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Old lapidarium in The Cluj University building, MEM-MDK Photo Library Budapest

MOVABLE AND IMMOVABLE HERITAGE

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THE CLAY BAKING BELL AND PORTABLE PLATTER IN AN ÁRPÁD-PERIOD CONTEXT FROM PECICA (ARAD COUNTY)

To Professor Ioan Stanciu, on his 65th anniversary

FLORIN MĂRGINEAN*

Abstract: One can describe the Árpád-period rural settlement in the present-day surroundings of Pecica (Arad County) as modest and consistent with known regional patterns, particularly when compared to the neighboring region. This situation was largely due to the area's relative distance from centers of administrative or ecclesiastical power. The few settlements, and later villages, mentioned in historical documents did not go beyond the classical stage of rural development characteristic of that time, becoming notable only later through the presence of tithe-paying priests.

Nevertheless, recent archaeological research has brought to light parts of settlements belonging to pottery craftsmen. Several sites in the vicinity of the current town have already been mapped and documented, revealing the existence of a significant pottery production center during that period. In this case, our focus will be on discoveries from one such settlement, where an entire context was preserved, including a large portion of a portable clay platter and a clay baking bell, alongside other vessels and tools typical of the Árpád period. Beyond the rarity of such finds in settlements from this era, their practical function also remains a subject of discussion.

Keywords: settlement, portable platter, baking bell, Árpád period, Lower Mures Basin

Rezumat: Locuirea rurală în vremea dinastiei Arpadiene din actuala zonă a orașului Pecica putem spune că a fost una modestă, care nu a ieșit din tiparele cunoscute, comparativ cu regiunile învecinate. Acest lucru s-a datorat faptului că zona s-a aflat la oarecare distanță de centre de putere administrativă sau ecleziastică. Cele câteva așezări și apoi sate menționate în documente nu au depășit stadiul clasic al ruralității din acea vreme, remarcându-se ceva mai târziu doar prin preoții plătitori de dijmă.

Cu toate acestea, cercetările arheologice din ultimii ani au scos la lumină părți din așezări ale unor meșteri olari. Au fost deja cartate și documentate în jurul actualului oraș mai mai multe puncte, care ne oferă imaginea unui important centru de olărie din vremea respectivă. În cazul de față ne vom opri atenția doar asupra unor descoperiri dintr-o astfel de așezare, un întreg context în care s-a păstrat o mare parte dintr-un platou portabil și un țest, alături de alte vase și ustensile tipice perioadei arpadiene. Pe lângă raritatea unor astfel de descoperiri în așezările perioadei, rămâne de discutat și utilitatea lor.

Cuvinte cheie: așezare, platou portabil, țest, perioada arpadiană, Bazinul Mureșului Inferior

Recent archaeological discoveries – primarily the result of infrastructure or public works projects – have enriched our understanding of daily life and, by extension, the material culture of the Árpád dynasty period. In this article, we aim to present specific data

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that we hope will contribute to both the corpus of high medieval discoveries in the Lower Mureș Basin and to a broader understanding of material culture during this time.

Regarding the current state of knowledge on the Árpád period, the situation is somewhat more favorable, as sites datable to this era have been under scholarly consideration since the nineteenth century. Unfortunately, even in this case, scholarly attention was primarily focused on sites representative of the secular or ecclesiastical administration of the Árpád Kingdom, while rural settlements entered academic discourse only relatively late.[1] The dissemination and publication of findings remained highly limited until the end of the twentieth century, which makes meaningful comparisons with neighboring historiographies virtually impossible.

The causes for this gap are manifold, but the impact of the communist regime on historical scholarship – particularly its influence on the interpretation of archaeological discoveries related to the end of the first millennium and the period immediately following the year 1000 – has had long-lasting adverse effects, some of which are still evident today.[2] In this context, we argue that only through the systematic publication of both older and more recent findings can we reach well-founded syntheses that will help bridge this historiographical gap.

Preventive archaeological investigations carried out over the past decade in the Lower Mureș Basin – primarily in the context of road and public infrastructure projects – have led to a series of discoveries datable to the early and high medieval periods. The recent excavations have revealed parts of settlements, including sunken dwellings, household annexes, pottery workshops,[3] and other structures, as well as sections of cemeteries[4] and isolated graves.[5] These findings significantly contribute to the growing corpus of archaeological evidence related to the period around the year 1000.

Research history

In the context of discoveries from this microregion of the Lower Mureş, we aim to provide a brief overview of the archaeological record dated between the eleventh and the thirteenth centuries. In 2011, to the east of Pecica, along the planned route of the Arad–Pecica–Nădlac motorway, several areas with Árpád-period discoveries were investigated in greater detail. The area in question had been known in the scholarly literature since the 1980s as an archaeologically promising zone, with previously identified and partially investigated sites, such as the one at Pecica *Forgaci*.[6] While research had mainly focused on prehistoric features, some high medieval finds – particularly from the Árpád period – had also been noted.

However, nothing foreshadowed the scale of the habitation traces from the Early and High Middle Ages uncovered during rescue archaeological excavations in 2011 as part of the construction of the Pan-European Corridor IV motorway. In this regard, the

[1] Popa 1979, 555–562; Țeicu 1996; Iambor 2005; Crișan 2006.
[2] Popa 1991.
[3] Mărginean 2016, 112–115, Fig. 8.
[4] Mărginean, Huszarik 2007, 17–38; Gáll 2013; Gáll 2017.
[5] Mărginean, Andreica 2013, 321–338.
[6] Luca 1993, 49–84, Plan 1.

discoveries from Sites 16 (PEC003) and 15 (PEC007) along the Pecica–Arad motorway are of particular importance and warrant some detailing within the context of our study.[7] The correlation of data from these sites provides substantial clarification of habitation from the eleventh to the thirteenth centuries.

Shortly after these discoveries, new investment projects in the immediate vicinity prompted further rescue archaeological investigations. Thus, in 2015, traces of Árpád-period habitation were also uncovered at the Pecica *Smart-Diesel* site. Although these finds were not spectacular, they should be interpreted in the context of the previously mentioned discoveries.[8] Three years later, in 2018, preventive excavations at Pecica *Duvenbeck* revealed additional contexts assignable to the same chronological horizon[9].

All these findings confirm the existence of a center of pottery production in the area of present-day Pecica, which, we can now confidently assert, served the broader Lower Mureș region (Pl. I/1). In 2019, at the site conventionally named *Forgaci-Lucas* – after the developer – located in the *Forgaci* area, archaeologists documented a large portion of a potters' settlement.[10] This site surpasses all previously known data concerning ceramic craftsmanship in the region in terms of amplitude and relevance.[11]

This study will focus exclusively on two discoveries from Site 16, located east of Pecica (Pl. I/1). Following a preliminary field survey, the archaeological site known as Site 16 was identified and delineated. Test trenches revealed a cultural layer from which several diagnostic pottery fragments – such as rim shards and cauldron pieces broadly datable from the eleventh to the thirteenth centuries – were recovered. As will be demonstrated through comparative analysis, we can likely narrow the site's chronology to the final phase of this time interval.

The cultural layer was significantly disturbed by modern ploughing, which complicated the precise delineation of archaeological features – particularly as very few extended into the sterile yellow soil layer. Except for the four features attributed to prehistoric periods and located in the northwestern extremity of the site, all other features belong to phases of habitation from the Árpád period.

Our discoveries showcase rural habitation structures and associated household features, containing generally modest material remains, the most representative of which are ceramic fragments. Despite this, the 25 features uncovered preserved enough material evidence to allow for the identification of the character and approximate chronology of this small settlement (Pl. II/2).[12] In conjunction with the previously discussed data, this was likely a small settlement whose primary economic activity was pottery production.[13]

[7] All archaeological sites within the administrative territory of the town of Pecica (UAT Oraș Pecica) were assigned a "PEC" code followed by an ascending numerical identifier, as part of the Historical Substantiation Study for the Delimitation of Archaeological Sites and Their Protection Zones, conducted for the 2013 General Urban Plan (PUG). Accordingly, Site S16, located east of Pecica and excavated by our team in 2011, was designated as PEC003.

[8] Mărginean 2017, 153–156.

[9] Ursuțiu et alii 2018.

[10] Ursuțiu et alii 2019.

[11] Mărginean 2021.

[12] Mărginean, Sava 2022.

[13] Marginean 2021, 247–249.

However, since such craft production implies a broader spectrum of daily activities, some of the finds are also of particular interest for understanding the domestic life of the community that once lived here.

Location and geographical context

The discoveries presented in the following were made 2.5 km east of the town of Pecica (Románpécska, Pécska, Ópécska, Petska in Hungarian), near the eastern on- and off-ramp of the Nădlac–Arad motorway, on a terrace situated on the right bank of the Mureș River (Pl. II).

