlini applied further semiotic criteria and statistical filters to put under scrutiny the hypothesis that the Transylvanian engravings actually record texts of the Danube Script. In particular, he examined possible graphic convergences between them and the Danube Script, drawing on his *DatDas* (Databank for the Danube Script) and extending comparisons to early writing systems such as Proto-cuneiform (Uruk), Akkadian cuneiform, the Indus script, Hieroglyphic Luwian, Cretan Linear A and Hieroglyphic, Linear B, and the Cypriot syllabary.[59] While partial similarities emerged, the Tărtăria signs could not be

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[57] M. Merlini, *La scrittura è nata in Europa?* (Rome: Avverbi Editore, 2004), 289; M. Merlini, "Milady Tărtăria and the Riddle of Dating Tărtăria Tablets," Prehistory Knowledge Project, Rome, 2006; Gh. Lazarovici and M. Merlini, "New Archaeological Data Refering to Tărtăria Tablets," *Documenta Praehistorica* 32 (2005), 208–209; Gh. Lazarovici and M. Merlini, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 111–196.

[58] M. Fortes, "The Structure of Unilineal Descent Groups," *American Anthropologist* 55 (1953), 31; R. E. Downs, *The Religion of the Bare'e-Speaking Toradja of Central Celebes* (The Hague: Uitgeverij Excelsior, 1956), 31–32; R. Hertz, "The Collective Representation of Death," in R. Needham and C. Needham (eds.), *Death and the Right Hand* (New York: Free Press, 1960); R. Huntington and P. Metcalf, *Celebrations of Death: The Anthropology of Mortuary Rituals* (Cambridge: Cambridge University Press, 1979); Gh. Lazarovici, C.-M. Lazarovici, and M. Merlini, *Tărtăria and the Sacred Tablets* (Cluj-Napoca: Editura Mega, 2011), 218; M. Merlini, "Tărtăria: A Ritual-Grave to Consecrate a Novel Ancestor in a Neolithic Medium-Scale Community," *Acta Terrae Septemcastrensis* 10 (2012).

[59] M. Merlini and Gh. Lazarovici, "Tărtăria Tablets: The Latest Evidence in an Archaeological Thriller," in L. Nikolova, M. Merlini, and A. Comşa (eds.), *Western-Pontic Culture Ambience and Pattern* (Berlin/Boston: De Gruyter, 2016).

straightforwardly integrated into the Danube Script corpus; while significant convergences exist, they are partial.[60]

The tablets were likely sacred initiatory tools used in liturgy, encoding information in an esoteric system of crypto-signs intelligible only to trained initiates. This "mythogram" combined pictographic signs and magic-religious symbols to prompt the oral recitation of myths, stories, or epics and the performance of associated rituals. In such contexts, the sacred and the secular often overlapped, with many daily activities imbued with religious meaning. The elevated status of the signs—possibly indicative of magical or religious potency—is suggested by the invariability of their form, which is even underlined. For instance, the imperative to preserve the integrity of one particular sign (the bow-and-arrow motif) led the "scribe" to divert the central horizontal register line around the edge of the tablet's left side, thereby avoiding interference with it caused by a ceramic fragment. Additionally, the contours of several signs were enhanced with a white substance, presumably to clarify and emphasize their outlines.[61]

Within the spiritual life of the Vinča A community, the tablets may have encoded ritual or esoteric knowledge. As one of the settlement's senior members, Milady Tărtăria could interpret these signs in an emergent literate milieu where marks and symbols were primarily ritual in function. She acted as a conduit to the ancestors and supernatural entities, recounting origins, recalling past events, and anticipating the future—supporting the view that southeastern Europe may have been a cradle of symbolic expression leading towards early writing.

In line with this perspective, Merlini proposed that the round tablet might function as a menstrual chronogram linked to a lunar calendar, reflecting the

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[60] M. Merlini, "The Sacred Cryptograms from Tărtăria: Unique or Widespread Signs?" in J. Marler (ed.), *Fifty Years of Tărtăria Excavations. Festschrift in Honor of Gheorghe Lazarovici on the Occasion of His 73rd Birthday* (Suceava: Institute of Archaeomythology, 2014), 84 ff.

[61] M. Merlini, "Milady Tărtăria and the Riddle of Dating Tărtăria Tablets," Prehistory Knowledge Project, Rome, 2006; M. Merlini, "A Semiotic Matrix to Distinguish between Decorations and Signs of Writing in the Danube Civilization," *Acta Terrae Septemcastrensis* 6 (2007), 73–130; M. Merlini, "Writing on Human Skin Made of Clay," in J. Marler (ed.), *The Danube Script: Neo-Eneolithic Writing in Southeastern Europe* (Sebastopol: Institute of Archaeomythology and Brukenthal National Museum, 2008); M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009); M. Merlini, "The Danube Script as a Tool of Ancestry Ideology in a Kinship-Based Society," in Z. Maxim, J. Marler, and V. Crișan (eds.), *The Danube Script in Light of the Turdaș and Tărtăria Discoveries* (Cluj: The National History Museum of Transylvania and the Institute of Archaeomythology, 2009); M. Merlini, "Evidence of the 'Turdaș Script' from a Dedicated Database," *The Journal of Archaeomythology* 7, no. 1 (2011); Gh. Lazarovici, C.-M. Lazarovici, and M. Merlini, *Tărtăria and the Sacred Tablets* (Cluj-Napoca: Editura Mega, 2011).

widespread ancient association between lunar and menstrual cycles. Its circular form and incised motifs suggest an early attempt to track lunar phases.[62]

Other scholars, notably archaeo-astronomer Iharka Szücs-Csillik, have interpreted the same tablet's symbols as astronomical or calendrical, corresponding to constellations along the ecliptic: Cancer and Canis Minor (bottom right), Gemini (top right), Sagittarius and Scorpius (bottom left), and Aquarius and Capricornus (top left). In the agrarian Tărtăria culture, the vernal equinox lay between Gemini and Cancer, and the autumnal equinox between Capricornus and Aquarius—implying the tablet may have marked key agricultural or ritual cycles and perhaps reflected awareness of the precession cycle.[63]

While the dating controversy was dismissed by some as inconsequential[64] and Merlini's archaeo-semiotic works expunged the Tărtăria signs from the inventory of the Danube Script, in recent years the possibility that the tablets represent the "most ancient European library" has prompted a re-examination of Danube basin archaeology. Numerous inscribed artefacts predating Sumerian cuneiform and Egyptian hieroglyphs have been reassessed, many from museum and university collections where they had remained unpublished. The growing body of evidence strengthens the case for a Neolithic and Copper Age European sign system—the Danube Script—and underscores the need to revisit earlier finds once dismissed for lack of an interpretative framework.[65]

3. From Fragmentary Data to a Coherent Inventory of Signs: the Modern Collective Challenge

By the late 1960s, little progress had been made toward compiling a comprehensive repertory of the signs used during the Neolithic and Copper Age in southeastern–central Europe, and even today a fully standardised inventory remains elusive. From the late 1960s and early 1970s, a small number of scholars undertook this task individually, among them János Makkay (Hungary), Shan

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[62] M. Merlini, "Lunar Menstrual Chronograms from the Danube Civilization to Procreate a Child of the Moon," in C.-E. Ursu, A. Poruciuc, and C.-M. Lazarovici (eds.), *From Symbols to Signs* (Suceava: Editura Karl A. Romstorfer, 2015).

[63] I. Szücs-Csillik, Gh. Lazarovici, and Z. Maxim, "Celestial Connections at Three Settlements from Vinča Civilization: Parţa-Tărtăria-Turdaş. Arrow-Hook and Noose-Ladder," *ArheoVest* VIII (2020), 437–454; I. Szücs-Csillik, "The Message of Some Ancient Astronomical Symbols from the Oldest Neolithic Vinča Civilization," *Romanian Astronomical Journal* 31, no. 2 (2021), 122 ff.

[64] M. S. F. Hood, "Response to Whipp," *Antiquity* 47, no. 186 (1973), 149.

[65] M. Merlini, "A Neolithic Writing in Southeastern Europe. An Assessment of the Research," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025), 25.

Winn (USA), Harald Haarmann (Finland), Gheorghe Lazarovici (Romania), Andrej Starović (Serbia), and Marco Merlini (Italy/Romania).
Earlier cataloguing in the first half of the 20th century had focused on the Vinča and Turdaş cultures, recording similarities in sign shapes and possible correspondences with ancient Near Eastern scripts. A more systematic approach emerged in the early 1970s with Marija Gimbutas' conceptual framing of the issue and Shan Winn's pioneering work, which provided a foundational methodology. Later, Lazarovici, Starović, and Merlini developed inventories supported by extensive databases enabling statistical and semiotic analysis. By the early 21st century, Winn, Haarmann, Lazarovici, Starović, and Merlini began collaborating under the auspices of the Institute of Archaeomythology (Joan Marler, director) and disseminated their work online through the *Prehistory Knowledge Project* (directed by Merlini).[66]

3.1. János Makkay's Turdaş–Vinča Corpus: Between Near Eastern Drift and Local Chronologies

In 1969, Hungarian archaeologist János Makkay produced the first organized collection and classification of Neolithic signs from southeastern Europe. His article "Late Neolithic Tordos Group of Signs" analyzed material from 60 settlements, challenging the prevailing tendency to dismiss such marks as mere decoration.[67] He expanded the geographic scope beyond Turdaş and Vinča to include related sites.
The discovery of the Tărtăria tablets in 1961, and the divergent interpretations they provoked, prompted Makkay to pursue two objectives:

- A detailed, systematic analysis of signs incised on vessels, weights, and other objects from the Vinča koine and related cultures.
- An investigation of these European sign systems in light of possible influences from the more "advanced" civilizations of the Near East and Anatolia.

He compared Neolithic European signs with Mesopotamian pictographs, dating the Tărtăria tablets to the late Vinča or transitional Copper Age (late 5th millennium BCE). For Makkay, Turdaş signs held primacy over the Vinča signs because of:

- the abundance of signs at the site,
- its proximity to Tărtăria,
- the assumption that most Vinča signs derived from Turdaş, and
- its potential to yield more precise chronological insights.[68]

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[66] Prehistory Knowledge Project, http://www.prehistory.it (accessed November 22, 2024).
[67] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 9–49; M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 62.
[68] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 12.

Despite its pioneering nature, Makkay's classification had significant limitations that hindered subsequent research.[69] He reproduced signs as they appeared on artefacts without standardizing their forms, conflated single and compound signs, and did not clarify whether they were isolated or part of larger sequences. Furthermore, he forgot both archaeological and semiotic context, publishing abstract sketches without photographs or detailed drawings, and relied exclusively on published images rather than examining original artefacts. This omission prevented readers from conducting an internal analysis of the sign system or verifying and improving his classification process.[70]

Although he explicitly identified the signs as non-ornamental, he did not treat them as a "script," instead categorizing them ambiguously as "symbolical signs of a rectilinear or curved design."[71] This conflation of criteria for script and symbolic codes introduced methodological inconsistencies.

Makkay further argued that sign production was confined to the Turdaş–Vinča culture, despite collecting examples from related cultures—an inconsistency that served his hypothesis of Near Eastern influence. He regarded the signs of Neolithic and Copper Age southeastern Europe as a homogeneous whole, ignoring regional variation due to the absence of a historical framework integrating neighbouring cultures. His stated aim was to emphasize resemblances between Turdaş–Vinča signs and those of Near Eastern–Anatolian systems, asserting that Anatolian and Mesopotamian influences reached the Danube region as early as the Vinča period, accompanied by pottery signs and ornamental motifs similar to Mesopotamian examples.[72] His main goal was to substantiate the claim that, as early as the Vinča period, the emergence of signs in Europe was attributable to Near Eastern influences and represented a unique achievement of the Vinča culture.[73] Consequently, he did not develop a historical framework that integrated the Vinča sign system with those of neighboring coeval cultures.

However, his comparisons were undermined by a fundamental incongruity: southeastern European signs were generally abstract pottery marks, whereas Mesopotamian signs were pictograms.[74] His analysis lacked a semiotic or

[69] For a complete inquiry, see: M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 108 ff.

[70] Due to issues with numerous archaeological excavations, Makkay's records often lack important details about the inscribed artifacts: the placement of signs on the surface of vessels is rarely specified; their measurements are often unknown; there is no information on the method of incision; and the dating used to define their chronology is frequently imprecise.

[71] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 11.

[72] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 13–14.

[73] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 14.

[74] J. Makkay, "The Tartaria Tablets," *Orientalia* 37 (1968), 11.

linguistic framework to distinguish writing from other symbolic uses, and he did not produce a systematic, comprehensive inventory suitable for cross-cultural study. His focus remained on demonstrating Near Eastern influence rather than analyzing the internal organization of the Vinča sign system. [75]
While constrained by the dating methods of his time and his rejection of dendrochronology, Makkay's work nonetheless marked a significant step toward the systematic study of Neolithic and Copper Age signs. He challenged the decorative-motif interpretation, broadened the geographic scope of analysis, and compiled the first systematic collection of Vinča signs—albeit with limited utility for later researchers due to its methodological shortcomings and interpretative bias toward external influence.

3.2. Shan Winn's Foundational Framework for the Vinča Sign System

In the early 1970s, Shan Winn assembled the first systematic inventory of what he termed "pre-writing in southeastern Europe," assigning reference numbers to hundreds of signs collected primarily from the Central Balkans, especially the Vinča region.[76] His work—initially presented in a 1973 PhD dissertation (microfilm) and later in a 1981 book printed in very limited numbers— remains the most extensive analysis of Vinča signs and inscriptions to date, though it is still unfamiliar to many specialists due to its restricted circulation.[77]
Winn identified approximately 50 Vinča sites with inscribed artefacts, though many yielded only a single sign. His catalogue lists 41 sites by name,[78] while his accompanying map only marks 35[79] (six labelled directly, 29 in a separate list).[80] The corpus comprised marks he judged to be "neither decorations nor

[75] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 114.

[76] S. Winn, *Pre-writing in Southeastern Europe: The Sign System of the Vinča Culture ca. 4000 BC* (Calgary: Western Publishers, 1981).
[77] S. Winn, *Pre-writing in Southeastern Europe: The Sign System of the Vinča Culture ca. 4000 BC* (Calgary: Western Publishers, 1981). For a detailed discussion, see M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 108 ff.; M. Merlini, "A Neolithic Writing in Southeastern Europe. An Assessment of the Research," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025), 26 ff.
[78] S. Winn, *The Signs of the Vinča Culture: An Internal Analysis; Their Role, Chronology and Independence from Mesopotamia* (Ann Arbor: University Microfilms, 1973), 304; S. Winn, *Pre-writing in Southeastern Europe*, 267.
[79] S. Winn, *The Signs of the Vinča Culture*, 19; S. Winn, *Pre-writing in Southeastern Europe*, 15.
[80] Marija Gimbutas wrongly stated that the signs were collected from 29 sites (M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991), 309),), and other scholars have repeated that mistake.

scratches,"[81] often from poorly documented objects. Through normalization of recurring forms, he organized this apparent diversity into 210 distinct type-signs,[82] found mainly on figurines, tablets, vessels, spindle whorls, and loom weights. This corpus blended marks potentially related to writing with symbols, ritual signs, and other functional marks; Winn did not attempt to distinguish between these categories.[83]

Using a geometric approach to the shapes of the signs and their development through increasingly complex combinations of elementary forms, Winn's classification reduced the 210 types to five core geometric shapes:

1. Straight vertical or horizontal line (| or –).
2. Two intersecting lines (cross) (+ or ×).
3. Angle or two lines joined at one end (V or Λ).
4. Dot or stipple (•).
5. Curved line, including arcs or circles (such as  ,  ,  , ).[84].

Each core sign could appear unaltered (singly or repeated) or modified with accessory marks placed adjacent to (), abutting (), or overlapping () the core form. By exploring geometric combinations, Winn defined 18 fundamental categories (some with subcategories). His list began with the simplest form (a single line) and ended with pictograms and meanders, implying a theoretical progression from elementary to complex shapes.

According to Winn's inventory, the fundamental categories of signs are as follows:

1) Plain straight single lines.
2) Plain straight single lines with accessory signs (creating modifications), which with a few exceptions is a straight line; this category is articulated into five sub-categories.
3) Repeated lines.

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[81] "The signs are not components of ornamental motifs, although a few examples are abstractions from decorative prototypes" (S. Winn, "The Old European Script. Further Evidence, Economic and Religious Stimuli," Prehistory Knowledge Project, Rome, 2004).

[82] Winn recorded 200 basic sign types and 10 additional types of meander symbol/signs (S. Winn, *Pre-writing in Southeastern Europe*, 59).

[83] In 2025, the linguist Sorin Paliga presented a scheme that organizes Neolithic symbolism, primarily based on the repertories of Gimbutas and Winn (S. Paliga, "Prehistoric Symbolism and the Pre-Indo-European Heritage," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025). Other signs, related to archaeometallurgy and its associated meanings, can be found in S. Paliga, "Metals, Words and Gods. Archaeometallurgical Skills and Reflections in Terminology," *Linguistica* 33 (1993), 157–176.

[84] S. Winn, *Pre-writing in Southeastern Europe*, 60.

4) Repeated lines with accessory sign (modifications); this category is subdivided into three sub-categories.
5) Single plain X.
6) Single X plus accessory sign (modifications); segmented into three sub-categories.
7) Repeated X shapes; divided into two sub-categories.
8) Repeated X shapes plus accessory sign (modifications).
9) Filled crosses; divided into three sub-categories
10) Single plain V.
11) Plain V with accessory sign (modifications); segmented into four sub-categories.
12) Repeated V shapes.
13) Repeated V shapes plus accessories; partitioned into four sub-categories.
14) Stipples.
15) Curves, including circles (adorned or unadorned).
16) Combinations or ligatures to form complex signs.
17) Pictograms.
18) Meanders.

This purely geometric, ahistorical organization of the sign list based on their geometric outlines and hypothesizing their progression from elementary to complex forms through gradual modifications of basic elements approach facilitated the addition and regrouping of signs.[85] However, it also introduced problems, leading to the classification of clearly ideographic or pictographic motifs under abstract categories (e.g., pictograms as  placed in the "V" group) and the inclusion of ligatured inscriptions as if they were single signs.[86]

Winn's inventory is presented in a well-organized table. The first column lists the sign type, while the second column records its major variants.[87] The third column indicates whether the sign occurs as a single, isolated mark, while the

[85] S. Winn, *Pre-writing in Southeastern Europe: The Sign System of the Vinča Culture ca. 4000 BC* (Calgary: Western Publishers, 1981), 18. Gimbutas criticized the method by which Winn assumed the derivation of the inventoried signs from five core shapes, arguing that this classification suggests a hypothetical process of graphic development from simple to complex (M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991), 309). In a subsequent work, Winn responded unconvincingly, claiming that he had used his scheme solely for cataloging the signs, without ever asserting that the list of signs was derived from five basic geometries (S. Winn, "The Danube (Old European) Script," *The Journal of Archaeomythology* 4, no. 1 (2008), 128).

[86] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 124.

[87] According to Winn's approach, each sign type can exhibit some variation, though not to the extent that the derived sign becomes confusable with one originating from another type.

fourth column identifies its presence or absence within groups of signs. The fifth column provides references to tables where the entire corpus of collected signs associated with the type can be found. This schematic representation of sign occurrence in the inventory table provides an overview of each sign's relative frequency and distribution.[88] Thus, Winn did not merely compile a list of signs but also developed a preliminary database for further study.

However, he made no attempt to determine whether signs functioned as script elements, symbols, ownership marks, or divine identifiers—acknowledging uncertainty as to whether Neolithic communities themselves drew such distinctions. His list of 210 signs was merely a means of categorizing them as they occur within the corpus of inscribed objects, without researching on their nature or usage.[89]

Furthermore, Winn did not regard the Vinča signs as "true writing."[90] Defending himself from the observations of Harald Haarmann, that qualifying the sign system of Neolithic south-eastern Europe as "pre-writing" did not exclude the possibility that it could be a "some kind of writing," but he avoided equating it with Near Eastern proto-writing (c. 3000 BCE), which most scholars consider the origin of writing.[91] Since the Vinča signs predated this by millennia, he used the term "pre-writing" to denote a, distinct mode of communication technology that did not constitute writing but preceded it.[92].

This formulation allowed him to propose a Balkan–Danube sign system without directly challenging the orthodox Near Eastern origin model of literacy. Although the concept lacked a firm theoretical basis and Winn abandoned it in

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[88] . S. Winn, *Pre-writing in Southeastern Europe: The Sign System of the Vinča Culture ca. 4000 BC* (Calgary: Western Publishers, 1981), 18.

[89] S. Winn, "The Inventory of the Danube Script (DS)," Prehistory Knowledge Project, Rome, 2004; S. Winn, "Beyond Academic Skepticism: the Ritual Use of the Danube Script," in J. Marler and M. Robbins Dexter (eds.), *Signs of Civilization: International Symposium on the Neolithic Symbol System of Southeast Europe* (Novi Sad: The Institute of Archaeomythology and the Serbian Academy of Sciences and Arts, 2009).

[90] S. Winn, *Pre-writing in Southeastern Europe: The Sign System of the Vinča Culture ca. 4000 BC* (Calgary: Western Publishers, 1981).

[91] The lack of a clear distinction between symbolic codes and writing systems, the preference for terms such as 'signs' and 'sign system' over 'script,' and the adoption of the concept of 'pre-writing' are interconnected aspects of the same issue. Scholars who have proposed the existence of a Neolithic European writing system have faced significant criticism. Winn initially maintained his position by using the term 'script' throughout his 1973 dissertation. However, he was subsequently compelled to avoid the term in later publications. As a result, in the revised edition published in 1981, he replaced the contentious word 'script' with the more neutral 'signs' in most instances.

[92] S. Winn, "The Danube (Old European) Script," *The Journal of Archaeomythology* 4, no. 1 (2008), 127.

1990,[93] its ambiguity proved attractive to many Eastern European archaeologists, who applied it to hundreds of sites yielding non-decorative, non-symbolic signs. Recognizing these signs as elements of a European "pre-writing" became an appealing key to open all the doors. This interpretation, framing the signs as components of a communication system that did not constitute true writing but predated it, lent plausibility to the idea of a Balkan-Danube experiment with script-like forms without directly challenging established narratives about the origins of literacy from the Protoliterate/Sumerian script.[94]

From his inventory, Winn outlined a multi-component communication system comprising:

1) Simple ritual or magical marks on pottery.
2) Distinctive marks near vessel bases, possibly indicating:
    a) economic data (e.g., production counts),
    b) ownership or provenance,
    c) the identity of "powers" invoked during rituals.
3) Common motifs or symbols, sometimes abstracted from decorative designs.
4) A small number of pictographs, insufficient to establish a pictographic system.
5) Possible ideograms to express concepts (i.e., ideograms), often occurring in group.

While Winn produced the first systematic inventory of Vinča–Turdaş signs, he did not attempt to assign the different signs or sign groups to specific communicative channels. By contrast, other systems, such as Merlini's ones, analyses the internal structure of communication in Neolithic and Copper Age southeastern Europe, distinguishing categories such as script signs, ritual markings, symbols, divinity insignia, calendrical or chronographic annotations, and lineage or community affiliation marks. Within this framework, only elements 2a, 4, and 5 of Winn's typology could be considered components of a writing system.[95]

A major limitation of Winn's work is its exclusive focus on the Vinča core area in former Yugoslavia and north-western Romania, excluding neighbouring contemporaneous cultures—Karanovo, Gumelniţa, Gradešnica, and Tisza-Herpály-Csöszhalom—which he treated as peripheral or unrelated to the Vinča communicative experiment. This raises two key issues:

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[93] S. Winn, "A Neolithic Sign System in Southeastern Europe," in M. Le Cron Foster and L. Botscharow (eds.), *The Life of Symbols* (Boulder: Westview Press, 1990); S. Winn, "The Old European Script. Further Evidence, Economic and Religious Stimuli," Prehistory Knowledge Project, Rome, 2004.

[94] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 124.

[95] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 170.

- How to define the geographic and cultural boundaries for a Danube Script database.
- How to assess the quantitative and qualitative contributions of Vinča-nearby cultures to that inventory.

The question is whether these cultures should be considered separate from Vinča, part of it, or distinct yet interconnected traditions. Notably, most of their signs also occur in the Vinča corpus.

Winn's contribution nonetheless marked a milestone, introducing several innovations:

- *Normalization of sign shapes* based on recognizable similarities, with reference numbers and internal analyses.
- Inclusion of *illustrations of inscribed artefacts*, clarifying sign identification and selection.
- A *preliminary dataset* linking signs to their inscriptions, artefacts, and precise placement on them.
- The introduction of the principle of *core signs and their variations*, modified through repetition or diacritical markers.
- Acknowledgement—albeit limited—of the *potential diversity of sign functions*—whether decorative, symbolic, or communicative.
- A *focused analysis of the Vinča–Turdaş culture*, establishing a clear cultural and chronological context for the inscribed findings.

However, as an archaeologist, Winn produced a descriptive rather than interpretative inventory, lacking a semiotic framework and functional categorization. He identified incorrectly some "derivative" signs as composite inscriptions of multiple individual signs, introducing inaccuracies into his catalog. The scholar did not set rigorous criteria to distinguish writing from extra-writing marks, blurring the boundary between communicative systems and other symbolic uses. His exclusive focus on Vinča limited engagement with the wider southeastern European context, and his omission of functional groupings (pictographic, ideographic, abstract) restricted semiotic and structural analysis of the inventory.

In sum, Winn's meticulous compilation in 1981 within the Vinča–Turdaş sphere provided a crucial foundation for future research, but required further refinement and contextual integration to advance the study of Neolithic writing systems—a task he addressed only in part in 2004 (see § 3.6).

3.3. Marija Gimbutas' Sacred Signs and the Vision of an Old European Script

Marija Gimbutas made a seminal contribution to the study of prehistoric communication by introducing the concept of an "Old European script". She was the first to propose a comprehensive inventory of signs based on the idea—later

widely popular —that it was not a commercial or administrative tool, but embedded within a magical-religious framework.[96]

In *The Civilization of the Goddess* (1991), Gimbutas identified 36 core signs, which were either abstract and arbitrary in origin or had gradually become so. These included geometric forms such as V, Λ, X, M, Y, N, crosses, triangles, lozenges, spirals, and squares.[97] These signs, she argued, conveyed concepts or sounds through formal modifications—duplication, inversion, and the addition of diacritical elements like strokes, dots, or curves. From these core forms, she catalogued over 200 derivative signs, maintaining that variations were not products of regional or chronological diversity, nor of individual creativity, but reflected a deliberate symbolic repertoire of what she termed the *Old European Script*,[98] *Old European Writing*,[99] or *Sacred Script*.[100]

Gimbutas criticized earlier scholars for their failure to distinguish adequately between writing signs and symbols, though she acknowledged the inherent difficulty of this task. She noted that approximately 70 of the 210 signs identified in Shan Winn's corpus were universal symbols used across prehistoric Europe. Among these, more than 60 were classified as pure symbols, typically appearing as isolated, single marks, rather than in multi-character inscriptions. However, she identified nine "ambivalent marks—including V, M, X or +, II, III, IIII, °°, °°°, and °°°°— as exceptional, given their dual function as both symbolic representations and elements of script.[101]

Its geographic area extended well beyond the Vinča culture, encompassing nearly 100 sites across the Danube, Morava, and Tisza basins (former Yugoslavia, Hungary, Bulgaria, Romania), and into cultures such as Karanovo, Dimini, Cucuteni, Petreşti, Lengyel, Butmir, Bükk, Tisza-Herpály-Csöszhalom, and Linear Pottery. She concluded that the script was a pan-European

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[96] For an exhaustive inquiry on Gimbutas' attempts, see: M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 114 ff.; M. Merlini, "A Neolithic Writing in Southeastern Europe. An Assessment of the Research," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025), 31–33.

[97] M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991).

[98] M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991), 309; M. Gimbutas, *The Living Goddesses*, ed. M. R. Dexter (Berkeley and Los Angeles: University of California Press, 1999), 43.

[99] M. Gimbutas, *The Living Goddesses*, ed. M. R. Dexter (Berkeley and Los Angeles: University of California Press, 1999), 43.

[100] M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991), 307.

[101] M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991), 309.

phenomenon during the 6th and 5th millennia BCE, with occasional signs found in Neolithic southern Italy and megalithic western Europe".[102]

Despite its pioneering nature, Gimbutas' catalog of sacred signs presents several methodological weaknesses as a foundation for creating a standardized inventory of the Danube Script:

- *Lack of standardization*: No organized numbering system was provided..
- *Inconsistencies in core sign count*: While she claimed "about 30" core signs in the text,[103] she listed 36 in the related table[104] and only seven in another,[105] leading to confusion over the total inventory because if the remaining 29 core signs from the first table are included, the total number of signs in her inventory is 171. This discrepancy raises the question of the 30 or so "missing" core signs.
- *Ambiguous semiotic criteria*: Although she distinguished between writing signs and symbols, her criteria were not rigorously defined on a clear semiotic basis.
- *Shape-based grouping*: Signs were classified by form rather than semiotic function, despite her recognition of 36 core signs and compositional rules for their formal modification.
- *Misclassification of inscriptions*: Some derivative signs borrowed by Winn were actually compound inscriptions (horizontal, vertical, or ligatured), not single signs—hence their absence from Haarmann's and Merlini's inventories. Examples of horizontal inscriptions include:  , ,  ,  ,  . Examples of vertical inscriptions include:  ,  ,  . Other supposed derivative signs are de facto inscriptions featuring ligatures connecting individual signs, such as:  , ,  ,  .
- *Absence of a structured database*: Her catalog was not derived from a queryable dataset, limiting analytical precision.

Gimbutas anchored her interpretation within a sacred-centric and Great Goddess-centric framework, assuming that all signs were religious in nature and associated with divine attributes. This lens restricted consideration of alternative functions.

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[102] M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991), 309; M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 117.

[103] M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991), 309.

[104] M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991), 308, fig. 8.1.

[105] M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991), 310, fig. 8.21.

Moreover, her definition of "Old Europe" was both geographically and temporally expansive. At times, it sometimes stretched its boundaries from the Aegean and Adriatic regions, including their islands, to the northeastern reaches of western Ukraine;[106] at other times, it extended "from the Atlantic to the Dnieper."[107] The time frame she proposed was similarly broad, encompassing periods from the Neolithic into the Megalithic, which she often treated as a culturally undifferentiated whole.[108]

Concerning the type of the recognized script, she postulated that modifications of core signs were intended to express concepts or phonetic elements of an unknown language, suggesting a linguistic scope that remains unproven.

In conclusion, Marija Gimbutas was the first to conceptualize a unified prehistoric sign system across Neolithic Europe beyond the Vinča culture, framing it as a sacred script embedded in ritual artefacts—figurines, libation vessels, spindle whorls, seals, and temple models.[109] Her emphasis on abstract core signs and their formal transformations laid a foundational framework for understanding symbolic complexity in prehistoric communication.

However, her inventory lacked standardization and systematic organization, clear semiotic differentiation to distinguish between writing and symbols, and contextual nuance. Her interpretive model, while influential, was constrained by its religious bias and broad cultural generalizations. Despite these limitations, Gimbutas' work remains foundational, shaping subsequent scholarship and inspiring renewed inquiry into the symbolic and communicative systems of Old Europe.

3.4. Harald Haarmann's Functional Reorganization of the Old European Repertory

The linguist Harald Haarmann significantly advanced the study of prehistoric sign systems by expanding Shan Winn's catalogue of southeastern European "pre-writing" signs into a structured framework he

[106] M. Gimbutas, *The Gods and Goddesses of Old Europe: 6500–3500 B.C.* (Berkeley and Los Angeles: University of California Press, 1974; repr. 1982), 17.

[107] M. Gimbutas, *The Language of the Goddess* (San Francisco: Harper & Row, 1989), XIII.

[108] M. Gimbutas, *The Civilisation of the Goddess. The World of Old Europe* (San Francisco: HarperSanFrancisco, 1991).

[109] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 117.

termed the Old European (OE) script.[110] Originally compiled in 1995[111] and made publicly accessible in 2006 via the *Prehistory Knowledge Project*,[112] Haarmann's repertory aimed to systematize and interpret the signs as components of a coherent writing tradition.

Building on Winn's work, Haarmann introduced several key refinements:

- Elimination of regional and minor variants of core signs.
- Removal of signs misidentified as derivatives in Winn's and Gimbutas' inventories—many of which were actually compound inscriptions formed by ligatures or sequential arrangements.
- Addition of new signs from neighbouring coeval cultures beyond the Vinča A–B2 horizon investigated by Winn.
- Incorporation in the repertory of 23 signs previously classified by Winn as mere variants.
- Organization of the signs by functional categories, distinguishing between pictographic/ideographic, basic abstract, and complex abstract sign.