In terms of local geography, the shifting course of the Mureș River has driven the most significant long-term transformations through its continuously changing trajectory, resulting from natural processes and anthropogenic interventions. This is evidenced by the presence of secondary channels that are still visible in the landscape today. Both historical Habsburg military maps and modern satellite imagery depict the site as located on a flood-protected terrace, adjacent to a meander branching from a secondary channel still known today as the Forgaci Valley (*Forgács*). This channel itself branches southward from another active secondary course of the Mureș known as the Dead Mureș (*Holt Maros*), which rejoins the main riverbed near the town of Pecica (Pl. I/2).

With average elevations ranging between 100 and 115 meters, the relief of the area where these discoveries were made is a low, tabular alluvial-piedmont plain. It consists of Mureș River alluvial fans extending northwestward (toward the Criș region), but the area has undergone subsidence until relatively recent times. Although part of a lowland plain, the region is relatively diverse both in terms of topography and surface deposits (recent and older alluvia, loess-like sediments, sands, and clayey silts).

The lower levels are composed of very wide, meandering former riverbeds of past Mureș branches that once flowed either toward the White Criș (*Crișul Alb*) or toward the current Ier River—formerly known as the Dry Ier (*Ieruga seacă*), which continues into Hungary as the *Száraz Ér*. Among these former branches, the *Valea Seacă* (*Matca Canal*), the *Ier*, and another channel to the northwest are still well preserved. The low-lying areas are somewhat marshy and were historically prone to flooding during the Mureș River's periodic overflows. The higher terrain, including the natural elevations (*grădiști*) between the meanders, is covered with loess-like sediments, up to two meters thick.[14]

Based on current data, the discoveries at Site 16/ PEC003 (2011) appear to be closely related to finds from nearby sites, such as Site 15/ PEC007 (2011), *Smart-Diesel*/ PEC011 (2015, 2017), *Duvenbeck*/ PEC010 (2018), and *Forgaci-Lucas*/ PEC012 (2019) (Pl. I/2).

Their close association can be explained by both on-site field analysis and broader climatic conditions, particularly the prolonged arid phase documented throughout the Carpathian Basin between approximately 800 and 1200 CE.[15] One can also infer a broader view of the territory between the Tisa, Mureș, and Criș rivers toward the end of the Árpád period from the writings of Canon Rogerius, who traveled through this region during the Mongol invasion. In addition to his descriptions of the heavily forested, thorny landscape,

[14] Posea 1997; Rusu 2007, 41.

[15] Györffy, Zólyomi 1994, 17, 27–31, fig. 1–2, 4–5; Gyulai 1999, 84.

Rogerius also offers insights into the lifestyle of the local population,[16] who lived in sunken dwellings[17] and stored their food underground, most likely in what we now refer to as storage pits.[18]

Unquestionably, research and analyses using modern methodologies,[19] correlated with archaeological discoveries, could provide new insights into the evolution of the area surrounding the Mureș River.

Archaeological context of discoveries

The topography of the discoveries from Site 16 reflects the spatial organization of a small Árpád-period settlement in the Lower Mureș region. Most of the documented archaeological features formed a habitation core on a natural levee, bordered by a secondary meander of the Mureș River. In the central part of the excavated area, several features with identifiable functions were concentrated, including a pottery kiln with a working pit (Feature 15, hereafter Ftr), a possible annex related to it (Ftr 13), likely connected to this craft installation, as well as two sunken dwellings with hearths (Ftrs 2–26). Also worth mentioning is Ftr 25, where a complete small cauldron was preserved, possibly indicating a domestic annex.

Somewhat separated toward the edge of the levee stood another group of features. One (Ftr 21) stands out in particular, not necessarily for its form (a sunken-floored, trapezoidal pit with rounded corners and slightly sloping walls), but mainly for the distinctive material culture preserved *in situ*. Likely, the surrounding archaeological elements (mostly pits) are functionally linked to Ftr 21.

The artifact assemblage includes a portable clay platter and a clay baking bell**,** ceramic ware typical of the period, such as medium-sized pots and cauldrons, as well as a whetstone fragment. Viewed as a whole, these finds offer a glimpse into a modest way of life, a settlement dedicated primarily to pottery production.[20] In this study, we focus only on two artifacts retrieved from this context, noteworthy both for their rarity in Árpád-period settlements and for their potential utility: the baking bell and the platter.

Description of the clay baking bell

A large portion of a clay baking bell (seven fragments) with a handle was among the retrieved ceramic objects scattered around the clay platter. Considering its manufacturing technique, the firing was oxidizing, resulting in coarse walls. Both chaff – whose imprint remained visible after firing – and sand with large pebbles were used as temper. The coarse appearance was partially mitigated on the exterior by attempts to smooth the surface. The interior shows porosity, likely caused by shaping on a rough support and subsequent firing.

The diameter of the baking bell discovered in Ftr 21 was estimated, after reconstruction, to be approximately 48–50 cm. Its maximum height is 20 cm, making it relatively shallow,

[16] Rogerius 2006, 87, 89.

[17] Rogerius 2006, 85

[18] Rogerius 2006, 87.

[19] Kiss et allii 2008, 94–100; Urdea et alii 2012, 9–32.

[20] Regarding the topography of the discoveries related to the network of pottery workshops in the lower Mures basin and, especially, the Pecica area, see Mărginean 2021.

which suggests it was used for baking flatbread. Wall thickness varies between 3 and 4 cm. The handle thickness ranges from 6 cm at the grip to 10 cm near the base.

In the case of baking bells from the Avar period, the presence of plant impressions provides clues to their production, most likely in a domestic environment, as they were not fired in kilns but rather in pits or open hearths, sometimes suggesting they were fired only at first use.[21] Although rare among Árpád-period finds, the discovery of only fragments of clay baking bells is generally due to their fragility.[22] In this case, fortuitous environmental conditions allowed the preservation of large diagnostic fragments of a roughly made clay baking bell of local origin, in a context that significantly contributes to the previously documented data on this type of installation (Pl. VI/2).

Description of the clay platter

Although discovered in pieces, a significant portion of a massive yet coarse platter was preserved. It was made from clay mixed with chaff and fine pebbles. Most definitely, the platter was rectangular with rounded corners, measuring approximately 65 cm wide, with the most significant preserved part measuring about 30–40 cm in length. It was observed that along the longer sides, holes suggest the use of wooden rods to facilitate mobility. Most likely, the wooden rods were incorporated into the platter's structure during its modelling and subsequently fired in place. The diameter of the holes for fixing the rods ranges between 4 and 6 cm (Pl. IV/1).

On the rounded corners of the preserved portion of the platter, two round depressions were made in the raw clay, measuring 5–6 cm in diameter and 3–4 cm in depth. Due to the fragmentary state, we can only hypothesize the existence of similar depressions on the opposite side, which, unfortunately, are not preserved.

The thickness of the platter's walls ranges from 3–5 cm, at the rim, to 7–9 cm, near the base. The internal depth is relatively consistent at approximately 10 cm. Both the interior and exterior surfaces of the platter were more carefully finished, although traces of chaff and pebbles used as temper are still visible. It appears that from the outset, the entire structure was laid on a bed of chaff, which, after firing, remained impregnated at the bottom of the platter, leaving long imprints from grain stalks. Probably because of this, the bottom was given a slightly concave shape relative to the longer edges.

Based on the preserved fragments along one long side, and a fragment without holes which we assume belonged to one of the short sides (based on the same internal height of about 10 cm), we estimate the total length of the platter to be approximately 120–125 cm (Pl. V).

From the same context, several other fragments were also recovered, but unfortunately, could not be integrated into the platter's structure. Among these, nine distinct fragments stand out, possibly belonging to another platter or resulting from repairs, such as patching some segments along the edges of the main platter. These fragments bear traces of finishing on the exterior and semicircular impressions on the interior, which may indicate that they were either part of a separate platter or later additions.

[21] Herold 2004, 40; Bajkai 2015, 231; Stanciu 2016, 38.

[22] Vida 2011, 707.

It is also noteworthy that both the consistency and firing differ slightly from those of the platter described above. As temper, besides chaff, small pieces of calcareous concretions and ceramic fragments were used. The preserved fragments measure a total of 83 cm in length and exhibit a more pronounced rounding of the corners of this structure (Pl. VI/1).

Associated ceramic ware

To complete the assemblage, we note that several vessel types typical for the period and a whetstone were preserved in Ftr 21, whereas other installations, such as hearths or kilns, were not present within the complex. Without going into exhaustive detail, we have selected only a few vessels, all typical in form, technique, and dating to the Árpád period. Both the pots and the cauldrons were made on a slow wheel, from sand-tempered clay, and fired oxidatively. Similarly, a somewhat atypical vessel base with slightly inward-sloping walls was found, though missing the pot's upper part (Pl. VII/3). Both in form and technique, this piece closely resembles a vessel discovered at Site 4R (PEC001) in the northern territory of Pecica.[23]

Among the pots, medium-sized examples stand out, featuring simple flared rims, short necks, and prominent bellies, decorated just below the neck and toward the belly with punctures (so-called "nail" decoration) or parallel incisions. Additionally, some vessels bear distinct potter's marks, such as a disc from which radial lines emanate (Pl. VII/3).