His classification differentiates between simple and complex variations, and follows a progression from pictographic to increasingly abstract designs.

The repertory of the OE script lists 231 signs. It is founded on 10 root signs, which generate 90 derivative forms through simple or complex formal modifications. 131 signs remain unchanged.

As regards the classification of signs according to their functional role, of the 231 listed:

- 156 are abstract, lacking iconic references.
- 26 have possible naturalistic origins.

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[110] H. Haarmann, *Early Civilization and Literacy in Europe: An Inquiry into Cultural Continuity in the Mediterranean World* (Berlin and New York: Mouton de Gruyter, 1995), caption to fig. 32.

[111] H. Haarmann, *Early Civilization and Literacy in Europe: An Inquiry into Cultural Continuity in the Mediterranean World* (Berlin and New York: Mouton de Gruyter, 1995).

For an analysis of the Danube Script and its organizational principles, see also Haarmann 2008. For an in-depth enquiry on Haarmann's repertory, see: M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 125 ff.; M. Merlini, "A Neolithic Writing in Southeastern Europe. An Assessment of the Research," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025), 33–36.

[112] H. Haarmann, "Sign Inventory of the Old European Writing," Prehistory Knowledge Project, Rome, 2006, http://www.prehistory.it/mappadeisegni1i.htm (accessed November 22, 2024).

- 49 are clearly iconic, depicting animals, human figures, plants, tools, and natural phenomena.[113]

Haarmann's linguistic expertise added depth to his analysis. He identified the abstract and arbitrary nature of most signs and the techniques used to generate derived forms (notably, 39% of signs were modified from core types).[114] He also compared the OE signs with Mesolithic motifs from Lepenski Vir, suggesting that shamanistic graphemes formed the symbolic foundation of the Danube Script.[115]

A major contribution of Haarmann's work was his effort to contextualize the OE script within broader cultural and chronological frameworks. Using dendrochronological data, he proposed a west-to-east cultural diffusion, including writing technology, during the 4th millennium BCE, identifying over 40 sign parallels (excluding simple forms) between the OE script and the ancient Sumerian script.[116] He further argued that approximately one-third of the OE signs persisted in Aegean scripts, particularly Linear A,[117] as well as in Minoan hieroglyphs and the Cypriot Syllabic.[118]

However, Haarmann's repertory also presents notable limitations:

- It was largely based on Winn's Vinča-focused inventory, yet presented as a general catalogue for Neolithic "Old Europe" without clarifying its geographic or historical boundaries.
- He did not distinguish between signs used for writing and those serving other functions (e.g., divinity identifiers, ownership marks, calendrical symbols), leading to conceptual ambiguity.
- His classification prioritized graphic abstraction over semiotic function, weakening the interpretive clarity of the system.

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[113] H. Haarmann, *Early Civilization and Literacy in Europe: An Inquiry into Cultural Continuity in the Mediterranean World* (Berlin and New York: Mouton de Gruyter, 1995); H. Haarmann, "On the Formation Process of Old World Civilizations and the Catastrophe that Triggered It," *European Journal for Semiotic Studies* 14, nos. 3–4 (2002).

[114] He particularly employed the 'diacritical' principle, which posits that many complex signs can be distinctly identified as deriving from the application of diacritical markers (e.g., strokes, dots, circles) to basic signs.

[115] H. Haarmann, *Writing as Technology and Cultural Ecology: Explorations of the Human Mind at the Dawn of History* (Frankfurt, Berlin, Brussels, and New York: Peter Lang, 2011); H. Haarmann, "Eurowriting: The Historical Context of Antiquity," *Journal for EuroLinguistiX (JELiX)* 21 (2024), 106–107.

[116] H. Haarmann, *Geschichte der Schrift* (Munich: Edition Monacensia, 2002).

[117] H. Haarmann, *Early Civilization and Literacy in Europe: An Inquiry into Cultural Continuity in the Mediterranean World* (Berlin and New York: Mouton de Gruyter, 1995), 49 ff.

[118] H. Haarmann, "Eurowriting: The Historical Context of Antiquity," *Journal for EuroLinguistiX (JELiX)* 21 (2024), 106 ff.

- His hypothesis of direct cultural transmission from Europe to Mesopotamia and the Aegean remains speculative and contested.

In conclusion, Haarmann's repertory represents a substantial methodological advance in the study of prehistoric European sign systems. By emphasizing abstraction, formal modification, and functional categorization, he introduced a framework for analyzing the internal structure of the OE script. Yet, the lack of semiotic differentiation and the broad, undefined scope of "Old Europe" limit the precision and applicability of his model. His claims of cultural transmission to the Near East and Aegean, while provocative, require further substantiation. Nonetheless, Haarmann's work remains a key reference point in the evolving discourse on Neolithic and Copper Age symbolic communication.

3.5. Andrej Starović's Context-Rich Indexing of Vinča Signs

In 2003, Serbian archaeologist Andrej Starović conducted a comprehensive analysis of approximately 1,200 inscribed clay artefacts for his doctoral dissertation, compiling a corpus of around 1,500 signs and symbols from nearly 40 Vinča sites across Serbia. His research drew on collections from 17 museums[119] and was structured around three analytical frameworks:

- *General context*: including site information, discovery details of the inscribed artifact, museum documentation, and chronological data.
- *Analysis of the inscribed artefact*: recording formal and techno-morphological features, dimensions, and typological characteristics.
- *Sign characteristics*: describing each sign's formal attributes, such as line count, intersections, and typological classification.

Starović documented each artefact through photographs and drawings, ultimately identifying 185 geometric signs linked to the Vinča culture:

- 75 characters attributed to the Vinča sign system,
- 100 symbols graphically resembling signs,
- 10 complex inscriptions.

A striking conclusion of his study was that neighbouring cultures—such as Tisza-Herpály-Csöszhalom, Boian, Karanovo, and Butmir—showed little to no evidence of comparable sign systems. Where signs did occur, they were rare. Starović thus argued that pre-writing or writing communication in the Danube region during early prehistory can be attributed almost exclusively to the Vinča system.[120]

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[119] For an extensive enquiry on Starović's index of Vinča signs, see: M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 125 ff.

[120] Starović, "Contextual Analysis of the Vinča Signs in Serbia: Symbols of Neolithic Spoken Language," in J. Marler and M. Robbins Dexter (eds.), *Signs of Civilization: International Symposium on the Neolithic Symbol System of Southeast Europe* (Novi

He maintained that the Vinča signs formed a standardized and coherent system, not a random assemblage of marks. Their consistent shapes suggested formalized learning, possibly through dedicated instruction.[121] This claim was supported by the fact that 84% of the signs in his corpus were recovered from systematic excavations with secure archaeological contexts. Starović explored the crucial question of whether the Vinča sign system evolved into a full-fledged writing system,[122] proposing that while its origins were likely religious or ceremonial, later phases saw its use expand into practical, utilitarian communication. His hypothesis was based on two datasets:

1. *Sign Usage on Artifacts*:

- Religious objects (e.g., votive figurines, face-like lids, amulets, tablets) bore the most significant signs and their combinations, suggesting liturgical or symbolic functions of the script.
- Utilitarian objects (e.g., food containers, loom weights) featured the most frequently recurring sign groups, possibly indicating practical use of the script, though direct evidence of utilitarian content (e.g., measurements or inventories of goods) remains absent.

2. *Evolution of sign application*:

- In early cultural phases, signs were incised before firing, primarily on ceremonial items, sustaining the idea of an early liturgical use for the script.
- By the Vinča B2 phase, post-firing incisions became common, and potshards emerged as media for transmitting practical information.
- Later phases introduced numeric marks, ligatures, and regional stylistic variations, indicating a shift toward more precise and functional communication.[123]

Starović linked the emergence of the Vinča sign system to broader social and economic transformations, including the rise of trade networks involving flint, salt, and copper, which required documentation and communication. He suggested that traveling craftsmen and traders may have played a key role in producing and disseminating signs.

The researcher further proposed that the sign corpus represents a collective achievement of Vinča society, supported by both quantitative data and

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Sad: The Institute of Archaeomythology and the Serbian Academy of Sciences and Arts, 2009).

[121] A. Starović, *Signs of Civilization: Exhibition Catalogue* (Novi Sad: Institute of Archaeomythology and Serbian Academy of Sciences and Arts, 2004).

[122] A. Starović, "If the Vinča Script Once Really Existed Who Could Have Written or Read It?," *Documenta Praehistorica* 32 (2005), 257.

[123] A. Starović, "If the Vinča Script Once Really Existed Who Could Have Written or Read It?," *Documenta Praehistorica* 32 (2005), 259.

qualitative observations. Ultimately, he concluded that the complexity of the system—in both form and function—supports the interpretation of the signs as authentic symbols of a spoken language.
In conclusion, Starović's work stands out for its meticulous data collection, systematic organization, and nuanced exploration of the Vinča sign system's communicative and societal dimensions. While some of his hypotheses—particularly regarding utilitarian and linguistic functions— has limited direct evidence, his research provides a robust foundation for understanding the advanced symbolic practices of the Vinča culture and their potential role in the development of early writing in prehistoric Europe.

3.6. Winn's 2004 Reassessment: From Geometric Typology to Usage-Based Classification of the Signs

In 2004, Shan Winn published a substantially revised inventory titled *Danube Script (DS): Based on Sign Usage* through the *Prehistory Knowledge Project*.[124] This work introduced four key innovations:[125]

1. The formal recognition of a literate script emerging in Neolithic and Copper Age southeastern Europe.
2. The naming of this communication system as the Danube Script.
3. A commitment to establishing a dedicated inventory for this script.
4. The prioritization of sign usage as the principal organizing criterion of the inventory, superseding earlier emphases on geometric development, artefactual distribution, and single sign versus sign grouping.

Winn categorized signs according to their presumed functions in ritual, numerical, and utilitarian contexts, including:

1. General symbols.
2. Ritual markings and deity identifiers.
3. Numerical signs for ritual or record-keeping.
4. Unique signs for ownership, craftsmanship, or other identifiers.

The updated catalogue comprised 242 signs, including 26 core signs and 150 unchanged entries (approximately 62%). It incorporated material from Transylvanian excavations (1981) and 23 additional signs previously classified by Harald Haarmann as variants, now treated as distinct signs.
Winn's 2004 inventory was structured along two parallel frameworks:

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[124] S. Winn, "The Inventory of the Danube Script (DS)," Prehistory Knowledge Project, Rome, 2004.
[125] For an extensive analysis on Winn's new inventory, see M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 132 ff.; M. Merlini, "A Neolithic Writing in Southeastern Europe. An Assessment of the Research," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025), 36–38.

1. Geometric Characteristics and Modifications:

I. Signs based on "V"
II. Signs based on "X"
III. Ligatures associated to "V"
IV. Abstract signs common to multiple scripts
V. Signs/symbols based on "+"
VI. Semi-whirl motifs
VII. "H" or "ladder-like" signs/symbols
VIII. Pictographs and Ideographs Meander elements as symbols/quasi-signs

2. *Sign Usage*:

I. Goddess-identifiers
II. Compound ritual-symbolic signs
III. Ritual lines associated with deities
IV. Probable numerals
V. Record-keeping signs (e.g., measurements, quantities)
VI. Unique pottery signs (e.g., household identifiers)
VII. Unique symbols/quasi-signs.

This revised approach marked a clear departure from Winn's 1981 model, which had focused primarily on geometric evolution of signs. The 2004 inventory expanded the geographic scope and introduced functional categorization, reflecting a more nuanced understanding of sign deployment across contexts recognizing it as a literate script in Neolithic and Copper Age southeastern Europe, termed the "Danube Script".

Despite its advancements, the 2004 inventory presents several unresolved issues for creating a definitive catalogue of the Danube Script:

- The *dual categorization*—geometric vs. functional—remains structurally unintegrated because they coexist as separate lists, leading to overlaps and ambiguities.
- *Ambiguous categories*, such as "probable numerals" and "record-keeping signs", rely on speculative interpretations unsupported by direct evidence.
- The categories "Unique symbols/quasi-signs" and "Meander elements as symbols/quasi-signs" used to describe the *ambiguous gray area between symbols and signs*, lacks semiotic grounding and recalls earlier terminological opacities surrounding the diplomatic term "pre-writing" employed by Winn two decades earlier.
- The *inclusion of both single signs and groupings of signs* (e.g., "Combinations of signs/ligatures with 'V'" and "Compound signs consisting of symbolic and ritual elements") within the same list fails to recognize that the latter should, in fact, be classified as inscriptions rather than individual signs.

- The inventory does not consistently distinguish between signs belonging to a writing system and those serving non-literate symbolic functions. A divinity identifier, for example, does not constitute a component of a writing system; rather, it functions as a symbol denoting the presence and powers of a deity venerated at a specific cultic site.[126] A refined count excluding such elements reduces the number of actual writing signs to 173, raising questions about the inventory's reliability for studying the Danube Script as a coherent writing system.

In conclusion, Winn's 2004 revision represents a significant step forward in cataloguing the Danube Script, particularly through its emphasis on sign usage and its expanded dataset. However, the inventory's conceptual inconsistencies—especially its lack of semiotic differentiation and its ambiguous treatment of inscriptions—limit its utility as a definitive framework. While it affirms the existence of a literate tradition in Neolithic southeastern Europe, further refinement is needed to distinguish between symbolic, decorative, and script-related signs and to clarify the structural logic of the system.

3.7. Regional and Local Corpora of Signs: Fragmented Windows into a Wider Symbolic Landscape

Beyond comprehensive inventories such as those by Winn, Haarmann, Lazarovici, and Merlini, several catalogues have focused on regional corpora of signs from specific areas, cultures, and chronological phases within southeastern Europe. These contributions vary in scope, methodological rigor, and relevance to the study of the Danube Script.

In 1982, Šarlota Joanović published a list of 233 signs from artefacts housed in the National Museum of Vršac (Serbia), primarily from the sites of At (Vršac) and Kremenjak (near Potporani), attributed to the Vinča B2 and C phases.[127] Her compilation includes both single and compound signs, encompassing a wide range of markings—symbols, vessel bottom marks, action graffiti, and possible writing signs—grouped under the general term *signs*. While valuable for documenting local variation, the catalogue does not distinguish clearly between symbolic, decorative, and script-related elements.[128]

In the early 1980s, Serbian archaeologists Vojislav Trbuhović and Milivoje Vasiljević identified a set of individual and grouped signs from the Podrinje region (spanning parts of western Serbia and eastern Bosnia-Herzegovina),

[126] M. Merlini, "Semiotic Approach to the Features of the 'Danube Script'," *Documenta Praehistorica* 32 (2005), 233–251.

[127] Š. Joanović, *Neolitsko naselje Kremenjak kod Potpornja: katalog uz izložbu, Vršac* (Vršac: Narodni muzej u Vršcu, 1982), 134–135.

[128] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 160.

which contains over 250 Neolithic settlements, notably Jela (modern-day Benska Bara). They described recurring inscriptions on ceramic vessels, organized in precise rows and interpreted as ownership marks, possibly representing "the earliest form of writing".[129] These signs were:

- *Geometric*: including meanders, spirals, and cross-hatchings.
- *Linear and abstract*: resembling proto-writing or mnemonic symbols.
- *Grouped in sequences*: suggesting possible syntactic or communicative structure.

However, no formal catalogue of these signs was compiled, limiting their integration into broader inventories.[130]

In 1993, Henrieta Todorova and Ivan Vajsov produced a table of "sacred signs" from the Bulgarian Neolithic and Copper Age.[131] Their corpus, however, lacks analytical clarity, combining and confusing decorative motifs, symbols, seal impressions, and potential numeric marks. When assessed through Marco Merlini's framework, the table does not contain verifiable writing signs and is therefore unsuitable for constructing a Danube Script inventory.[132]

Between 1995 and 2004, Greek archaeologist Adamantios Sampson documented inscriptions—termed "symbols-letters" because they resemble early script-like characters —from several Neolithic sites in Greece and in the Aegean,[133] including the Cave of the Cyclops (Youra), Ftelia (Mykonos), Yali (near Nisyros), the Skoteini Cave (Tharrounia), and Early Bronze Age Meolos.[134] Sampson proposed that "a communication code, which could belong to a Protobalkan script," that may have existed in the Neolithic Balkans predating more formalized writing systems like Linear A and B.[135] This suggests possible cultural and communicative links between the Aegean and the Balkans during the Neolithic. Notably, the inscriptions he published align with the Danube Script

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[129] V. Trbuhović and M. Vasiljević, *Najstarije zemljoradničke kulture u Podrinju* (Shabac: Narodni muzej, 1983).