The ubiquitous cauldrons complement the assemblage, as the characteristic vessels of the Lower Mureș region, found in all settlement types of the Árpád period. Although no certified finds are known from our immediate study area, the earliest cauldrons discovered in the Carpathian Basin date to the late seventh century and certainly the eighth century, and were handmade. Only after the tenth century did cauldrons begin to be produced on the slow wheel.[24] In this microregion, most cauldron finds date from the eleventh to the thirteenth centuries, and were turned on the slow wheel, although earlier or later datings cannot be excluded for some discoveries.[25]

In the analyzed context, alongside the classic truncated-conical form (represented not only by reconstructed parts but also by a complete cauldron typologically classified by Miklós Takács as IID1a-b[26]), a semispherical cauldron was also found (Pl. IV/2). This form belongs to the type that imitates metal cauldrons. While the truncated-conical form features internal handles for suspension, the semicircular cauldron has a simple rim with perforations directly through the wall thickness just below the rim, allowing it to be hung. Although typologically assignable to IID2b,[27] this shape is rare among finds of this kind east of the Tisza River.[28]

Although both cauldron types could have been suspended and theoretically used for cooking over fire, the absence of secondary burning traces suggests that some of these vessels were used only for food storage. Recent analyses, as well as ethnographic parallels,

[23] Mărginean 2021, 244–246, Pl. 8/1–2.
[24] Takács 2010, with many citings.
[25] Takács 2012, 47.
[26] Takács 2010, 142–144, Fig. 3–5.
[27] Takács 2010, 143–146, Fig. 3–4.
[28] Takács 2010, 148.

suggest that deeper vessels were used for cooking food that required longer preparation times, while shallower vessels were used for shorter cooking times.[29] Taken as a whole, the ceramic vessels discovered in Ftr 21 appear to have been used for both food preparation and storage.

Closing remarks on settlement dating and use of the finds

The archaeological topography of this microregion, still known as the Forgace Valley and already recorded on the Austrian military maps (Pl. I/2) north of the Mureș River, appears quite interesting concerning a specific sequence of rural habitation during the Árpád dynasty period. The favorable geographical setting, provided by proximity to the Mureș River, with ideal resources and raw materials, allowed the emergence of a true center of pottery craftsmanship in the area of the present-day town of Pecica.[30] Most likely, the extent of this center's development was also driven by the increased demand for everyday ceramic ware – especially cauldrons, but also pots. It is worth noting that this type of ceramic ware was uncovered in both administrative and ecclesiastical centers and in the simplest rural settlements of the Lower Mureș area during the eleventh to thirteenth centuries.

Pottery craftsmanship, alongside animal husbandry and agriculture, apparently constituted the main occupations of the communities inhabiting the small settlements located near villages. For the period under consideration and this particular microregion, the written record lists two villages: *Popi/Papi* and *Marian/Marjan*.[31] Both are thought to have been located near the Forgace Valley area, around which the aforementioned excavated archaeological settlements seem to have gravitated.[32]

Regarding the chronology of our discoveries and the absence of more precise dating evidence, while relying solely on analogies, we estimate that the excavated hamlets were active within a timeframe spanning the twelfth and, perhaps, the beginning of the thirteenth centuries. This corresponds to the middle and late phases of the Árpád dynasty, which can be identified as the period of greatest prosperity and demographic growth in the Lower Mureș region, within the already established medieval boundaries of Arad County. The vessel shapes recovered from this context, corroborated with the remaining discoveries from this site, have analogies in contemporary sites along the lower course of the Mureș River and allow for a relative dating within this period. In our case, the most relevant examples come from sites such as Vladimirescu (see below, note 48), Frumușeni, Bulci, Felnac, Cladova, Sîmbăteni, Șeitin, Pecica, and Nădlac (Arad County).[33]

To these, analogies from both the middle and lower courses of the Mureș River may be added. In the absence of radiocarbon (C14) dating, a helpful analogy is provided by the site of Tărtăria – *Site 9* (Alba County), where the dating of contexts containing similar ceramics could be narrowed to the late twelfth century based on a monetary find.[34]

[29] Takács 2022, 347.

[30] Mărginean 2021.

[31] Györffy 1963, 181; Blazovich 1996, 197–198; Forțiu 2018, 858.

[32] We will not dwell here on this aspect, which has been carefully and extensively addressed by Sorin Forțiu elsewhere, but which deserves to be approached under different circumstances, with written and cartographic sources more thoroughly cross-referenced with archaeological data and the realities observed in the field.

[33] Blăjan, Dörner 1978, 123–131.

[34] Craiovan et alii 2017, 219, Pl. III/7.

Additional ceramic analogies are known from Kiskundorozsma – *Daruhalom Dűlőben* (Csongrád County), discoveries attributed to a settlement dating to the twelfth and thirteenth centuries.[35]

As for the organization of the settlement, it appears relatively modest when compared to others previously mentioned; however, our focus here is limited to a category of artifacts that are interesting both for their rarity within the finds and for their functional significance.

According to Tivadar Vida's analysis, this type of baking method, using lidded pots, is linked to the Balkan world, the Southern Alps region, and the Italian Peninsula, later spreading to various peoples living in adjacent areas.[36] The emergence of clay baking vessels in late Avar settlements has been associated with the possible sedentarization of communities. Their domestic production and fragility were clear indicators of a sedentary lifestyle. These types of installations seem to have spread during the Avar period within the Carpathian Basin under Balkan-Byzantine influence.[37]

Until recently, the presence of this type of installation in settlements from the late first millennium and during the Árpád dynasty was considered a rarity. Over time, however, discoveries have multiplied, and the presence of clay baking bells no longer comes as a surprise even in rural settlements of the Árpád period.[38]

An interesting case regarding these installations has already been noted in the literature for a neighboring region, specifically Békés County (Hungary). The existence of clay baking bells has been documented since the Avar period, with their presence continuing in settlements from subsequent periods, namely the tenth and eleventh centuries.[39] The confirmed presence of clay baking bells in Árpád period settlements, as evidenced by both older and recent discoveries, is a clear indication of the survival of specific technological and culinary traditions into the twelfth and thirteenth centuries.[40] Several analogies of clay baking bells from the Árpád period have been reported in Békés County, including sites such as Orosháza – *Nyiri-dülö*, Orosháza – *Bőnum*, Kardoskút – *Hatablak*, Végegyháza – *Templomhalom* (*Zsibrik-domb*, medieval *Pereg*), Szarvas, Endrőd, and Békés – *Ditér*.[41] Perhaps the closest analogy to our situation, aside from the findings from complex 146 at Orosháza,[42] is the one from Végegyháza – *Templomhalom* (*Zsibrik-domb*, medieval *Pereg*), where a clay baking bell and parts of a tray are associated, both sharing the same formal traits as our discoveries.[43]

Although fewer in number, clay baking bells have also been confirmed in Avar-period settlements in the Lower Mureș region.[44] In our case, we can say that this type of installation was locally produced, probably due to its simplicity and, especially, its fragility. Ethnographic studies have attributed the production of these baking implements to poorer environments, as they were not intended for trade at either the microregional

[35] Benedek, Pópity 2010, 236–240.
[36] Vida 2011, 706.
[37] Vida 2011, 728, 735.
[38] Bálint 1991, 60; Fiedler 1994, 338; Vida 2016, 385–386.
[39] Szőke 1980, 188–189; Medgyesi 1995, 148.
[40] Takács 2022, 347.
[41] Rózsa 2016, 212, Fig. 1.
[42] Rózsa 2016, 211–219, Fig. 4–5.
[43] Rózsa 2016, 219, Fig. 6.
[44] Mărginean 2017, 150–151.

or long-distance scale.[45] The discoveries at Pecica–Site 16 provide evidence of the use of such clay baking bells even during the Árpád period. What is particularly interesting is their association with a portable tray, which enabled some domestic mobility around the household, probably justified by the settlement's temporary character.[46]

A distinct category of ceramic ware, notable primarily for their rarity in Árpád period discoveries, are these platters, also known in the literature as "trays," "portable hearths," "portable hearths with raised rims," and, more recently, as "clay platters." Predominantly found in early medieval settlements, these objects vary in size and shape but are generally considered, both morphologically and functionally, a single archaeological category.[47] We believe their denomination could depend on form, dimensions, and the discovery context, as is the case here. The chaff residues impregnated on the bottom of our platter prior to the in situ firing of this massive structure, the oxidizing firing (see Pl. V/2), and the context, all provide strong indications that it was not fixed above a kiln, as some items have been reported in the scholarly literature.[48] Considering these aspects, we have opted for the term "portable platter," reflecting its shape and dimensions, as well as the implied mobility suggested by the longitudinal holes intended for the attachment of wooden rods.