[130] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 160.

[131] H. Todorova and I. Vajsov, *Novokameniata epoha v Bulgaria* (Sofia: Nauka i izkustvo, 1993), 229, fig. 226; 230, fig. 227; 231–233; 280.

[132] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 167.

[133] E. Karantzola, A. Sampson, and L. Ioannis, "Some Recorded Signs of Early Writing in Greek Prehistory: Theoretical Considerations on a Temporal and Spatial Dimension," in *International Conference Settlers and Settlements in Greece, 9000–1000 BC* (Rhodes: University of the Aegean, 2002); M. Merlini, "A Semiotic Matrix to Distinguish between Decorations and Signs of Writing in the Danube Civilization," *Acta Terrae Septemcastrensis* 6 (2007), 116.

[134] A. Sampson, *The Cave of the Cyclops: Mesolithic and Neolithic Networks in the Northern Aegean, Greece*, vol. I (Philadelphia: INSTAP Academic Press, 2008).

[135] A. Sampson, *The Neolithic Settlement at Ftelia, Mykonos* (Rhodes: University of the Aegean, 2002), 127.

inventory developed by Merlini.[136] Sampson estimated an inventory of 30–40 signs, with several variants, though he has not yet released a comprehensive catalogue.

In conclusion, these regional corpora offer important insights into the geographic distribution and cultural diversity of symbolic systems in Neolithic southeastern Europe. However, their utility for reconstructing a coherent Danube Script inventory is uneven. While Joanović, Trbuhović, Vasiljević and Sampson contribute valuable datasets, others—such as Todorova and Vajsov—lack the methodological precision required for semiotic analysis. The absence of formal catalogues and clear distinctions between decorative, symbolic, and script-related signs remains a recurring limitation in regional studies.

3.8. Marco Merlini's Archaeo-Semiotic Model and the Danube Script Database

Over several decades, Marco Merlini conducted an extensive archaeo-semiotic investigation into the existence of an original, primarily non-linguistic writing system in southeastern Europe. His findings, summarized in *An Inquiry into the Danube Script* (2009), analyze the Neolithic and Copper Age sign systems of the Danube Civilization, a cultural complex central to prehistoric southeastern Europe.[137]

Merlini's approach integrated semiotic analysis with archaeological context, using each as a lens to interpret the other. He argued that understanding the widespread prehistoric artefacts bearing signs requires both knowledge of the principles and organization of sign systems and insight into the archaeological context of the societies that created or adopted them, in order to discern their communicative motivations and features. This interdisciplinary method addressed gaps in existing scholarship, not integrating semiotics and archaeology, and built upon a small number of earlier pioneering studies.

Merlini began by compiling and critically reviewing published and unpublished excavation records in multiple languages (including Romanian, Greek, Bulgarian, Serbian, Macedonian, Croatian, Czech, German, Hungarian, Ukrainian, Polish, and Italian). A key priority was direct examination of artefacts to avoid the distortions caused by poor-quality photographs or inaccurate drawings—errors that had compromised earlier interpretations of both fragmentary, lightly incised marks on potsherds held in small village museums and deeply engraved inscriptions on well-known artifacts stored in major

[136] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 164.

[137] For an assessment of Merlini's archaeo-semiotic research, see M. Merlini, "A Neolithic Writing in Southeastern Europe. An Assessment of the Research," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025), 41–49.

collections, such as the Tărtăria tablets[138] and the Gradešnica shallow receptacle.[139]

Recognizing the subjectivity inherent in identifying marks with semiotic value—researchers tend to perceive what they expect to find—, Merlini developed a "Matrix of Semiotic Rules and Markers" to analyze the features, spatial organization, and associations of Danube marks, symbols, and signs.[140] This tool aimed to distinguish genuine writing signs from other communicative modes within what he termed the Danube communication system—a sophisticated semiotic network encompassing tallies, marks, emblems, symbols, and script signs, used for interaction both among humans and with the divine powers.

The matrix identified and differentiated multiple communicative categories, including: [141]

- *Ritual marks* (e.g., cultic graffiti, psychograms, repeated outlines as transformative patterns, imitative "writing" by non-literate individuals).
- *Emblematic and ornamental motifs*.
- *Magic-religious symbols*.
- *Divinity identifiers*.
- *Personal, familial, or ownership marks*.
- *Lineage, community, status, or authority indicators*.
- *Memory aids*.
- *Numerical and numerological notations*.
- *Calendrical and chronographic annotations*.
- *Terrestrial maps and celestial charts*.
- *Signs denoting bio-energetic points of the human body*.

Merlini's next step was the creation of *DatDas* (Databank for the Danube Script), developed also with generous full access to Gheorghe Lazarovici's *Zeus* database. *DatDas* records inscribed artefacts, signs, and inscriptions using standardized identity cards to ensure statistical reliability. Given the script's weak phonetic association and the improbability of reconstructing its related

[138] Gh. Lazarovici, C.-M. Lazarovici, and M. Merlini, *Tărtăria and the Sacred Tablets* (Cluj-Napoca: Editura Mega, 2011), 162 ff.

[139] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 333 ff.

[140] M. Merlini, "A Semiotic Matrix to Distinguish between Decorations and Signs of Writing in the Danube Civilization," *Acta Terrae Septemcastrensis* 6 (2007); M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 169 ff.

[141] M. Merlini, Z. Maxim, Gh. Lazarovici, and C.-M. Lazarovici, "The Catalogue of Signs," in Z. Maxim, J. Marler, and V. Crișan (eds.), *The Danube Script in Light of the Turdaș and Tărtăria Discoveries* (Cluj: The National History Museum of Transylvania and the Institute of Archaeomythology, 2009), 131–210.

language, statistical analysis of a large dataset was deemed the most effective decoding strategy.

DatDas catalogued 5,421 individual signs from 1,178 inscriptions (two or more signs) and 971 inscribed artefacts (some featuring multiple inscriptions), generating approximately 194,000 statistically significant entries—the most extensive Danube Script corpus to date. The database integrated archaeological and semiotic data, including photographs and drawings, within an online research environment.

From this corpus, Merlini established an inventory of 292 sign types:

- *203 abstract signs*, including 32 root-signs (varied through three modification techniques to produce 167 derivatives; only four remain invariant).
- *52 pictograms/ideograms*.
- 37 *numerical notations*.

DatDas provided a historical, geographical, and typological overview of the Danube Script, aligning its life cycle with the Danube Civilization Phases (DCP) of the Neolithic and Copper Age. The script's distribution extended from the Carpathian Basin to the Thessalian Plain, and from the eastern Alps and Adriatic Sea to the Ukrainian steppe—a relatively cohesive macro-region of dynamic farming societies, each exploiting local resources but also long-range trade networks.

The reliability of *DatDas* was tested across various dimensions, including the life cycle of the sign systems, geographical patterns, cultural complexes and groups, categories of signs,[142] the typology of inscribed objects (e.g., inscribed anthropomorphic figurines),[143] and notable icons of the Danube Script such as the Gradešnica shallow receptacle[144] and the Tărtăria tablets.[145] Sub-databases—

[142] M. Merlini, "Semiotic Approach to the Features of the 'Danube Script'," *Documenta Praehistorica* 32 (2005), 233–251; M. Merlini, "A Semiotic Matrix to Distinguish between Decorations and Signs of Writing in the Danube Civilization," *Acta Terrae Septemcastrensis* 6 (2007), 73–130; M. Merlini, "The Archaeo-Semiotic Research on the Danube Script: A Critical Overview," *Archaeological Discovery* 5, no. 3 (2017), 192–207.

[143] M. Merlini, "Writing on Human Skin Made of Clay," in J. Marler (ed.), *The Danube Script: Neo-Eneolithic Writing in Southeastern Europe* (Sebastopol: Institute of Archaeomythology and Brukenthal National Museum, 2008).

[144] M. Merlini, "Milady Tărtăria and the Riddle of Dating Tărtăria Tablets," Prehistory Knowledge Project, Rome, 2005; M. Merlini, "The Gradešnica Script Revisited," *Acta Terrae Septemcastrensis* 5 (2006), 25–78.

[145] M. Merlini, *La scrittura è nata in Europa?* (Rome: Avverbi Editore, 2004); M. Merlini, "The Old European Script. Further Evidence, Economic and Religious Stimuli," Prehistory Knowledge Project, Rome, 2004; M. Merlini, "The Sacred Cryptograms from Tărtăria: Unique or Widespread Signs?" in J. Marler (ed.), *Fifty Years of Tărtăria Excavations* (Suceava: Institute of Archaeomythology, 2014).

DatVinc (Vinča culture),[146] *DatTur* (Turdaş culture),[147] and *DatPCAT* (Precucuteni-Cucuteni-Ariuşd-Trypillia complex)[148]— revealed that regional variants, such as the "Turdaş script," were light modifications within the overarching Danube Script,[149] and that the PCAT complex preserved evidence of a late, related script.[150]

Merlini applied the term Danube Civilization to the Neolithic and Copper Age societies of southeastern Europe (c. 6400–3500/3300 BCE), recognizing them as complex, ideologically cohesive cultures,[151] whose institutional, economic, and social networks were facilitated by the Danube River system. In this framework, literacy—broadly defined—was considered a hallmark of civilization, placing the Danube complex alongside Mesopotamia, Egypt, the Indus Valley, China, and ancient Iran in discussions of early complex societies.[152]

Written expressions within the Danube Civilization primarily served to ensure the precise and detailed transmission of information between humans and the divine—prayers, offerings, thanksgivings, and ex-votos—crafted to achieve

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[146] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009); M. Merlini, "Danube Script and Gradešnica Script: New Insights," in *Signs of Civilization* (Novi Sad: Institute of Archaeomythology, 2013).

[147] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009); M. Merlini, "Tărtăria Tablets: Fresh Evidence on an Archaeological Thriller," in *Circumpontica in Prehistory* (Oxford: Archaeopress, 2009); M. Merlini, "Evidence of the 'Turdaş Script' from a Dedicated Database," *The Journal of Archaeomythology* 7, no. 1 (2011); M. Merlini, "Danube Script and Gradešnica Script: New Insights," in *Signs of Civilization* (Novi Sad: Institute of Archaeomythology, 2013).

[148] M. Merlini, "Danube Script and Gradešnica Script: New Insights," in *Signs of Civilization* (Novi Sad: Institute of Archaeomythology, 2007); M. Merlini, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008).

[149] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009); M. Merlini, "Tărtăria Tablets: Fresh Evidence on an Archaeological Thriller," in *Circumpontica in Prehistory* (Oxford: Archaeopress, 2009); M. Merlini, "Evidence of the 'Turdaş Script' from a Dedicated Database," *The Journal of Archaeomythology* 7, no. 1 (2011); M. Merlini, "Danube Script and Gradešnica Script: New Insights," in *Signs of Civilization* (Novi Sad: Institute of Archaeomythology, 2013).

[150] M. Merlini, "Danube Script and Gradešnica Script: New Insights," in *Signs of Civilization* (Novi Sad: Institute of Archaeomythology, 2007); M. Merlini, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008); M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009).

[151] N. Yoffee, K. W. Kroll, and J. C. Biers (eds.), *Social Theory and Archaeology* (Cambridge: Cambridge University Press, 2005), 253.

[152] V. G. Childe, *The Danube in Prehistory* (Oxford: Oxford University Press, 1929); H. Haarmann, *Geschichte der Schrift* (Munich: Edition Monacensia, 2002), 17 ff.; M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009).

ritual perfection capable of compelling divine attention and response. Data from *DatDas* also document the use of literacy for record-keeping associated with cyclical ritual events and cosmic regularities, as well as its integration into magical practices such as divination, funerary rites, and initiation ceremonies.[153] Over time, the sign system expanded to convey secular matters.[154] The Danube Civilization was characterized by an advanced subsistence farming economy supported by improved agrarian techniques, a sedentary lifestyle in permanent settlements, and proto-urban centers with planned layouts, durable architecture, and a clear distinction between profane structures (dwellings, workshops, communal buildings) and sacred spaces (sanctuaries, temples). Technological sophistication in weaving, pottery, construction, and metallurgy, combined with long-distance trade in prestige goods, reflected a semi-egalitarian yet increasingly specialized and socially complex society.

This socio-economic framework was deeply embedded in an ideological system hinged on agricultural fertility expressed in refined art, potent magical-religious symbolic imagery, intense spiritual life, and complex religious organization. The growing complexity of economic, social, and ritual life created a need for innovative means to record, manage, and transmit expanding bodies of information. This demand fostered the development of the Danube communication system and the Danube Script as its integral component.[155]

The communicative innovation enabled the creation of archives for storing, processing, and disseminating information, reinforced group solidarity and communal identity, supported the efforts to construct dwellings, cult places, and proto-cities, conveyed symbolic and inspirational meanings, and aided in interpreting the natural world, social relations, and divine obligations. In this light, the Danube Civilization and its script challenge the traditional restriction of "early civilization" to the Near East and other long-studied regions, extending the concept to Neolithic and Copper Age.[156]

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[153] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 675. It is not a very dissimilar situation to that of ancient Egypt, where the sacredness of writing was its very essence (the term 'hieroglyph' means 'sacred writing').

[154] . Comșa, "The Symbolism of Writing in Prehistoric Europe," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025); S. Paliga, "Prehistoric Symbolism and the Pre-Indo-European Heritage," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025).

[155] M. Merlini, "The Danube Script as a Tool of Ancestry Ideology in a Kinship-Based Society," in Z. Maxim, J. Marler, and V. Crișan (eds.), *The Danube Script in Light of the Turdaș and Tărtăria Discoveries* (Cluj: The National History Museum of Transylvania and the Institute of Archaeomythology, 2009), 87–111.

[156] M. Merlini, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 111–196.

The transition from an oral to a literate culture in the Danube region predated other ancient scripts by roughly two millennia. However, this process was "frozen" in an early developmental stage due to the collapse of this civilization. The large number of signs in the inventory reflects the logographic principle, requiring distinct signs for individual concepts or ideas.[157]
While Merlini's study is detailed and methodologically rigorous, several limitations merit consideration:

- *Subjectivity in sign identification.* Without advanced imaging technologies, recognition and cataloguing of faint or fragmentary inscriptions risked confirmation bias, shaped by the researcher's expectations.
- *Analytical constraints*. Gaps in mathematical, statistical, and computational methods limited the database's potential for revealing functional categories, compositional rules, and organizational conventions.
- *Database accessibility*. Although *DatDas* is extensive and well-structured, its limited public access restricts collaborative verification; an open-access platform could enhance scholarly engagement and facilitate peer verification of Merlini's findings.
- *Temporal and regional generalization*. While *DatDas* supports viewing the Danube Civilization as a cohesive cultural unit, it is less effective in refining local and chronological variations.
- *The "frozen" development hypothesis*. The claim that the script's evolution was halted by the civilization's collapse lacks conclusive evidence. An alternative view is that the signs—largely magical or ritual in nature—were never intended to develop into a full writing system, raising questions about the cultural and social factors shaping their use.

4. Gheorghe Lazarovici's Database and the Systematization of Sacred Signs

4.1. A Digital Repertory of over 650 signs and symbols

It is impossible to conceive Gheorghe Lazarovici disconnected from his always in progress database containing information about signs and symbols related to the Neolithic and Copper Age spiritual life in southeastern Europe. He was persuaded that grouping and statistically analyzing a large number of signs and symbols in a database with a wide and well-articulated structure is a major tool to determine the meaning of the prehistoric graphic messages.[158]

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[157] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 675; H. Haarmann, "Eurowriting: The Historical Context of Antiquity," *Journal for EuroLinguistiX (JELiX)* 21 (2024), 107.
[158] If we group the signs and symbols in a database with a large structure which permits conventional notations (which are sometimes contradictory), it may be possible to

Drawing upon his monumental database of 3,700 records related to spiritual life and religious beliefs, Gheorghe Lazarovici developed a catalogue of over 650 signs and symbols.[159] This database, initiated in 1986 during "an initial period of naive enthusiasm",[160] incorporates a custom software system named *Zeus*, which was created and finalized between 1991 and 1996.[161] Although the database of Neolithic signs and symbols enabled extensive analytical work—including tabular analysis, seriation, graphical representation, classification, hierarchical statistical categorization, and the drawing and cataloging of pottery shapes based on approximately 60,000 data points—interest in this research remained limited. Following the 2002 symposium in Karlovo (Bulgaria), Lazarovici acknowledged that "most of our colleagues were not interested in this research." However, a new and dynamic phase emerged at the end of this period, catalyzed by Marco Merlini's initiatives in 2003, the *Tower of Babylon* exhibition (published in four volumes that same year), and the 2004 symposium *Signs of Civilization* held in Novi Sad.[162] These events reinvigorated scholarly engagement, and several among Lazarovici's M.A. students began working with the databases achieving notable results. The software *Zeus* became both a burden and a source of inspiration for generations of archaeology students. It was a burden due to the complexity of its matrix, its counter-intuitive interface, and its lack of user guidance—errors were met with no explanatory feedback.[163] Yet it was also a source of delight, as its analytical capabilities yielded highly productive outcomes.