Regarding their functionality, depending on the discovery context, these platters have been assigned various uses, ranging from drying cereals or fruits to food storage, cooking meat, but, most frequently, the preparation and baking of bread, flatbreads, or other foods.[49] Although these installations have been primarily associated with early Slavic environments,[50] they are also attested in settlements dated between the eleventh and the thirteenth centuries, albeit with much lower frequency.[51]

As mentioned above in the case of the clay baking bell, the closest analogies come from finds documented in Békés County, such as those from Orosháza – *Bőnum* and Végegyháza – *Templomhalom* (*Zsibrik-domb*).[52] The fortunate discovery of large, reassemblable fragments of such a platter enabled us to reconstruct the entire object graphically. We can only speculate about the existence of the alveoli (whose utility is difficult to infer) located on the preserved short edge of the platter and, presumably, on the opposite one. Most likely, wooden poles were fixed there as protective elements for both the vessel and the food prepared or stored within it.

The dating to the Árpád period is beyond doubt for the two pieces discovered within the potters' settlement near Pecica. The closest parallels come from Orosháza, where the platter and baking bell fragments have been dated in the twelfth century based on their association with pottery types diagnostic of the period. In the absence of other artifacts with

[45] Vida 2011, 710; vida 2016, 368–370.

[46] Another clay baking bell from the Árpád period is noted here only briefly, discovered during the 2023 archaeological investigations at Vladimirescu (Arad County), site VLD012 (Ftr 177). Although it formally resembles those already reported here or in the literature, it differs in terms of its manufacturing finishes. We will return to this discovery, found among other artifacts including a fragment of a balance scale, in a separate study.

[47] Ghenescu 2002; Stanciu 2017.

[48] Stanciu 2017, 182.

[49] Vida 2016, 391–392; Stanciu 2017, 190–191.

[50] Rózsa 2016, 219.

[51] Ghenescu 2002, 80; Stanciu 2017, 191.

[52] Rózsa 2016, 217, Fig. 5; 219, Fig. 6/3.

narrower chronology or any available radiocarbon analysis, we consider a more cautious dating – based solely on the analogies mentioned – placing the pieces in the second half of the twelfth century and possibly the early thirteenth century.

Taken as a whole, the discoveries in Ftr 21 seem to indicate a space dedicated to food production at the level of a small community of potters from the twelfth and, probably, the beginning of the thirteenth centuries in the Lower Mureș region. In the settlement's topography, this archaeological feature is clearly distinct from the residential areas (two dugouts) and the pottery workshop (a pottery kiln and an annex) (see Pl. II/2). The diversity of vessels found here also suggests this: some show signs of secondary firing, indicating use in cooking over fire, while others lack such traces, suggesting use solely for food storage. While the dating appears relatively straightforward, it remains to be assessed whether the association between the portable platter and the clay baking bell relates to the production of flatbreads, possibly other foods, in this "mobile fashion."

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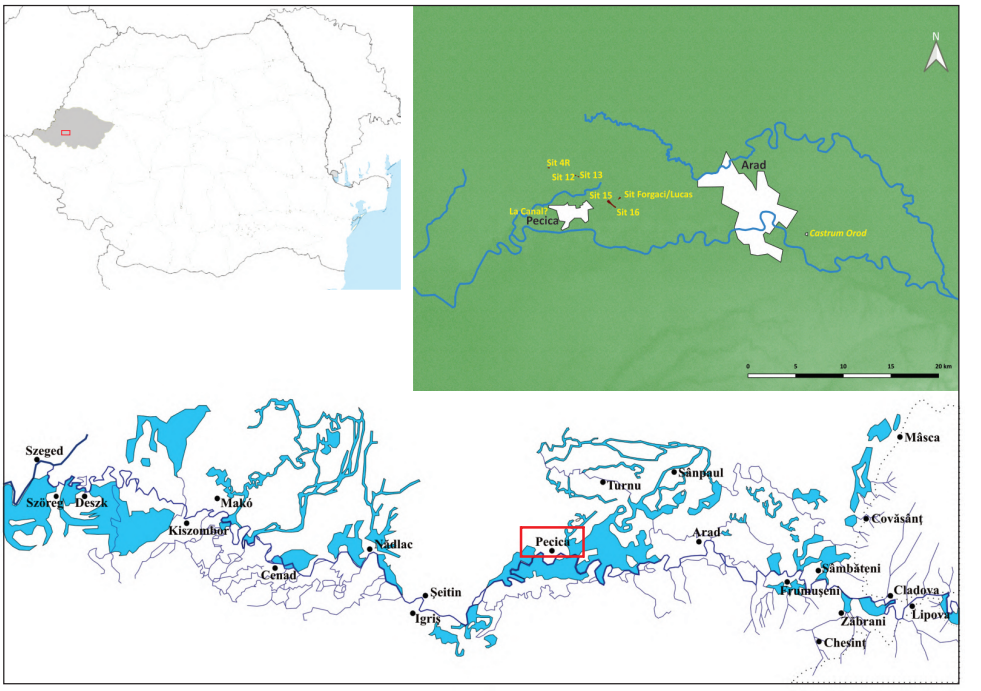
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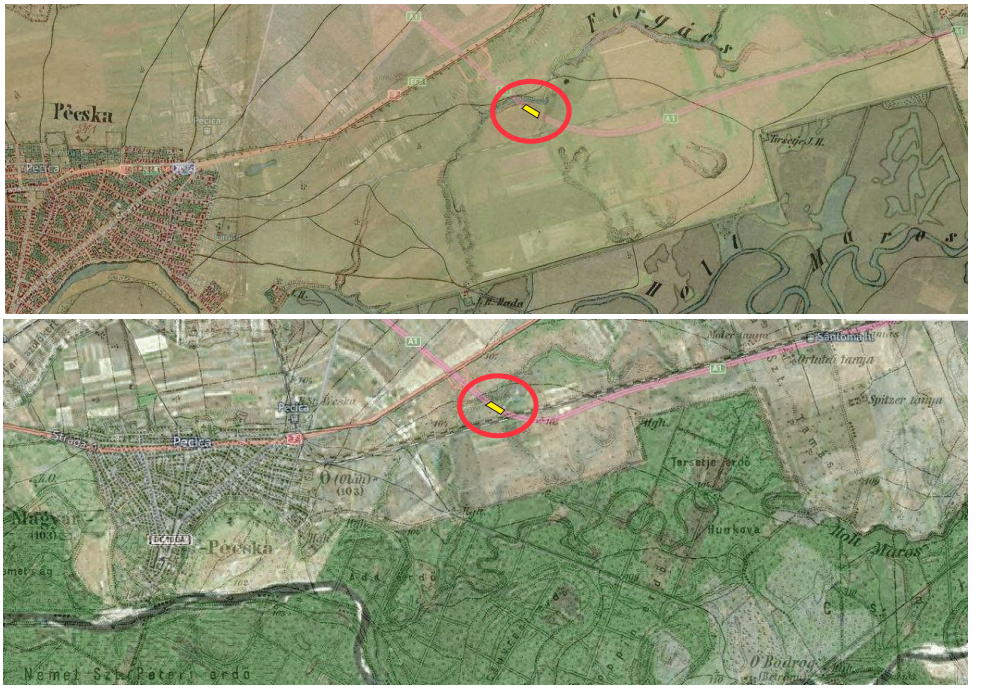
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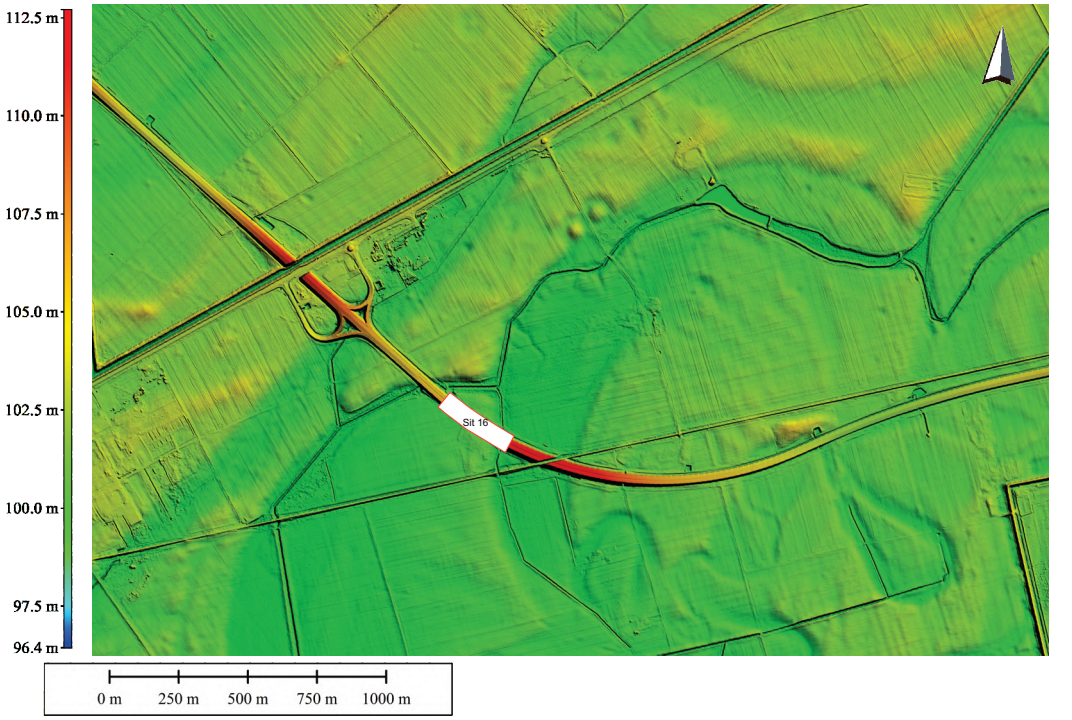


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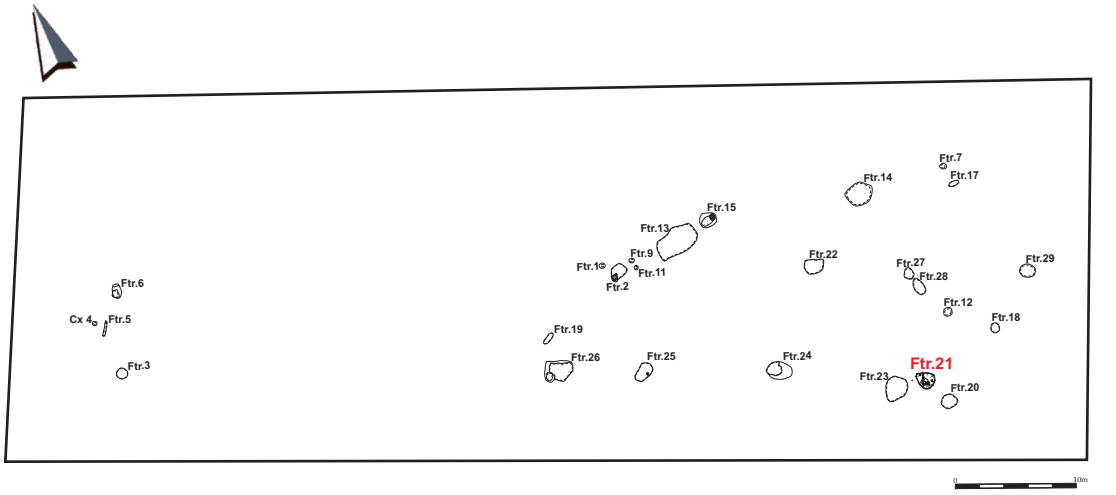


2.

Pl. I. 1. Geographic and administrative location of Pecica. Map showing the distribution of sites where ceramic firing kilns have been discovered. Location of Site 16 (map by Florin Mărginean);
2. Site location on the First and Second Austrian Military Surveys (https://maps.arcanum.com/en/map/europe-18th-19th centuries).

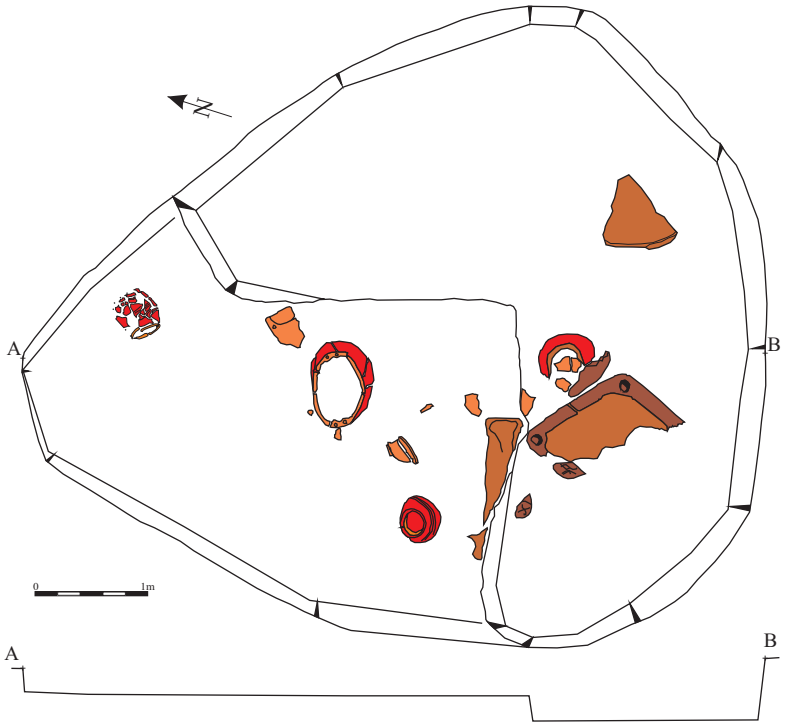


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2.

Pl. II. 1. Digital Elevation Model showing the location of the Pecica Site 16 (by Florin Mărginean); **2.** General topographic plan of the excavation (by Vanderlay Arheo).



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2.

Pl. III. 1–2. Graphic drawing and general photograph of Ftr_21 – Pecica Site 16 (drawing and photo by the excavation team).



1.

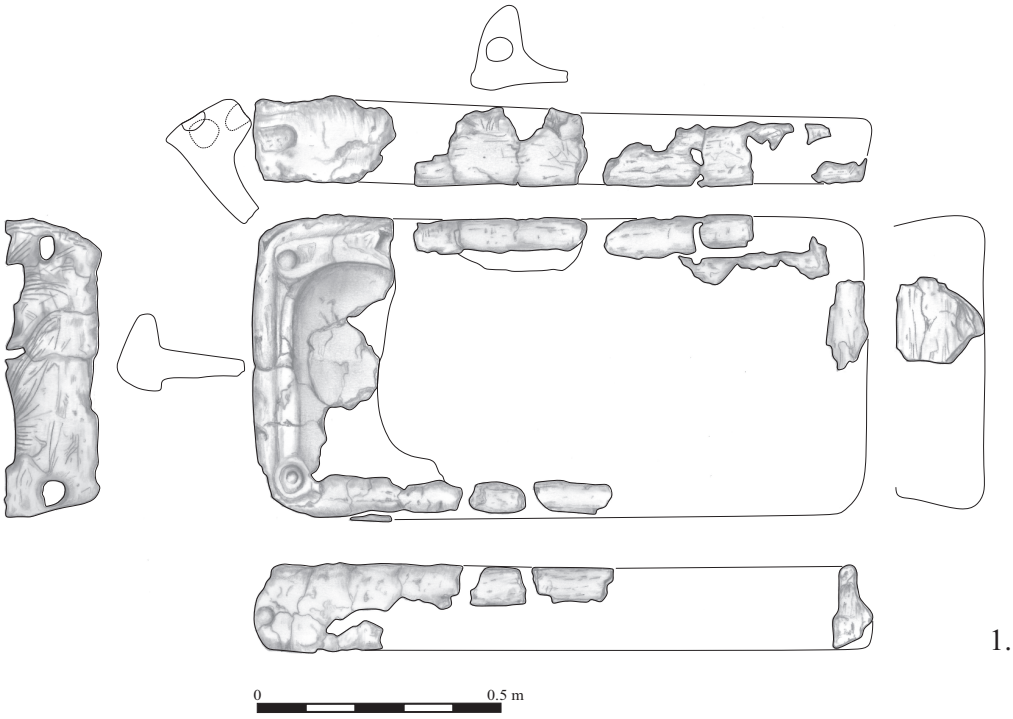


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3.

Pl. IV. 1–3. Photographs showing details of the contexts uncovered in Ftr_21 – Pecica Site 16 (photos by the excavation team).



1.