However, the *Zeus* program, central to his database, is now technologically obsolete. Furthermore, the database does not include images of either the

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determine the significance of the signs and symbols" (Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 96).

[159] For a substantial examination of Gh. Lazarovici's catalogue of sacred signs, see: M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 135 ff.; M. Merlini, "A Neolithic Writing in Southeastern Europe. An Assessment of the Research," in S. Paliga and L. Bonga (eds.), *Symbolism as Pre-Writing System in Anatolia and Southwest Europe* (Lausanne: Peter Lang, 2025), 38–41.

[160] Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 94.

[161] M. Tarcea and Gh. Lazarovici, *The Sacred Tablets of Tărtăria* (Cluj-Napoca: Editura Napoca Star, 1996); Gh. Lazarovici, *The Sacred Tablets of Tărtăria* (Cluj-Napoca: Editura Napoca Star, 1996); Gh. Lazarovici and D. Micle, *Situri arheologice din judeţul Timiş* (Timişoara: Mirton, 2001).

[162] Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 95.

[163] Gh. Lazarovici, "New Archaeological Data Referring to Tărtăria Tablets," *Documenta Praehistorica* 30 (2003); Gh. Lazarovici, "New Information and the Role of the Tărtăria Discoveries," in J. Marler (ed.), *The Danube Script: Neo-Eneolithic Writing in Southeastern Europe* (Sebastopol: Institute of Archaeomythology, 2004), 21.

inscribed artifacts or the inscriptions themselves. Their inclusion could allow for verification of standardized signs against the original marks on artifacts, thereby improving the catalogue's reliability.

Gheorghe Lazarovici did not have the opportunity to publish an updated and systematic version of his inventory of signs. Subsequent versions appeared in 2004, in the article 'Simboluri sacre pe obiectele de cult. Semnificaţii',[164] in 2008, in 'Database for Signs and Symbols of Spiritual Life',[165] in 2009, in 'Database for Spiritual Life, Signs and Symbols'.[166] To the best of my knowledge, I published the most systematic version of his inventory in my 2009 volume *An Inquiry into the Danube Script*.[167] For the present publication, I reconstructed what may be considered "his final inventory of signs" by collecting and reorganizing material from his most recent writings, our correspondence, and a glimpse into his computer, a quiet and intimate gesture that allowed me to gather fragments of his final thoughts and intentions.

It is not the conclusion of a demanding task, but rather its beginning. Lazarovici's database had become too extensive for a single scholar to manage effectively with limited IT resources. As a result, three main inconsistencies were introduced.

First, different signs were assigned the same repertory number. For example: and  ;  and  ;  and  ; and . This issue occurs repeatedly, with a total of 11 duplications.

Second, different inventory numbers were sometimes assigned to the same sign. For example:  and  ;  and ; and ; and . In total, 25 such duplications have been identified. In one particularly striking case, the same sign-  - was given three distinct numbers: 127p1, 130 and 13d.

Third, Lazarovici distinguished between signs that are in fact variations of a single form. For instance, a V-shaped sign may be represented as more or less open, or a square form may appear with rounded or sharp right angles. These differences reflect local traditions or the stylistic preferences of individual scribes rather than genuinely distinct signs. Notable cases include:  ,  , and

[164] Gh. Lazarovici, "New Information and the Role of the Tărtăria Discoveries," in J. Marler (ed.), *The Danube Script: Neo-Eneolithic Writing in Southeastern Europe* (Sebastopol: Institute of Archaeomythology, 2004).

[165] Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008).

[166] Gh. Lazarovici, "Tărtăria Tablets: Fresh Evidence on an Archaeological Thriller," in L. Nikolova, M. Merlini, and A. Comşa (eds.), *Circumpontica in Prehistory* (Oxford: Archaeopress, 2009).

[167] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009).

 ;  ,  and ;  ,  , and  . The total number of duplications or triplications of this kind amounts to 13.

I wish to acknowledge and thank my colleagues from the Prehistory Knowledge Project for undertaking the initial work of cleaning and rationalizing Gheorghe Lazarovici's inventory of signs and symbols.[168]

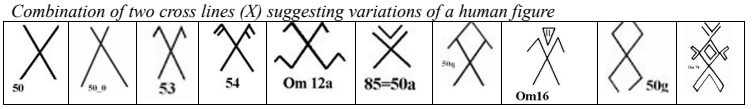
[168] I especially thank Luisa Palomba, Venanzio Cretarola, and Lucia Scarpitti.

Annex 1 Gheorghe Lazarovici's repertory of sacred signs

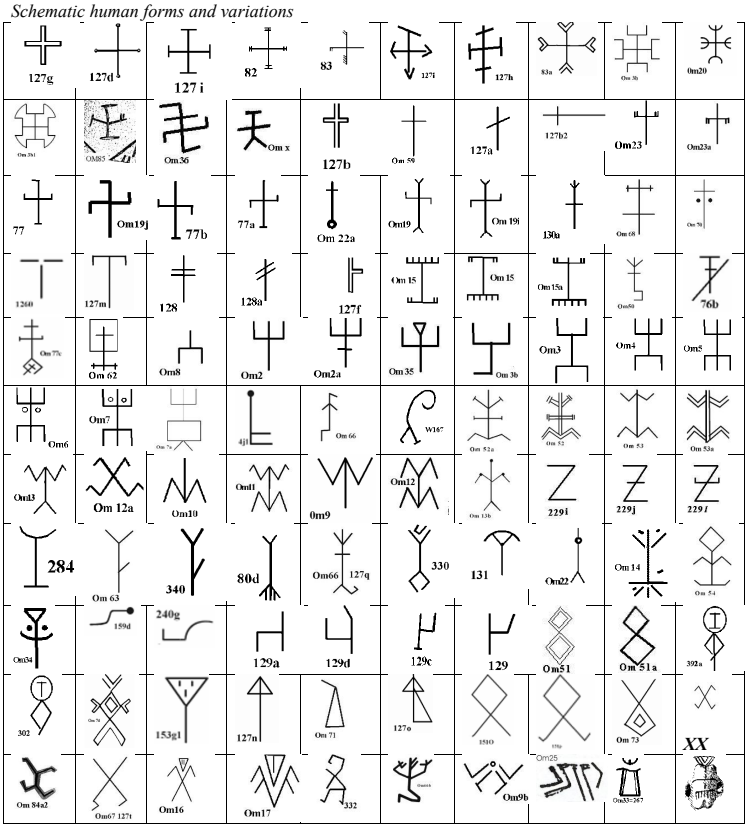
Symbolic themes

Human body and its actions

Combination of two cross lines (X) suggesting variations of a human figure



Schematic human forms and variations



Appendix 1. LAZAROVICI'S INVENTORY.

Gheorghe Lazarovici made a concerted effort to move beyond a purely geometric classification of signs by grouping them according to both their geometric shapes and their suggested meanings. In 2004, for the Novi Sad Symposium, he

distinguished between signs and symbols, creating two lists: one comprising 1,700 records of signs and another containing 3,100 records of symbols.[169] According to his framework, a *symbol* is a conventional sign, object, or image that represents or evokes (or has represented/evoked) another concept or entity for the viewer. He poetically defined a symbol as a "cipher of a mystery," an element that has to be deciphered because its meaning transcends its immediate form.[170] Symbols, being multidimensional, derive their meanings from their context, placement, and combinations with other signs. For instance, a rhombus may signify the entire human body, head, face, eye, body, belly, vulva, sexuality, or other concepts depending on its graphic variants and the cultural milieu in which it acts.[171] For this reason, in the section *"Symbolic Themes"* of the inventory of Lazarovici's signs and symbols that I am publishing, they are listed under the category corresponding to their predominant meaning, although in some limited cases they appear in more than one category. Sticking with the example of the rhombus and its graphic variations, and applying it to the incised sacred bread, the following are some of Lazarovici's interpretations. Head-arms-womb-feet:  ; rocky body-arms-sex:  ; head:  ; rocky head:  ; womb:  ,  ,  ,  ; womb connected to *Cassiopeia*:  ; vulva and womb:  ; state of the vulva (?):  ; vulva at the time of conception:  ; fecundated vulva:  ; womb with fetus:  ; and coupling:  .[172]

Through the interpretation of symbols, Lazarovici maintained that it is possible to gain insight into the mentality of prehistoric societies, and in particular into religious phenomena. In accordance with this perspective, his database emphasizes sacred symbols—those imbued with divine, holy, or revered connotations. It is structured into six principal frameworks, which reflect his methodological orientation and research interests:[173]

- *Archaeological information*: details about the discovery of inscribed artifacts, including locality, place, section, quadrant, depth, complex, region, and country.

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[169] Gh. Lazarovici, "Tărtăria Tablets: Fresh Evidence on an Archaeological Thriller," in L. Nikolova, M. Merlini, and A. Comşa (eds.), *Circumpontica in Prehistory* (Oxford: Archaeopress, 2009).

[170] J. Chevalier and A. Gheerbrant (eds.), *A Dictionary of Symbols*, vol. I (London: Penguin Books, 1996), 22, 29, 37.

[171] Gh. Lazarovici and C.-M. Lazarovici, *The Sacred Tablets of Tărtăria: An Updated Perspective* (Cluj-Napoca: Editura Mega, 2024).

[172] Gh. Lazarovici and C.-M. Lazarovici, *The Sacred Tablets of Tărtăria: An Updated Perspective* (Cluj-Napoca: Editura Mega, 2024).

[173] Gh. Lazarovici, "Tărtăria Tablets: Fresh Evidence on an Archaeological Thriller," in L. Nikolova, M. Merlini, and A. Comşa (eds.), *Circumpontica in Prehistory* (Oxford: Archaeopress, 2009).

- *Cultural and chronological* context*:* information on the epoch, culture, phase, dating, absolute chronology, etc.
- *Object identification:* classification of inscribed objects by name, class, and subclass (e.g., idols, altars, shrines, seals, tablets, pots, cult vessels), allowing standard, minimum and maximum descriptions for their identification.
- *Cultural analysis*: thematic descriptions and associations with primary or secondary cult practices (e.g., theme, idea, subject, characters, main cult, secondary cult).
- *Sign placement*: data on the positioning of sacred signs on objects (e.g., on the head, face, neck, or abdomen), enabling subsequent interpretation.
- *Meaning and context*: interpretations of signs or symbols relative to their placement (e.g., a triangle on a face representing an eye or light; in other contexts, the same mark might symbolize feminine attributes like virginity or fecundity) or cultural parallels (similar signs in related or later civilizations).

Lazarovici defines writing in a non-univocal manner. In some works, he described it as the representation of spoken language through conventional signs denoting sounds (phonemes, syllables, or words). In other works, he extended the definition to include the reproduction of both speech and thoughts by means of conventional signs. The coding within his system is categorized according to two main criteria:

1. *Significance*: signs are grouped into two main thematic representations, *pictograms* (e.g., bird, cup, plant, or humans—adult, child, fecundity-pregnancy, head, hands, legs, sex) and *ideograms* (glyphs, for example, to invoke rain or fertility; signs denoting abstract orders such as numerology; or forms of celestial bodies and their motions).
2. *Geometric Principle*: root signs (e.g., arrow, angle, triangle, rhombus, right angle, cross, X, Y, MW, circle, half-circle, spiral), which can be modified to generate derived signs.[174]

Although Lazarovici regards writing primarily as a system of conventional signs representing sounds, his approach to the so-called by him *Danubian script*[175] tends toward pictographic and ideographic analysis. Consequently, he partially overlaps the domains of symbols and written signs, interpreting the latter through symbolic frameworks by employing the following steps:

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[174] Gh. Lazarovici, "New Information and the Role of the Tărtăria Discoveries," in J. Marler (ed.), *The Danube Script: Neo-Eneolithic Writing in Southeastern Europe* (Sebastopol: Institute of Archaeomythology, 2004).

[175] Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 110.

1. *Iconic decoding*: identifying recognizable elements, such as human or animal anatomies (e.g., head, hands, horns) or combinations (e.g., mother and infant in her arms).
2. *Interpretation*: deciphering signs as pictograms (e.g., animal horns as a bucranium) or ideograms (e.g., a bucranium symbolizing the sacred power of the bull).

The interpretation of ideograms is often complicated by their esoteric nature in antiquity, likely restricted to initiated individuals. To address this, Lazarovici incorporated the concept of archetypes in decoding symbols, with particular emphasis on:

- Natural Forces: rain, sky, earth, and water.
- Dualities: yin-yang, sun-moon, light-dark, joy-sorrow.
- Sacred numerology.
- Mythological themes: the land of ancestors, creation myths, etc.

Lazarovici's method is clear: the archaeological context, considered in conjunction with other related information, provides valuable insights into the sign system employed in the Danube Civilization (including the Tărtăria tablets). In turn, sign analysis functions as a filter for archaeological data. Since the mid-1980s, he has produced numerous catalogues and dictionaries to classify this archaeo-semiotic material and to organize it into codes.

Confronted with the limitations of computer memory and compelled to devise innovative personal solutions, he employed mathematical algorithms to correlate data, thereby discerning direct and indirect connections between objects and their semiotic features within specific archaeological contexts. The final results were presented in seriated and hierarchical tables, illustrating the evolution of different categories of signs and symbols and their use in conveying structured packages of information.

Unfortunately, the principles employed by Lazarovici for distinguishing symbols from script signs remain not fully clear. By blurring the boundaries between symbol and writing, Lazarovici's interpretation sometimes treats symbolic marks, decorative motifs, and literacy as part of a single continuum. This ambiguity makes it difficult to distinguish between true communicative writing systems and broader symbolic or ritual sign use. The exclusive emphasis on a sacred-symbolic repertoire raises questions about the inclusivity of the catalogue. It remains uncertain whether non-religious signs were deliberately excluded or whether, as in Gimbutas's approach, all signs were considered sacred.

While illuminating, his limited focus on ritual meaning can overshadow more mundane or practical uses of signs in the final, yet prolonged, phase of the Danube Script (e.g., ownership marks, counting systems, or clan identifiers).

4.2. Conceptual categories

Lazarovici has divided his repertory of sacred signs into three + one macro-classes.

According to the *Significance* criterion, pictograms and ideograms illustrate:

- *Symbolic themes*: Human body and its actions; constructions; animal and vegetal world; elements and forces
- *Abstract order / numerology*
- *Astronomical signs*: Sun, Moon; time, season; stars and constellations

According to the *Geometric Principle,* the root signs are:

- line; arrow; Y-shaped; orthogonal angle and angular lines; T, F, E-shaped; square; lozenge-rhombus; triangle; V-shaped angle; X and combinations; M, W and their combinations; cross and combinations; P shaped; circle, dot; semicircle; spiral, curve, arch, meander, Z.

Let us now delve deeper into the category of the *Human body and its actions*, which is divided into the following groups:

- *Combination of two crossed lines (X) suggesting a human figure and its variations*. In the Vinča A phases, the human body is often represented by a simple or complex X-shape. Some signs are derived from the X-shape to indicate the two human parts, or to express the union of above and below, and of left and right. At times, the upper part of the human figure based of the X-shape consists of multiple V-shapes (e.g., the signs  and ), symbolizing the intensity of desire, invocation or the reception of divine wisdom. It may also function as a sign of power.[176]
- *Schematic human forms and variations*. For example, the elderly man is always walking to the right  .[177]
- *Gender principle*: androgenic or sexually unspecified human beings; female, the feminine principle; male, the masculine principle
- *Aspects of the body*: sex-vulva; sex-phallus; head, face-mask; eye/eyes of divinity; hands; palms; legs-feet; breasts/breasts of divinity; womb, belly and navel.
- *Ritual actions:* Offering, libation, cup-pot; orant, invocation of the divinity; orant, invocation for rain and/or natural fertility. For example, code 166  may represent rain, and 165a  rain with wind.[178] Other

[176] Gh. Lazarovici and C.-M. Lazarovici, *Sacred Symbols and the Tărtăria Tablets: New Interpretations* (Cluj-Napoca: Editura Mega, 2022).