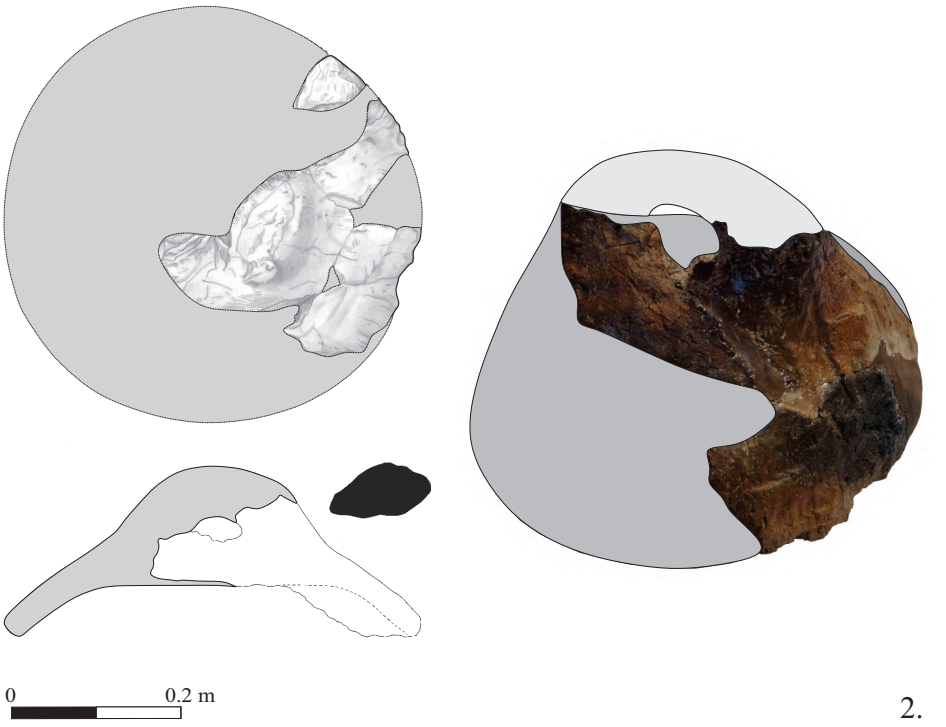


2.

Pl. V. 1–2. Drawing and image of the reconstructed platter discovered in Ftr_21 – Pecica Site 16 (drawing by Zamfir Șomcutean and Anca Diaconescu; restoration by Dorian Ghiman; photo by Florin Mărginean).

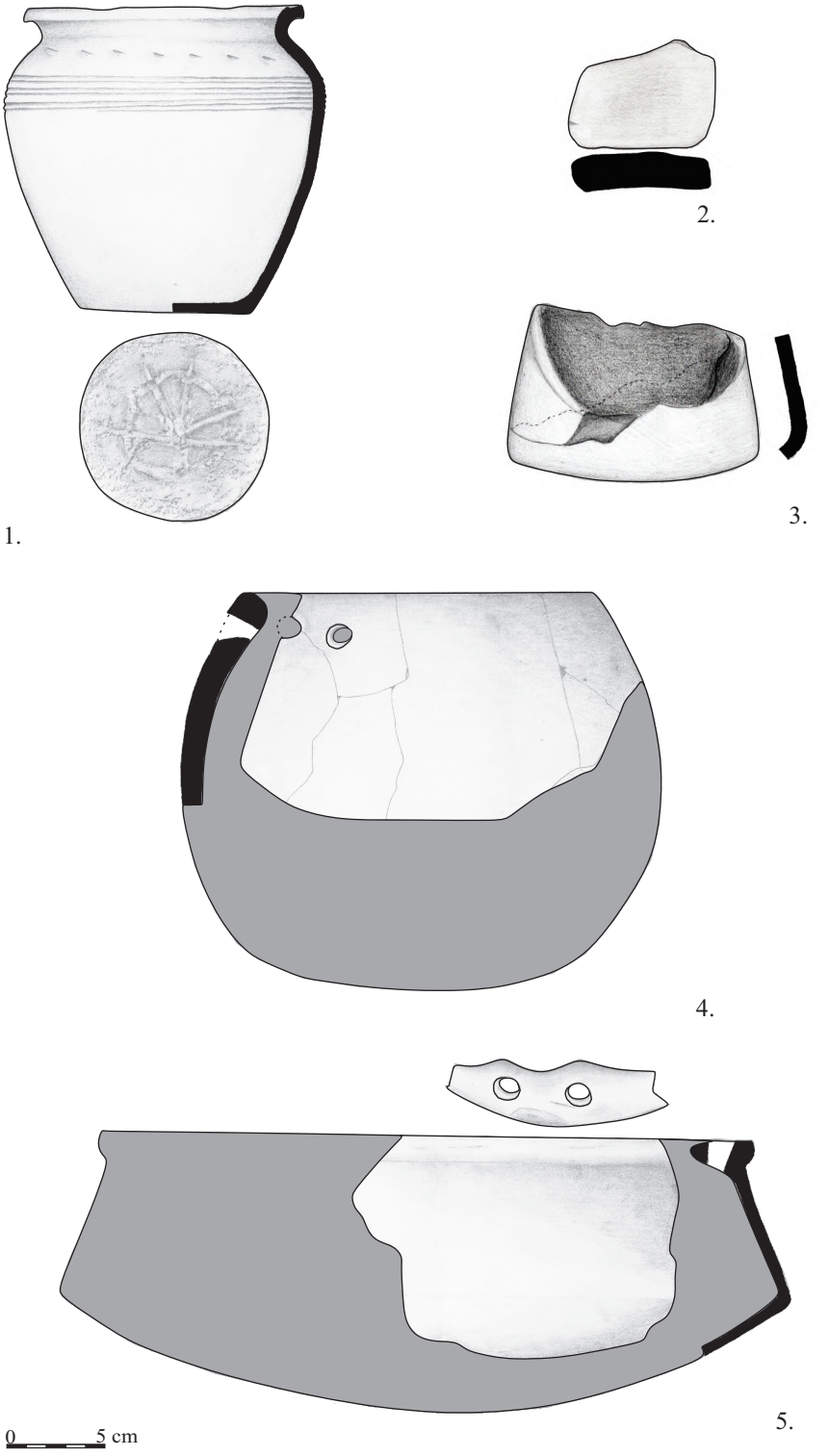


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Pl. VI. 1. Fragments of the rim of another platter(?) or merely remains from a repair (upside down positioning); **2.** Drawing and image of a reconstructed baking bell (*țest*) – Pecica Site 16 (drawing by Zamfir Șomcutean and Anca Diaconescu; restoration by Dorian Ghiman; photo by Florin Mărginean).



Pl. VII. 1–5. Ceramic vessels and utensils discovered in Ftr_21 – Pecica Site 16 (drawing by Daniel Preda).

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A MEDIEVAL MATRIX FROM THE COLLECTION OF THE NATIONAL MUSEUM OF TRANSYLVANIAN HISTORY

ANDREA DEMJÉN*

Abstract: The medieval bronze matrix was discovered in 2022 with the help of a metal detector, in the area of Tăuți, the commune of Florești (Cluj County). It features geometric and vegetal motifs and uncial letters incised in negative on both sides.

A comparison of stylistic and epigraphic analogies with liturgical objects and architectural pieces from Transylvania and other European centers supports a dating between the second half of the fourteenth century and the first half of the fifteenth century. The diversity of the motif types and the decorative configuration suggest multiple functions: the matrix could have been used to craft patterns for decorating cult objects, garments, or secular accessories. This article aims to establish the chronological and functional attribution of the matrix through a comparative analysis of functional and stylistic analogies from the same period.

Keywords: Transylvania, bronze matrix, fourteenth–fifteenth centuries, uncial letters, vegetal and geometric fittings

Rezumat: Matrița medievală din bronz a fost descoperită în 2022 cu ajutorul unui detector de metale, pe raza localității Tăuți, com. Florești (jud. Cluj). Ea prezintă pe ambele fețe, incizate în negativ, elemente geometrice, vegetale și litere unciale.

Compararea analogiilor stilistice și epigrafice cu obiecte liturgice și piese arhitecturale din spațiul transilvănean, precum și din alte centre europene, susține o datare cuprinsă între a doua jumătate a secolului al XIV-lea și prima jumătate a secolului al XV-lea. Diversitatea tipurilor de aplici și configurația decorativă sugerează o funcționalitate multiplă: matrița putea fi utilizată pentru confecționarea unor aplici destinate ornamentării obiectelor de cult, a veșmintelor sau a accesoriilor laice. Articolul de față își propune să stabilească atribuirea cronologică și funcțională a matriței prin intermediul unei analize comparative, bazate pe analogii funcționale și stilistice din aceeași epocă.

Cuvinte cheie: Transilvania, matriță din bronz, secolele XIV–XV, litere unciale, aplici vegetale și geometrice

The medieval bronze matrix presented in this article was discovered in January 2022, with the help of a metal detector, in the area of Tăuți, the commune of Florești (Cluj County).[1] The piece was donated by its finder to the National Museum of Transylvanian History in Cluj-Napoca (MNIT) and is included in the Medieval and Pre-Modern Collection (Colecția F) under inventory number F 29983.[2]

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[1] The finder, Iuliu-Alexandru Oprea, handed the object over to the Cluj County Directorate for Culture, in compliance with current legislation.

[2] We would like to thank Mr. Oprea for adhering to best practices.