[177] Gh. Lazarovici and C.-M. Lazarovici, *Sacred Symbols and the Tărtăria Tablets: New Interpretations* (Cluj-Napoca: Editura Mega, 2022).

[178] Lazarovici based his interpretation on examples from Turdaş, such as a Late Neolithic storage vessel depicting an orant-like figure invoking rain from the heavens. The figure represents a female deity, whose gender is indicated by the presence of breasts, while her divine status is underscored by well-known sacred attributes—most notably, the crossed bands. Surrounding her right hand are several stylized, long-legged water birds, traditionally associated with the arrival of spring and the rebirth of vegetation. The

signs of rain are  and  . Rain with storm:  ; invocation for gravidity, gestation, mother and child (fecundity and its invocation; couple and copulation; fecundation, gravidity-gestation, mother and child).

Exemplary of Lazarovici's approach are the signs and symbols associated with the human body, as expressed on figurines and vessels.

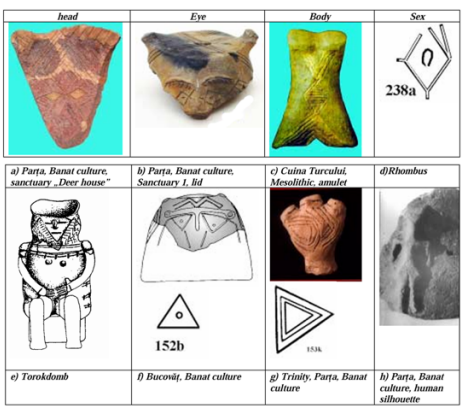

Fig. 2. Rhombus or triangle representing.

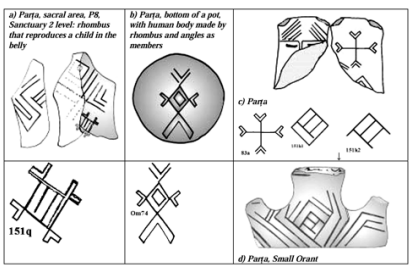

Fig. 3. Rhombus in relation to the human body.

"Mother of Lightning" holds in her right hand a flash of lightning, rendered as three descending zigzag lines from sky to earth. These three lines may symbolize the tripartite nature of thunder: fire, light, and sound. The descending lines also evoke rainfall. The image may illustrate a myth in which the Great Mother embodies the power of celestial fire. See: M. Roska, *A Torma Zsófia Gyűjtemény* (Cluj: Minerva Irodalmi és Nyomdai Műintézet R.-T., 1941); Gh. Lazarovici, "L'interpretazione dei simboli sacri nella preistoria europea," in C.-E. Ursu, A. Poruciuc, and C.-M. Lazarovici (eds.), *From Symbols to Signs* (Suceava: Editura Karl A. Romstorfer, 2015), 40.

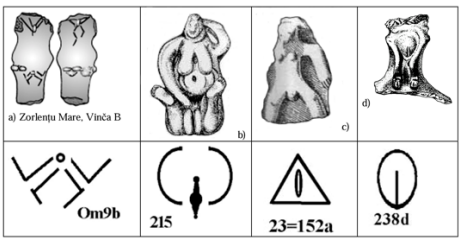

Fig. 4. Symbols related to birth-giving.

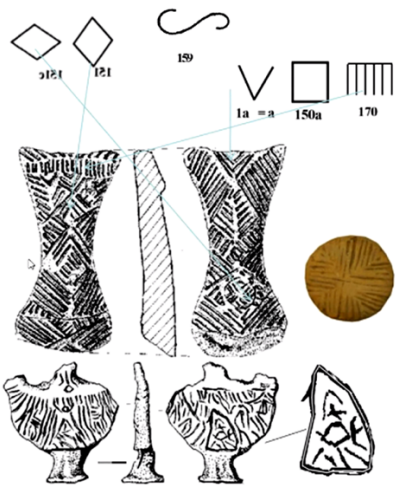

Fig. 5. Symbols of mother and child.

From the foregoing examples, centered on representations of the human body, it may be inferred that symbols are inherently multidimensional, their meanings shaped by place, position, or context. A single geometric form—such as a rhombus or triangle—and its graphic variations can signify a wide range of concepts.

In particular, the notion of sexuality emerges in diverse variants and hypostases, reflecting a complex symbolic language. Among the recurring themes is the representation of fertility, often associated with a cult of fecundity. These symbolic expressions suggest a ritualized and deeply embedded cultural framework in which bodily forms and abstract shapes function as conduits for conveying spiritual, social, and reproductive meanings. The feminine and masculine signs discussed by André Leroi-Gourhan and others exhibit remarkable longevity, from Paleolithic rock art to thirty millennia later, indicating continuity or convergence.[179]

Other symbolic categories include:*Constructions*;

[179] A. Leroi-Gourhan, *Les Religions de la Préhistoire* (Paris: Presses Universitaires de France, 1964); A. Leroi-Gourhan, *Préhistoire de l'Art Occidental* (Paris: Mazenod, 1965); J. Wood, *The Transmission of Symbols in Early Societies* (Oxford: Oxford University Press, 1991), 35; Gh. Lazarovici, "New Information and the Role of the Tărtăria Discoveries," in J. Marler (ed.), *The Danube Script: Neo-Eneolithic Writing in Southeastern Europe* (Sebastopol: Institute of Archaeomythology, 2004), tab. 2.

- *Animal and vegetal world*: animals and birds, either in their entirety (e.g., ovine are  ,  , and ; deer are) or their various aspects (e.g., head or bucranium); plants.
- *Elements and forces*: snake, smoke, water, hair.

Abstract order / numerology:

Lazarovici examined *numerologia sacră* (sacred numerology) as a component of a nascent symbolic script—what he termed *cultic writing*—[180] in which numbers played a structuring role within a symbolic and ritual framework. Sacred numbers are attested in monumental architecture and ritual installations at Early Neolithic sites such as Göbekli Tepe (southeastern Anatolia), Çatalhöyük (south-central Anatolia), and Lepenski Vir (Danube Gorges), indicating their integration into broader symbolic systems. Comparable marks recur across multiple sites in southeastern Europe, suggesting shared conventions for encoding ritual or mythological content. Incised signs and sequences of dots, lines, or schematic motifs—interpreted as early symbolic numerals—have been documented on clay plates from sites including Perieni, Glăvăneşti, Tărtăria, Orăştie, Turdaş, Phafos, Karanovo, Lozna, and others. Their wide geographical distribution points to a pan-regional communicative code rather than isolated decorative practices.

Lazarovici traced the origins of this numerological symbolism to the Paleolithic, noting parallels in Aurignacian, Gravettian, and Epigravettian contexts at sites such as Mitoc-Malu Galben (Romania) and Cosăuți (Moldova). He argued that from the earliest periods—through the Mesolithic and into the Neolithic and Chalcolithic—number-based signs accompanied both monumental and portable cultic elements, reflecting continuity in prehistoric religious expression.

Focusing on the shrines of the Precucuteni and Cucuteni cultures, he identified specific recurring numbers—particularly 3, 7, and 9—employed in the arrangement of figurines, benches, altar designs, and ritual pits. These numbers appear to embody cosmological principles or mythological cycles. Certain signs on ceramic artefacts may be regarded as proto-writing, embedding numerical and symbolic meaning beyond mere decoration. In this light, sacred numerology emerges as an integral and structuring element of ritual life in the Precucuteni–Cucuteni cultural sphere.[181]

Symbol 186 on Vinča A altars,  , represents the four directions, seasons and related concepts. Within numerological interpretation, the corresponding numbers are 2, 3 and 6.[182]

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[180] Gh. Lazarovici and C.-M. Lazarovici, *Sacred Symbols and the Tărtăria Tablets: New Interpretations* (Cluj-Napoca: Editura Mega, 2022).

[181] Gh. Lazarovici and C.-M. Lazarovici, *Sacred Symbols and the Tărtăria Tablets: New Interpretations* (Cluj-Napoca: Editura Mega, 2022).

[182] Gh. Lazarovici and C.-M. Lazarovici, *Sacred Symbols and the Tărtăria Tablets: New Interpretations* (Cluj-Napoca: Editura Mega, 2022).

Astronomical signs:

- *Sun, Moon*. In many instances, these astral bodies are associated to represent elements of the cosmic rhythm and as creators of fecundity and fertility on Earth.[183] Their combination appears on cult altars or on a number of figurines of the Boian culture depicting the nursing Great Mother Goddess. The eternal togetherness of Sun and Moon is most clearly illustrated by the spiral motif (comparable to *yin* and *yang*) such as  or also  and  Offerings obtained from the grinding of cereals are brought to the Sun-Moon couple, as documented by Lazarovici in Sanctuary 2 at Parța, ritually linking day and night to ensure the fertility of cereal crops and suggesting a symbolic passage from vegetal to human life, as cereals were transformed into food.[184] Distinctive Sun signs include:  and  . Distinctive Moon signs are:  , , and  .
- *Time, season*. Typical signs are:  ,  , , and .
- *Stars and constellations*. Examples among the stars include:  , and . Among constellations:  .
- *Cosmic Cycles*. For example,  , and .

Geometric signs:

- Line
- Arrow
- Y-shaped
- Orthogonal angle, angular lines
- T, F, E-shaped
- Square
- Lozenge-rhombus
- Triangle
- V-shaped angle
- X and combinations
- M, W and their combinations

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[183] M. Eliade, *A History of Religious Ideas, vol. I: From the Stone Age to the Eleusinian Mysteries* (Chicago: University of Chicago Press, 1981), 42–43.

[184] Gh. Lazarovici and Z. Maxim, *Gura Baciului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1995); Gh. Lazarovici, "New Archaeological Data Referring to Tărtăria Tablets," *Documenta Praehistorica* 30 (2003); Gh. Lazarovici, "L'interpretazione dei simboli sacri nella preistoria europea," in C.-E. Ursu, A. Poruciuc, and C.-M. Lazarovici (eds.), *From Symbols to Signs* (Suceava: Editura Karl A. Romstorfer, 2015), 34; Gh. Lazarovici, F. Drașovean, and Z. Maxim, *Parţa: Monografie arheologică* (Timișoara: Editura Mirton, 2001).

- Cross and combinations
- P shaped
- Circle, dot
- Semicircle
- Spiral, curve, arch, meander, Z.

4.3. The Spiritual Beliefs Expressed by a Language of Signs and Symbols

According to the scholar, the "Danube writing" is mainly a sacred writing considering most of the objects on which these signs and symbols occur are related to religious rituals.[185] Information on these signs and symbols derived from his ordered tables indicates the existence of deities – mainly a Great Mother goddess - within a mythological realm structured around several primordial myths, including the origin of the world, the genesis of light, magical rituals intended to enhance fertility, and the relationship between human beings and divinity. Spiritual beliefs are thus reflected and expressed through a language of signs and symbols, in which messages are graphically conveyed.

This cultic mythology expressed through signs and symbols was centered on the Great Mother Goddess, portrayed as the protector of natural fertility. One composite sign indicating her presence is the rhombus combined with angular, open Vs.[186] The Great Mother also appears in the script through numerous protective attributes, ensuring the fertility of fields, the germination of cereals, the fecundity of animals, and the gestation of human beings. Such inscriptions first appeared at the end of the Early Neolithic in the Starčevo-Criş culture (phases IIIB–IVA), but it was in the Developed Neolithic (Vinča A–Polychromy–Karanovo II), particularly at Tărtăria, that they achieved their greatest semiotic efficiency

Typical signs and symbols on female idols representing the Great Mother Goddess are:

- the *Rhombus*, interpreted by Marija Gimbutas as a symbol of pregnancy and soil fertility; by Jean Chevalier and Alain Gheerbrant as the entrance to the womb of the world and the realm of chthonic forces; and by Henri Breuil as a vulvar

[185] Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008); Gh. Lazarovici, "Tărtăria Tablets: Fresh Evidence on an Archaeological Thriller," in L. Nikolova, M. Merlini, and A. Comşa (eds.), *Circumpontica in Prehistory* (Oxford: Archaeopress, 2009); V. Radu, "Symbolism and Ritual in Neolithic Southeastern Europe," *Archaeological Reports* 62 (2014), 162.

[186] See the rhombus in relation to the human body, Gh. Lazarovici, "New Information and the Role of the Tărtăria Discoveries," in J. Marler (ed.), *The Danube Script: Neo-Eneolithic Writing in Southeastern Europe* (Sebastopol: Institute of Archaeomythology, 2004), 97, annex I, table 3.

symbol, used since the Paleolithic to express the matrix of life. According to Lazarovici, the rhombus represents the union of two triangles (the upward-pointing triangle symbolizing the man, the downward-pointing triangle symbolizing the woman), thus signifying life, love, and continuity. The duplication of the rhombus suggests dynamism.

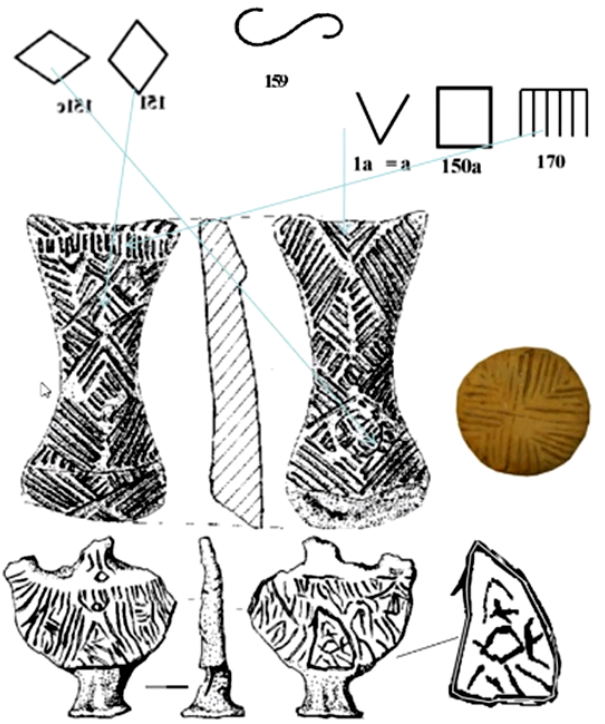

Fig. 6. Representations of the Great Mother Goddess on female idols.

- the *Spiral,* a dominant motif in the art of Old Europe. Gimbutas associated this sign with the snake, a symbol of rebirth and cyclical regeneration of nature, while Rvbakov linked it to the continuous movement of the sun and the passage of time.
- The *cartouches* found on the backs of some female figurines, these indicate the four cardinal directions and the four seasons.
- *Cartridges* and *pendants* are specific for female idols. They may represent insignia of the deity or perhaps denote the role of the respective artifacts in various ceremonial contexts.[187]

Signs were often employed to define or sacralize objects. For example, in the Early Neolithic Starčevo-Körös-Criş culture, the Great Mother was represented by figurines or pots with distinct, stylized features (e.g., hair, sexual attributes, steatopygia), which were sometimes inscribed by signs. To determine the relationship between the typology and usage of these objects and the type and placement of inscriptions, Lazarovici's database includes functional and typological notations. For instance, storage pots for seeds often contain signs

[187] Gh. Lazarovici and C.-M. Lazarovici, *Sacred Symbols and the Tărtăria Tablets: New Discoveries and Interpretations* (Cluj-Napoca: Editura Mega, 2023).

related to fertility and fecundity; vessels used for liquids may bear signs associated with ritual activities (e.g., the orant pose, dancer); while abstract signs or proto-writing elements (e.g., "V," "M," "W," and other core signs) are linked to the Great Mother, her attributes, and her characteristics.

These variables—features of the divinity expressed through symbols or written signs—transmit archetypal myths that may function as emblematic ideas, attributes, allegories, metaphors, parables, or apologues.[188] Consistently, Lazarovici defined Neolithic sacral writing as the "script of the archetypes" or, in Mircea Eliade's words, "the archetypal pattern of all creation," which makes it possible to uncover structures relating both to the real and the imaginary world.[189]

A parable or apologue is expressed on an anthropomorphic pot from Căscioarele, where a sculpted human face with horns frames a seated human figure.[190]

A mythogram presenting ideas through signs is incised on the earliest altar from Ocna Sibiului (Early Neolithic, seventh–sixth millennia BCE).[191] On this altar, an upward-pointing triangle and a downward-pointing triangle appear among other signs. Lazarovici interprets the ascending triangle—associated with the arrow, phallus, male principle, light, and flames—as representing the divinity of thunder, lightning, and rain, all understood as manifestations of fire.[192] In many representations, this masculine sign is opposed to the descending triangle, a feminine symbol. Their combination signifies union, mating, fecundation, pollination, and fertilization.[193] Notably, some graphically varied upward-pointing triangles represent the fecundated feminine womb (codes: 152d, 152g, 152f, 152a, 152h).

Light—essential for life, fertility, and fecundity—is symbolically expressed by signs on two altar tables from Gradešnica. The Sun and the Moon embody two

[188] Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 111.

[189] M. Eliade, quoted in J. Chevalier and A. Gheerbrant (eds.), *Dictionnaire des symboles*, vol. I (Paris: Robert Laffont/Jupiter, 1969), 27–28.

[190] V. Dumitrescu and Gh. Lazarovici, *Civilizația neolitică din România* (Bucharest: Editura Sport-Turism, 1990).

[191] I. Paul, *Die Tiszapolgár-Kultur in Rumänien* (Bucharest: Editura Academiei Române, 1991); I. Paul, *Das Frühneolithikum im Banat* (Bucharest: Editura Academiei Române, 1995).

[192] J. Chevalier and A. Gheerbrant (eds.), *A Dictionary of Symbols* (London: Penguin Books, 1996).

[193] Gh. Lazarovici, "L'interpretazione dei simboli sacri nella preistoria europea," in C.-E. Ursu, A. Poruciuc, and C.-M. Lazarovici (eds.), *From Symbols to Signs* (Suceava: Editura Karl A. Romstorfer, 2015), 32.

forms of light: the warm, daily light of the Sun as life light (altar a), and the cold, nocturnal light of the Moon as death light or dream light (altar b).[194]

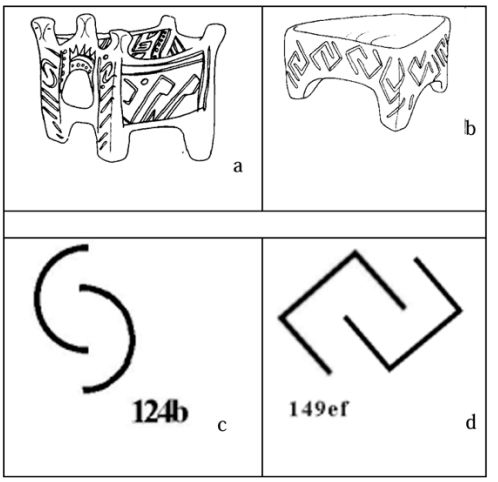

Fig. 7. Gradenica altars with Sun and Moon signs.

The religious stylized representations, spanning from the Upper Paleolithic to the Early and Developed Neolithic in South, East, and Central Europe, suggest the persistence of a shared, long-lasting mythological imagination and a consistent mode of expression.[195] In Lazarovici's view, these constitute the building blocks of a "sacral writing" that emerged fully in the Neolithic and underwent dynamic evolution. A number of these sacred signs endured into the historical period, even if their meanings shifted over time.

A particularly significant case study is Peștera Cizmei (The Boot Cave) in Ribișoara commune, Hunedoara County, where Gheorghe Lazarovici, together with Cristian Roman and Cornelia-Magda Lazarovici, discovered and mapped engraved signs associated both with Christianity and with prehistoric traditions, situating these marks within an ethnoreligious framework. In earlier studies, the team identified seven cave marks in the form of circles containing signs and symbols, which they interpreted as representations of the planets known in Antiquity. Certain arcs of these circles may reflect astronomical knowledge, possibly indicating orbits or related phenomena.[196]

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[194] Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 110.

[195] J. Chevalier and A. Gheerbrant (eds.), *A Dictionary of Symbols*, vol. I (London: Penguin Books, 1996), 17.

[196] Gh. Lazarovici and H. Pop, "New Research on the Tărtăria Tablets and Their Archaeological Context," in *Archaeological Contributions in Honour of Gheorghe Lazarovici* (Cluj-Napoca: Editura Mega, 2017), 76. Similarly, on a stone block at Gura Haitii in the Eastern Carpathian Mountains, engravings depict the Sun, the Earth with a solar eclipse, and seven additional circles, which the research team interpreted as representations of the planets (Gh. Lazarovici and H. Pop, "New Discoveries and Interpretations Regarding the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 15 (2016)). Astronomer Iharka Szücs-Csillik proposed that these circles might alternatively signify the Pleiades (M45), located in the northwestern region of the constellation

These circles appear within a Christian context, surrounded by numerous symbols and images. As the scholar notes: "The circle represents in most religions a fundamental symbol: the deity and its goodness, heaven, perfection, time, continuity, the harmony of time, and more. The center of the circle also has a wide symbolic meaning: moving away from the center divides and multiplies, all the rays coexist; the proximity to the center indicates intimacy, progressive harmony of the spirit, intimacy; the concentric circles: the stages of interior refinement".[197] In Christianity, these concepts are associated with light and life. Such circular signs, along with others of the same period (e.g., the X-shape and its variants, the + and its variants, the V-shape and its variants), are included in Lazarovici's database on the script, with attestations ranging from the Mesolithic to recent times. In conclusion, Peștera Cizmei is presented as part of a complex sacred landscape, where Christian engravings are integrated into a much older tradition of prehistoric rock symbolism.

4.4. Astro-Script: Lazarovici's Stellar Syntax

An innovative aspect of Gheorghe Lazarovici's later research—conducted in close collaboration with astronomers such as Iharka Szücs-Csillik (Astronomical Institute of the Romanian Academy; Astronomical Observatory, Cluj-Napoca)—was the identification of multiple graphemes as intentional cosmic symbols (the Sun, Moon, planets, individual stars, and star clusters), encoding sophisticated astronomical knowledge. By integrating archaeology, astronomy, and ethnology, Lazarovici and his team argued that these marks constituted pictograms and ideograms of a sacred, magic-religious proto-writing—a symbolic code designed to link Mother Earth with Father Sky.[198] To facilitate comparative study and scholarly dialogue, they published extensive repertories of these signs and the

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Taurus. This cluster is visible to the naked eye in the night sky and, in 2330 BCE, marked the vernal point. Another possibility is that the circles represent groups of bright stars from the Milky Way—a dense band of stars visible in the night sky, offering an internal view of our spiral galaxy (Szücs-Csillik, "Astronomical Orientation and Symbolism in the Vinča Culture," *Acta Terrae Septemcastrensis* 16 (2017)).

[197] Gh. Lazarovici, C.-M. Lazarovici, and C. Roman, *Turdaş and the Vinča Civilization: Chronology, Sacred Symbols and Archaeological Context* (Cluj-Napoca: Editura Mega, 2017), 333.

[198] I. Szücs-Csillik, Gh. Lazarovici, and Z. Maxim, "Astronomical Orientation of Neolithic Sanctuaries at Turdaş and Tărtăria," *Acta Terrae Septemcastrensis* 3 (2004); I. Szücs-Csillik, Gh. Lazarovici, and Z. Maxim, "Celestial Symbolism and Sacred Geography in the Vinča Culture," *Acta Terrae Septemcastrensis* 17 (2018); I. Szücs-Csillik and Z. Maxim, "New Archaeoastronomical Interpretations of Vinča Cultural Sites," *Acta Terrae Septemcastrensis* 22 (2023); I. Szücs-Csillik, Gh. Lazarovici, and Z. Maxim, "Sacred Landscapes and Celestial Symbolism in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 23 (2024).

objects on which they are inscribed in exhibition catalogues, edited volumes, and proceedings of dedicated symposia

This *astro-script* approach was particularly close to Lazarovici's heart in his final years and reflects his intellectual integrity. Consistently committed to scholarly rigor, he revisited and refined many of his earlier interpretations in light of this new perspective. In our long-standing collaboration, we jointly proposed that writing, in part, may have originated as a cosmic-symbolic system. At the same time, we clearly distinguished the technology of writing from what we define as "astronomical signs": namely, sky atlases, constellation figures, and markers of celestial motions—while still situating both within a unified semiotic landscape.[199] In his last years, Lazarovici tried—not always with satisfactory results—to cross the border by placing astronomical signs within the script framework.

Drawing on evidence from the remarkable central sanctuary he discovered at Parța (Banat district, western Romania),[200] the scholar underscored the importance of domestic and community shrines, whose architectural orientations and rich symbolic inventories provide crucial archaeo-astronomical data.[201]

Observing the regular cyclicality of the heavens, Neolithic communities of the Danube Valley embraced the dictum *"as above, so below"*, perceiving every terrestrial element as mirrored in the sky and vice versa. This macrocosm–

[199] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 170–171.

[200] Gh. Lazarovici, *Neoliticul Banatului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1982); Gh. Lazarovici, Z. Maxim, and F. Drașovean, "The Vinča Culture in Banat," *Acta Praehistorica et Archaeologica* 17 (1985); Gh. Lazarovici and Z. Maxim, *Gura Baciului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1995); Gh. Lazarovici, Z. Maxim, and F. Drașovean, *Parţa: Monografie arheologică* (Timișoara: Editura Mirton, 1994); Gh. Lazarovici, F. Drașovean, and Z. Maxim, *Parţa: Monografie arheologică* (Timișoara: Editura Mirton, 2001); Gh. Lazarovici et al., "New Discoveries Related to Vinča Culture Symbolism," *Acta Terrae Septemcastrensis* 2 (2002); C.-M. Lazarovici and Gh. Lazarovici, *Sacred Landscapes in Prehistoric Europe* (Cluj-Napoca: Editura Mega, 2006); I. Szücs-Csillik and Z. Maxim, "Archaeoastronomical Evidence from Vinča Sites," *Acta Terrae Septemcastrensis* 14 (2015); I. Szücs-Csillik and Z. Maxim, "Sacred Astronomy in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 16 (2017); Gh. Lazarovici and C.-M. Lazarovici, *Sacred Symbols and the Tărtăria Tablets* (Cluj-Napoca: Editura Mega, 2019); I. Szücs-Csillik, Z. Maxim, and Gh. Lazarovici, "Celestial Symbolism in the Vinča Culture," *Acta Terrae Septemcastrensis* 18 (2019); I. Szücs-Csillik, Z. Maxim, and Gh. Lazarovici, "Astronomical Orientation and Sacred Landscapes," *Acta Terrae Septemcastrensis* 19 (2020).

[201] I. Szücs-Csillik and Gh. Lazarovici, "Archaeoastronomy and Sacred Landscapes in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 22 (2023).

microcosm unity was expressed through signs and symbols that bound humans and their world into a single, living cosmos.[202]

Certain bright star-cluster configurations functioned as sacred symbols within the Danube System of Communication[203]—wheels, stars, crescents, and totemic animals—whose astral and calendrical meanings were accessible only to initiates.

The first "sky-watchers" were priest- or priestess-astronomers who interpreted the movements of the Sun, Moon, planets, and prominent star groups as divine messages governing rainfall, seasonal change, and agricultural rhythms.[204]

Regarding the calendrical role of these marks, Lazarovici and his collaborators interpreted a number of them on artefacts of the Danube Civilization as seasonal indicators, each associated with a particular star cluster. In their view, groups of

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[202] I. Szücs-Csillik, Gh. Lazarovici, and Z. Maxim, "Astronomical Orientation of Neolithic Sanctuaries at Turdaş and Tărtăria," *Acta Terrae Septemcastrensis* 3 (2004); I. Szücs-Csillik, "The Message of Some Ancient Astronomical Symbols from the Oldest Neolithic Vinča Civilization," *Romanian Astronomical Journal* 31, no. 2 (2021); I. Szücs-Csillik and Z. Maxim, "Archaeoastronomical Studies in Southeastern Europe," *Acta Terrae Septemcastrensis* 20 (2021).

[203] The Danube Civilization developed a complex and multifaceted system of communication—referred to as the Danube System of Communication—in which writing constituted merely one component, albeit an important, original, and distinctive one. Other integral channels included:

- Religious symbols, conveying sacred meanings through shared iconography
- Geometric decorations, encoding abstract concepts in patterned motifs
- Figurative language, expressed through images and pictorial narratives
- Memory-support devices, such as marked tokens used to aid recollection
- Star and land charts, mapping celestial cycles and territorial boundaries
- Ritualistic markings, inscribed or painted to denote ceremonial use
- Numeric notations, recording quantities or calendrical information
- Family or community affiliation marks, signaling lineage or social identity
- Production and marketing signs, indicating the owner, manufacturer, destination, or content of an artifact.

Collectively, these intertwined media formed a coherent semiotic network—the Danube System of Communication—through which Neolithic and Copper Age communities in the Danube Valley transmitted information, reinforced social cohesion, and mediated their relationship with both Earth and Sky. M. Merlini, *La scrittura è nata in Europa?* (Rome: Avverbi Editore, 2004); M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009).

[204] M. P. Nilsson, *Primitive Time-Reckoning: A Study in the Origins and First Development of the Art of Counting Time among the Primitive and Early Culture Peoples* (Lund: C. W. K. Gleerup, 1920); E. C. Krupp, *Echoes of the Ancient Skies: The Astronomy of Lost Civilizations* (New York: Harper & Row, 1983); D. H. Kelley and E. F. Milone, *Exploring Ancient Skies: An Encyclopedic Survey of Archaeoastronomy* (New York: Springer, 2011).

stars along the ecliptic signaled key transitions in the agrarian year, as their heliacal risings or settings coincided with the onset of each season.[205]

Neolithic lunar-solar calendars, based on systematic observations of the Sun, Moon, and principal stars, were indispensable for both agricultural planning and ceremonial scheduling.[206] With the advent of the First Temperate Neolithic and the spread of agriculture along the Danube, population clusters expanded into large settlements.[207] The annual cycle—ploughing, sowing, growth, protection, and harvest—assumed dual roles as both subsistence practice and sacred ritual.[208] Priest- or priestess-astronomers timed field operations by tracking sunrise and sunset, lunar phases, and stellar movements, believing that abundant harvests depended on aligning human activity with the divine orders inscribed in the sky.[209] Consequently, plant cultivation acquired a sacred cosmic dimension: soil fertility and crop success were understood as reflections of celestial harmony, governed by the "divine ordinances" written in the vault of heaven.[210]

Astronomical symbols occur repeatedly on cultic objects across the Danube Civilization. Lazarovici studied in depth the *Spondylus shell* from Mostonga (Serbia), the Tărtăria tablets (Romania), a ceremonial disc from Turdaş (Romania), spindle whorls from Slatino (Bulgaria), and an amphora fragment from Lozna (Romania).[211] These artefacts were likely employed in rituals linked to celestial events, reinforcing the bond between Earth and Sky, and between astronomy and spirituality. Their incised or painted patterns depict seasonal

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[205] Szücs-Csillik, "The Message of Some Ancient Astronomical Symbols from the Oldest Neolithic Vinča Civilization," *Romanian Astronomical Journal* 31, no. 2 (2021); I. Szücs-Csillik and Z. Maxim, "Archaeoastronomical Studies in Southeastern Europe," *Acta Terrae Septemcastrensis* 20 (2021).

[206] Z. Maxim and I. Szücs-Csillik, "Astronomical Orientation and Sacred Symbolism in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 8 (2009); Z. Maxim and I. Szücs-Csillik, "Celestial Symbolism in the Vinča Culture," *Acta Terrae Septemcastrensis* 9 (2010); I. Szücs-Csillik and A. Comşa, "Archaeoastronomical Interpretations of Neolithic Sanctuaries," *Acta Terrae Septemcastrensis* 16 (2017).

[207] I. Szücs-Csillik, Gh. Lazarovici, and Z. Maxim, "Sacred Landscapes and Celestial Symbolism in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 23 (2024).

[208] M. Bowden, *The Sacred Landscape of Ancient Astronomy* (Oxford: Oxbow Books, 2010).

[209] A. Barlai and I. Ecsedy, "Astronomical Symbolism in Prehistoric Europe," *Acta Archaeologica Academiae Scientiarum Hungaricae* 42 (1990); I. Szücs-Csillik, "Astronomical Symbolism in the Vinča Civilization," *Romanian Astronomical Journal* 31, no. 2 (2021).