Matrix description

The bronze matrix from Tăuți is rectangular, with geometric and vegetal motifs and uncial letters incised in negative on both sides. Dimensions:[3] max. L 77.42 mm; max. W 53.92 mm; thickness 5.1–6.2 mm; weight 145.72 g. Its upper edge was hammered and is slightly irregular, with rounded corners; the left corner has been missing since ancient times, while the rest of the piece retains the original shape in which it was cast using the lost-wax technique.[4] The technical description of the object was made from right to left, for each register/line separately, and each ornament/fitting was measured individually (Pl. I/1–2).

In the lower area of the front of the matrix (Pl. I/1/a, 2/a), there is an ornamental band/frieze with vegetal motifs (dimensions: L 58.95–60.13 mm; W 15.58–16.87 mm). Framed by a simple, recessed linear outline is a decoration representing a tendril in the form of a wavy line, which fills the entire decorative space. Both the tendril and the areas between the waves are decorated with stylized flowers. Part of the ornament is missing, as the lower left corner is broken off.

Above the ornamental band there are three uncial letters: on the right is a stylized **I** (H: 14.26 mm; W: 11.01 mm; incision depth: 1.04 mm),[5] followed by a **P** (H: 13.83 mm; W: 14.14 mm; incision depth: 0.93 mm). The next letter **I** has a circular bulge in the center and is positioned horizontally (H: 13.92 mm; W: 8.84–11.92 mm; incision depth: 1.04 mm). This series ends with a circular ornament with a central bulge (H: 15.54 mm; W: 14.90 mm; incision depth: 1.03–2.55 mm; Pl. II/3).

In the upper part of the matrix, in the right corner, is a square with recessed edges (W: 9.71 mm), and a floral motif in the center. In a rectangular outline, incised much more superficially (L: 27.86 mm; W: 9.45 mm), there is a wavy tendril ending in a flower with three petals. The upper area of the outline appears to be joined to the square-shaped decoration via a thin incision.

This side of the matrix shows significant traces of functional wear, observable on the circular ornament, scratches (for example, on the letter **P** and on the lower decoration, four oblique incisions, probably made with a chisel, can be seen under a microscope), and a hammer blow under the horizontal letter **I**. In the central part of the lower area, the piece has a crack (L: 9.84 mm; W: 0.98 mm), which is much more visible on the opposite side of the matrix.

The other side of the matrix has a different appearance from the one described above (Pl. I/1/b, 2/b). The lower right corner is broken, making it difficult to identify the motif. It was probably used for the production of four-lobed floral fitting pattern, each lobe flanked by a circle on the edges. Inside each lobe, there is a floral ornament in relief. A triangle can be distinguished at the bottom. The next motif is circular, decorated with swirl-shaped grooves (D: 15.55–16.50 mm; incision depth: 4.10 mm; Pl. II/1). Due to the recessed depth of the ornament (total thickness: 5.53 mm, of which 4.10 mm is the depth of the fitting), this part has cracked due to the heavy use of the matrix. In the lower left corner, the letter **W** can be identified, placed horizontally (H: 15.11 mm; min. W: 7.66 mm; max. W: 21.43 mm; incision depth: 0.70–1.04 mm; Pl. II/2).

[3] We have used the following abbreviations: L – length, W – width, H – height, D – diameter.

[4] On the casting of matrixes in the lost-wax technique, see also Florea et alii 2015, 81–82.

[5] The negative depths were measured after scanning and digitizing the piece (Pl. II/1–3).

The upper register of patterns begins with smaller motifs: a vegetal ornament with three branches arranged horizontally (H: 5.14 mm; W: 6.25 mm), followed by a five-petal flower (D: 5.32 mm; incision depth: 1.47 mm). Next to the flower is a circular ornament with a simple, recessed border. It is decorated all around with a pearl motif imitating a stylized rosette. The central circular part is rendered in negative (D: 13.54 mm). Two additional ornaments can be distinguished on the matrix, but their poor state of preservation prevents us from identifying their details precisely. The first appears to be a stylized rosette with four lobes, each with a loop at the corners and a circular central part in relief (D: 19.15 mm). On the edge of the matrix, there is a small circular ornament with a convex central part (max. D: 9.40 mm; inner D: 5.04 mm).

The upper left corner of the piece has irregular indentations, which are not decorative motifs. The object's surface shows fine scratches and signs of functional wear.

Physical and chemical investigations

The matrix was initially subjected to a curative conservation process, which contributed significantly to establishing the ornamental details of the piece[6] and a series of physical-chemical investigations. According to the results of spectrometric analysis,[7] the composition of the matrix's surface reveals an alloy with a high lead content, combined with copper and tin.[8] Since X-ray fluorescence spectrometry (XRF) provides limited information, coming only from the surface of the object,[9] two samples were taken from the area where the piece was broken for complementary analyses, capable of providing more accurate data on the internal morphological composition of the alloy.[10] These samples show that the matrix was made using a high copper content (74.30% and 76.70%, respectively) and variable proportions of lead, tin, zinc, and other elements.[11] The use of a copper-lead-tin alloy is common in medieval Europe for finished objects.[12]

[6] The curative conservation interventions were carried out in the MNIT Restoration Laboratory by restorer and engineer Radu Cordoș.

[7] The analyses were performed by Associate Professor Ph.D. Gabriel Katona, Faculty of Chemistry and Chemical Engineering, "Babeș-Bolyai" University, Cluj-Napoca, using the Elva X Prospector3 MAX portable EDXRF spectrometer with a large area SDD detector. The results were interpreted by Ph.D. Beatrix Andrea Magó, a physical-chemical investigation specialist at MNIT.

[8] Both sides of the matrix were analyzed during the investigation. The results obtained are as follows: *side 1* (Pl. I/1/a, I/2/a) – Pb: 53.8%, Cu: 30.90%, Sn: 10.0%, Zn: 2.43%, As: 1.34%, Ag: 0.66%, Sb: 0.60%, Cd: 0.10%, In: 0.09%; *side 2* (Pl. I/1/b, 2/b) – Pb: 52.00%, Cu: 26.00%, Sn: 15.00%, As: 2.00%, Zn: 2.00%, Ag: 0.75%, Ga: 0.06%, Cd: 0.03%, In: 0.03% (See: Analysis Bulletin No. 122/27.09.2022).

[9] According to specialized studies, tin and lead tend to concentrate or migrate to the surface of the object, which means that measurements limited to the surface layer can be potentially misleading (Benkő 2002, 42).

[10] The analyses were performed using an SEM–EDX optical microscope – Hitachi SU8230 scanning electron microscope, with a magnification range between 30×–500,000×, maximum resolution ~1 nm, Oxford Instruments EDX and EBSD detectors, and Aztec analysis software. The results were interpreted by Beatrix Andrea Magó, a specialist in physical and chemical investigations (see: Annex 1 to Analysis Bulletin No. 122/27.09.2022).

[11] Two samples were analyzed during the investigation. Sample 1 – Cu: 74.30%, Pb: 6.40%, Sn: 3.50%, O: 2.60%, Zn: 2.50%, and C, Al, Fe detected below the detection limit; Sample 2 – Cu: 76.70%, Pb: 4.30%, Sn: 3.70%, O: 3.00%, Zn: 2.20%, and C, Al, Fe detected below the detection limit.

[12] Brownsword 2004.

Analysis of the alloy composition of the matrix indicates similarities with bell bronze in terms of copper content. In the case of bell bronze, fairly pure tin was used, with few lead impurities.[13] Such a composition could produce a hard but brittle bronze, hardness being a basic requirement as well for the matrix used for multiplication. There is an essential difference here in the use of a more heterogeneous alloy, similar to the bronze used for the baptismal fonts or sculpture, more malleable but softer than bell bronze. The composition of the matrix alloy is intermediate between the two types of bronze. The presence of zinc, a component of brass and an element not exploited in significant quantities in Transylvania (Baia Mare) and the surrounding area, indicates a potential import.[14] The lack of comparative metallographic analyses performed on other medieval matrices limits the interpretation of the technological option.

Matrix usage technique

In the medieval period, craftsmen used two techniques for working precious metals: casting and hammering.[15] This technological distinction is essential for interpreting the functionality of the *matrix with hollow design* discovered at Tăuți, as well as the context in which it was used. Casting mainly required a permanent workshop furnished with the necessary equipment for melting metal, casting it into various molds, and areas where the finished pieces would be left to cool down and then finished. In contrast, hammering involved striking the raw material on an anvil to obtain metal plates/sheets. These were then placed on a matrix and pressed using a lead bar/piece. In this case, a permanent workshop was not necessary, as the tools and materials were portable, enabling the craftsman's mobility. Thus, the production of mobile objects of various shapes and sizes using a matrix became very popular. It allowed for the saving of materials and the use of metals such as gold, silver, and copper or lead-based alloys, which were valued for their elasticity. Strongly alloyed metals were not suitable for this technique, as alloys reduce the material's flexibility. Furthermore, this technology did not require special technical knowledge, such as that needed for casting objects.