[210] E. C. Krupp, *Beyond the Blue Horizon: Myths and Legends of the Sun, Moon, Stars, and Planets* (New York: HarperCollins, 1991); I. Szücs-Csillik and Z. Maxim, "Sacred Astronomy and Symbolism in Neolithic Europe," *Acta Terrae Septemcastrensis* 13 (2014).

[211] I. Szücs-Csillik, "The Message of Some Ancient Astronomical Symbols from the Oldest Neolithic Vinča Civilization," *Romanian Astronomical Journal* 31, no. 2 (2021).

star-group motifs, effectively framing the agricultural year from the vernal equinox to the autumnal equinox.[212]

Lazarovici further proposed that such astral engravings contributed to the emergence of an early proto-script, in which abbreviated signs—originally silhouettes of star clusters—evolved into a script code imbued with symbolic meaning, intended to bridge the human and cosmic realms.[213] A notable case study of his astro-mythological approach to sacred script is his in-depth analysis of the "M" and "W" signs, which he often interpreted as representations of the constellation *Cassiopeia*. In the Danube Civilization, precise observations of bright star-cluster movements—including heliacal risings—were essential for timing agricultural and ritual activities. The distinctive configuration of *Cassiopeia*'s five bright stars appears as an "M" for approximately six months, then, through diurnal rotation, as a "W" for the following six months.[214]

Lazarovici associated the "M" form with solar and masculine symbolism, and the "W" form with lunar and feminine connotations.[215] Moreover, Cassiopeia's position along the Milky Way's central band—home to open clusters, luminous disc stars, and nebulae—further enhanced its mnemonic and symbolic utility.

Due to Earth's axial precession, the Neolithic North Pole was aligned with Thuban (α Draconis) rather than Polaris, altering *Cassiopeia*'s apparent position in the sky relative to today. Iharka Szücs-Csillik charted *Cassiopeia*'s annual motion circa 4000 BCE, noting that it was not circumpolar at mid-northern latitudes as it is now: it rose and set nightly, and its form varied both diurnally and seasonally.[216] *Cassiopeia* cycled through four primary shapes—"M," "W,"

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[212] A. Barlai, "Astronomical Orientations in Prehistoric Europe," *Acta Archaeologica Academiae Scientiarum Hungaricae* 61 (2010); Y. Rotblum, *Astronomy and Symbolism in Ancient Civilizations* (Cambridge: Cambridge University Press, 2019); I. Szücs-Csillik, Z. Maxim, and Gh. Lazarovici, "Celestial Symbolism in the Vinča Culture," *Acta Terrae Septemcastrensis* 18 (2019); I. Szücs-Csillik, "Astronomical Symbolism in the Vinča Civilization," *Romanian Astronomical Journal* 31, no. 2 (2021).

[213] I. Szücs-Csillik, Gh. Lazarovici, and Z. Maxim, "Celestial Symbolism and Sacred Geography in the Vinča Culture," *Acta Terrae Septemcastrensis* 17 (2018); I. Szücs-Csillik, Z. Maxim, and Gh. Lazarovici, "Celestial Symbolism in the Vinča Culture," *Acta Terrae Septemcastrensis* 18 (2019); I. Szücs-Csillik, Z. Maxim, and Gh. Lazarovici, "Astronomical Orientation and Sacred Landscapes," *Acta Terrae Septemcastrensis* 19 (2020).

[214] Gh. Lazarovici, "Sacred Symbols in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 2 (2002); I. Szücs-Csillik and Gh. Lazarovici, "Archaeoastronomy and Sacred Landscapes in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 22 (2023).

[215] Gh. Lazarovici, "Sacred Symbols in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 2 (2002).

[216] I. Szücs-Csillik et al., "Celestial Symbolism and Sacred Landscapes in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 22 (2023), 39; I. Szücs-Csillik and Gh. Lazarovici, "Archaeoastronomy and Sacred Landscapes in Neolithic Southeastern

"∑," and Ƹ—as it rose, culminated, and set over one night and as Earth revolved around the Sun over a year.[217] In essence, the "M" gradually transformed into a "W" over intervals of roughly six hours or six months. These dual shapes served as key seasonal markers—solstices and equinoxes—for Neolithic sky-watchers.[218]

In 4500 BCE, at midnight around the spring equinox (c. April 25), the Sun lay between *Gemini* and *Taurus*, and the *Milky Way* stretched from *Sagittarius* to *Cassiopeia*, which rose over the horizon and appeared at sunrise in its "W" form. During the spring months, *Cassiopeia* never appeared in its "M" orientation; instead, it rose and set as a "W", a configuration visible throughout the first half of the year.

At summer solstice (c. July 30), with the Sun in *Virgo*, *Cassiopeia* shifted from invisibility to its "M" form, observable through the year's second half.

The "W" form reappeared from October, marking the onset of the cold season. Around the fall equinox (c. October 25), when the Sun crossed between *Sagittarius* and *Scorpius* and the *Milky Way* arched from *Auriga* to *Cygnus*, *Cassiopeia* formed a ∑ at sunset, cycling through all four shapes during this period.

At the winter solstice (c. January 30), with the Sun in *Pisces*, both "M" and "W" forms of *Cassiopeia* were visible throughout the night. Its "W" at sunset heralded the cold season.[219]

Cassiopeia's unique location, systematic positional changes, and regular alternation of easily recognizable shapes made it a cornerstone of the Neolithic agrarian calendar.[220] From these astronomical observations, Lazarovici explored *Cassiopeia*'s symbolic and mythological roles in Neolithic and Copper Age spiritual iconography, linking astral symbolism and early Danubian proto-script signs with later cosmic mythologies. He thus suggested a continuity of cosmic imagery from Neolithic cult objects to classical star lore.

The cosmologically "M" and "W" motifs are found—often inclined, single or doubled—across numerous Neolithic and Copper Age religious objects in

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Europe," *Acta Terrae Septemcastrensis* 22 (2023); I. Szücs-Csillik and Gh. Lazarovici, "Sacred Landscapes and Celestial Symbolism in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 23 (2023).

[217] I. Szücs-Csillik and Gh. Lazarovici, "Archaeoastronomy and Sacred Landscapes in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 22 (2023).

[218] I. Szücs-Csillik and Gh. Lazarovici, "Archaeoastronomy and Sacred Landscapes in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 22 (2023).

[219] I. Szücs-Csillik and Z. Maxim, "Archaeoastronomical Studies in Southeastern Europe," *Acta Terrae Septemcastrensis* 20 (2021); I. Szücs-Csillik and Gh. Lazarovici, "Archaeoastronomy and Sacred Landscapes in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 22 (2023).

[220] I. Szücs-Csillik and Gh. Lazarovici, "Archaeoastronomy and Sacred Landscapes in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 22 (2023).

southeastern and central Europe: on cult vessels,[221] ritual tattoo tools,[222] blessed loaves,[223] garments, figurines,[224] and the walls and doors of sanctuaries.[225] Frequently positioned atop libation-vessel lids,[226] around vessel rims,[227] framing human-headed pots, [228] or on vessel bodies,[229] the "M" and/or "W" forms conveyed esoteric messages accessible only to initiates.[230]

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[221] Gh. Lazarovici and Z. Maxim, *Gura Baciului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1995), fig. 249.2.

[222] Gh. Lazarovici, *Neoliticul Banatului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1979), pl. IV/G8, fig. 3.

[223] Gh. Lazarovici, "Sacred Symbols in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 2 (2002).

[224] Gh. Lazarovici and Z. Maxim, *Gura Baciului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1995), fig. 297.7.

[225] Gh. Lazarovici and Z. Maxim, *Gura Baciului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1995); M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 603.

[226] Gh. Lazarovici, F. Drașovean, and Z. Maxim, *Parţa: Monografie arheologică* (Timișoara: Editura Mirton, 1995), fig. 249.1.

[227] Gh. Lazarovici, "Sacred Symbols in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 2 (2002), fig. 9.

[228] Gh. Lazarovici, F. Drașovean, and Z. Maxim, *Parţa: Monografie arheologică* (Timișoara: Editura Mirton, 1995), fig. 294.3–5, 9.

[229] Gh. Lazarovici and Z. Maxim, *Gura Baciului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1995), fig. 249.10; Gh. Lazarovici, *Neoliticul Banatului* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1982); Gh. Lazarovici, "Sacred Symbols and Archaeological Contexts," *Acta Terrae Septemcastrensis* 1 (2000); Gh. Lazarovici, "Symbolism in Vinča Culture," *Acta Terrae Septemcastrensis* 1 (2000); Gh. Lazarovici, "New Archaeological Data Referring to Tărtăria Tablets," *Documenta Praehistorica* 30 (2003); Gh. Lazarovici et al., "Sacred Symbols in Vinča Culture," *Acta Terrae Septemcastrensis* 2 (2002); I. Szücs-Csillik and Gh. Lazarovici, "Archaeoastronomy and Sacred Landscapes in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 22 (2023). For example, a bird-decorated vessel from Parța features a repeating chain of M and W shapes encircling the body of the vessel. These motifs join and intertwine in a rhythm evocative of the natural cycles—just as day interlaces with night, and the months and seasons of the year recur. At the tips of the principal M-shaped symbol are two stylized birds, positioned as if marking the crest of the cycle's turning point. See: Gh. Lazarovici, "Sacred Symbols in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 2 (2002).

[230] M. Gimbutas, *The Gods and Goddesses of Old Europe, 7000–3500 BC: Myths, Legends and Cult Images* (London: Thames and Hudson, 1974; revised ed. 1982); M. Gimbutas, *The Language of the Goddess* (San Francisco: Harper & Row, 1989); C.-M. Lazarovici, "Sacred Symbols and the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 3 (2003); C.-M. Lazarovici, "New Interpretations of Vinča Symbolism," *Acta Terrae Septemcastrensis* 4 (2005); C.-M. Lazarovici, "Symbolism and Sacred Landscapes in Neolithic Southeastern Europe," *Acta Terrae Septemcastrensis* 7 (2008); Z. Maxim, J.

Unfortunately, the signs rooted in astral symbolism are notably underrepresented in Lazarovici's inventory. Although in the final period of his life he began to trace various signs and symbols back to an astral matrix, he did not have the opportunity to revise his inventory in light of this conceptual innovation. As evidenced in Appendix 1 of this article, where I reconstruct Lazarovici's final Inventory of Signs and Symbols, the astronomical signs—despite being categorized under Sun, Moon; Time and Seasons; Stars and Constellations; and Cosmic Cycles—remain significantly underrepresented, particularly those rooted in the forms of constellations.

4.5 Cycle of Life of the Script: Birth, Flourish, Decline

According to Lazarovici, the emergence of signs in the Early Neolithic cultural systems of southeastern Europe was not merely a local achievement. Their evolution was dynamic and closely related to those of the central Mediterranean and beyond. While the societies of southeastern Europe were highly interconnected throughout the Neolithic, the initial impetus came from Anatolia, suggesting the existence of a common matrix.[231]

Gheorghe Lazarovici defined as the "Vinča C shock" (4900-4600)[232] a phenomenon of rapid and dynamic transformations in the Carpathian-Balkan area in the Late Neolithic. This was the moment of the fullest development of the "Danubian Script" in Serbia, Banat, Transylvania, Oltenia, and northwestern Bulgaria (the Gradešnica group).[233] During this period, approximately 75% of the corpus of signs was in use.[234] The most frequently employed signs are presented in the following table.

Marler, and V. Crişan (eds.), *The Danube Script in Light of the Turdaş and Tărtăria Discoveries* (Cluj-Napoca: The National History Museum of Transylvania and the Institute of Archaeomythology, 2009).

[231] Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 111.

[232] M. Merlini, *An Inquiry into the Danube Script* (Alba Iulia: Editura Altip, 2009), 468.

[233] Gh. Lazarovici, "Symbolism and Sacred Structures in Neolithic Southeastern Europe," *Acta Praehistorica et Archaeologica* 19 (1987), 37–38; Gh. Lazarovici, *The Vinča Culture in Romania* (Cluj-Napoca: Bibliotheca Musei Napocensis, 1991), 17–18; Gh. Lazarovici, "Sacred Symbols and Archaeological Contexts," *Acta Terrae Septemcastrensis* 1 (1994), 62–100; M. Merlini, "Milady Tărtăria and the Riddle of Dating Tărtăria Tablets," Prehistory Knowledge Project, Rome, 2005, 57–76; M. Merlini, "Tărtăria Tablets: Fresh Evidence on an Archaeological Thriller," in L. Nikolova, M. Merlini, and A. Comşa (eds.), *Circumpontica in Prehistory* (Oxford: Archaeopress, 2009), 21–40; D. Tecar, "Symbolism and Sacred Objects in Neolithic Europe," *Acta Terrae Septemcastrensis* 13 (2014), 58.

[234] Gh. Lazarovici, "Settling Discovery Circumstances, Dating and Utilization of the Tărtăria Tablets," *Acta Terrae Septemcastrensis* 7 (2008), 110.

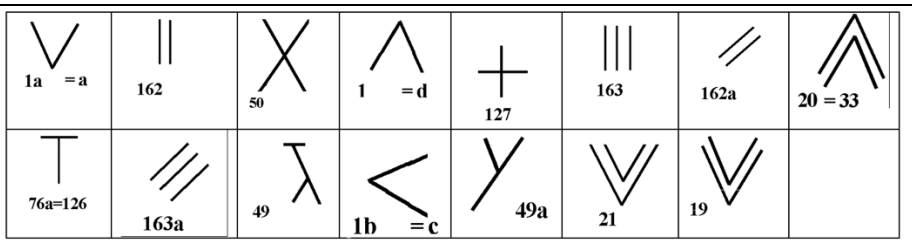

Fig. 8. Core signs of the Danube Script.

Lazarovici's database records the types and frequency of inscribed objects found in different prehistoric periods. Monumental altars in community sanctuaries, as well as small household altar tables, are the objects bearing the highest number of signs. Their inscriptions appeared at the beginning of the Early Neolithic, when they also reached their peak. They lasted in the course of the Neolithic, declined during the Early Copper Age, and then disappeared. The tradition of inscribing cult tables with sacred signs has its roots in the Starčevo–Criş culture. Key early sites of the script on altars include Karanovo (Bulgaria), Ocna Sibiului (Romania), Gradešnica (Bulgaria), and Vršnik (North Macedonia). This wide geographical distribution of the earliest inscriptions on cult tables demonstrates both the depth and pervasiveness of this ritual practice.

Altars are inscribed mainly with symbols expressing female sexuality. The most recurrent motif, concentrated in the Early Neolithic, belongs to the class identified by Lazarovici as *Eyes / eyes of divinity:* . Other frequent symbols include those representing the female sex such as (mainly in the Early Neolithic) and (mainly in the Late Neolithic), as well as signs expressing duplicity such as , (both recurring from the Early through the Middle Neolithic), and (concentrated in the Late Neolithic). During the Vinča B phases, associations of V-shaped motifs occur in antagonistic , coupled , in dynamic arrangements . The repeatable sequences of signs symbolizes the pouring and burning of liquids (oils).[235]

In his later years, Lazarovici concentrated on Early Neolithic signs and symbols associated with light, fire, and heat.[236] An invocation is suggested by the sign as by the signs of the Orant: and .

Tablets (including cult discs and shallow vessels) form the second category of inscribed objects. They constitute a class of artefacts specifically used to encode messages with sacral signs. Inscribed tablets first appear at the end of the Early

[235] Gh. Lazarovici and C.-M. Lazarovici, *Sacred Symbols and the Tărtăria Tablets: New Interpretations* (Cluj-Napoca: Editura Mega, 2022).

[236] Gh. Lazarovici and C.-M. Lazarovici, *Sacred Symbols and the Tărtăria Tablets: New Interpretations* (Cluj-Napoca: Editura Mega, 2022).

Neolithic, within the Starčevo–Criş culture (phases IIIB-IVA). Their diffusion reached its peak during the Developed Neolithic (Vinča A–Polychromy–Karanovo II). The most common signs on the tablets (in decreasing order of frequency) are:  (mainly in the Late Neolithic),  ,  ,  ,  , and  .
Spindle whorls and loom weights form the third category of inscribed objects. They are concentrated in the Late Neolithic, but also occur in the Middle Neolithic. These artefacts are often inscribed with signs related to fertility and fecundity. Most are associated with the feminine, such as the vulva motif:  (the most frequent sign, concentrated in the Late Neolithic), alongside with  .,  ,  , and  (the latter three signs are especially common in the Late Neolithic).