Before use, the matrix was lightly greased with fat or oil, and the thin metal sheet was placed on top. It was pressed onto the matrix with a piece of wood or lead, and the pattern was imprinted with light blows to prevent the material or matrix from breaking due to sudden shock.[16] The matrix surface was covered with several motifs, so that each space on the metal sheet was used as efficiently as possible, and material waste was avoided. After finishing, the sheets were cut out, and small perforations were made on the edges so they could be fastened. The motifs on the matrix sometimes overlapped or intersected, but these minor imperfections became imperceptible after cutting. The fastening perforations were strategically placed in areas where they could conceal imperfections.[17] An interesting example is the matrix from the Hungarian National Museum's collection in Budapest. The piece presents such overlaps and intersecting motifs, which would not affect the craftsman's

[13] Benkő 2002, 44–47.

[14] We are grateful to Ph.D. Prof. Benkő Elek for the useful advice on alloys.

[15] Vattai 1953, 154; Immonen 2009, 97.

[16] Florea et alii 2015, 83–84.

[17] Vattai 1953, 156.

work, but are important because they allow the reconstruction of the chronological order of the motifs' creation.[18]

The technological process carried out in a goldsmith's workshop can be observed in the iconographic representations of the period, depicting both the stages of production and the tools used (hammer, anvil, etc.).[19] However, matrices are frequently missing from such representations, which raises some questions. In the Carpathian Basin, discoveries related to the activity of craftsmen are sporadic. The first mention of the existence of a goldsmith's workshop comes from Vršac (Hu. Versec, Serbia), where, according to the circumstances of the discovery, an iron anvil and a brass sheet fragment were identified next to a matrix, along with ash and burn marks, clues suggesting the existence of a goldsmith's workshop.[20] In the fortress of Buda, for example, three small hammers were found, which could be interpreted as tools that belonged to a goldsmith.[21] An important discovery was made in 2018, using a metal detector, near a medieval road connecting Târgu Mureș and Reghin to the city of Sighișoara. Here, a deposit containing tools, matrices, adornments, semi-finished pieces, and scrap was identified.[22]

Formal and functional analogies

Few material remains from medieval workshops have been preserved, which is why bronze matrices from the fourteenth century and the beginning of the following century are considered particularly valuable for reconstructing this activity. They were used to make ornaments that decorated belts, diadems, small chests, reliquaries, etc., but also for secular[23] or liturgical garments.

There are relatively few published analogies, most of which are accidental discoveries dating from the late nineteenth and early twentieth centuries. Thus, from the Carpathian Basin, we have information about only three matrixes: the first was discovered in 1892 at Vršac,[24] the second in 1906 at Bački Monoštor (Hu. Monostorszeg, Serbia),[25] and the third is in the collection of the Hungarian National Museum, but without a known place of

[18] Vattai 1953, 156, Pl. XI; Kolba 1982, 302–303, nos. 156–157; Kolba 1985, 53–55, Fig. 2; Lovag 1999, 102, 238, nos. 280a–d.

[19] The guild seal from Wrocław (Poland) depicts Bishop Eligius (patron saint of goldsmiths) with his cloak fluttering, working on an anvil fixed on a stand with a hammer (Hintze 1906, 22, Fig. 10). In the church codex of the goldsmiths' guild of Vác (Hungary; Cod. Lat. 377) from 1423, Bishop Eligius is also depicted, alongside tools, namely an anvil and hammers (Magyar Könyvszemle 1910, appendix 1; Hoffmann 1928, 80–81). A summary of the representations of workshops in the sixteenth and seventeenth centuries can be found in Vattai 1953, 152–154, Pl. XXVI; Pl. XXXIX./1–4.

[20] Milleker 1898, 412; Mihalik 1899, 34–41; Szabó 1938, 52, Fig. 253; Vattai 1953, 156.

[21] Vattai 1953, 156.

[22] Thanks to Zalán Győrfi for the new information, currently in the process of being published. For the details on the discoveries, see: https://muzeulmures.ro/ov-parta-loszerszam-kozepkori-veroto-a-marosvasarhelyi-nemetkalap-kornyekerol/, accessed 26 March 2025; https://www.cunoastelumea.ro/descoperire-unica-in-romania-si-europa-cerntrala-matritele-si-piesele-din-argint-si-bronz-ale-unui-atelier-de-orfevrar-medieval-descoperite-la-sangeorgiu-de-mures/, accessed 26 March 2025.

[23] https://keptar.oszk.hu/html/kepoldal/index.phtml?id=025887#, accessed 26 March 2025; Bárányné Oberschall 1939.

[24] Milleker 1898, 412; Mihalik 1899, 34–41; Szabó 1938, 52, Fig. 253; Vattai 1953, 156.

[25] Gubitza 1916, 206–209; Vattai 1953, 156.

origin.[26] Such pieces are likely to be found in other museum collections as well, but in the absence of specialists with solid knowledge of medieval material culture, they often remain unidentified or incorrectly catalogued. A recent example is provided by the National Museum of Banat in Timișoara, where, during inventory checks, three matrices from the old collections were rediscovered.[27]

In recent years, matrices have been discovered, as in the case of the piece from Tăuți, with the help of metal detectors. Among the most notable discoveries are the matrix found in Bečej (Hu.: Óbecse, Serbia),[28] or the above-mentioned one identified in the vicinity of the city of Târgu-Mureș. These pieces have not yet been subjected to detailed scientific analysis or properly assessed, which limits our understanding of their archaeological context, functionality, dating, etc. Additionally, a matrix dating from the fourteenth century has been reported in a private collection in Našice (Croatia).[29]

The three matrices, mentioned as having been published at the beginning of the last century, despite the morphological and stylistic individuality of each item, show significant similarities in their decorative repertoire. To provide a rigorous and contextualized interpretation of these objects, which are relatively little known in the specialized literature because they have been published only in Hungarian, it is necessary to present each piece in detail, correlating it with an investigation of the archaeological and historical conditions in which it was discovered.

The first matrix was discovered on 1 November 1892, in Péter Ditsch's vineyard, located on the northern edge of the Vršac city garden (on the site of the former medieval settlement), during drainage works. As mentioned above, it was noted that, in addition to the matrix, an iron anvil and a brass sheet fragment were found next to it, along with ashes and burn marks, all suggesting the existence of a goldsmith's workshop. According to Milleker, who first reported the discoveries, only this matrix ended up in the collection of the Vršac city museum, coming from the collection of Ede Rittinger.[30] The item has an irregular rectangular shape, measuring 132 × 91.0 mm, with a thickness of 11.0–12.0 mm (Pl. III/1). Given the intense signs of functional wear, it was difficult to identify the motifs. In interpreting them, we relied mainly on the description provided by J. Mihalik.

On the one hand, eight molds in negative are mentioned, although in reality, there are eleven or maybe even twelve. This side of the matrix is dominated by two large patterns: the first, located in the upper right corner, depicts a lion-bodied creature and an anthropomorphic figure in a decorative field consisting of six semicircles, framed by a pearled circle. The other motif, framed by an incised circle, depicts a rosette with a lion-bodied creature and an anthropomorphic figure holding a sword in its right hand in the center. Smaller patterns of various shapes and sizes were created in the spaces between these motifs. In the upper left corner, there is a circle inside which there is another circle in negative, flanked by four lobes. Underneath it, in an incised rectangular border, there are

[26] Vattai 1953, 156, Pl. XI; Kolba 1982, 302–303, Pl. 48/157.

[27] The existence of these pieces was brought to our attention by Zsuzsa Kopeczny (National Museum of Banat, Timișoara), whom we want to thank here.

[28] We would like to thank Raško Ramadanski from the Town Museum Bečej, Serbia, for the information provided.

[29] The information was provided to us by Andrei Prian, whom we would like to thank.

[30] Milleker 1898, 412.

two Gothic capital letters **Ɲ**. Under these letters, there is an illegible circular indentation. It is followed by another circular decorative element, representing a rosette whose petals are decorated with stars, which overlap another circular rosette. At the bottom of the matrix is a tendril with leaves and four-petal flowers, stamped with miniature stars. Next to it are two parallel dotted lines, and in the lower right corner, there is another rosette with six petals. On the right side of the matrix, between the two larger motifs, there is another one, interpreted as having the shape of an earring. The visible parts indicate a circular shape decorated with seven circles, with a bulge at the bottom and, according to the description, a flower with three branches at the top.[31]

The opposite side of the matrix features decorative patterns that are significantly more elaborate in style. These motifs are made in negative with remarkable attention to detail, presenting a variety of iconographic and compositional elements. Mihalik explicitly mentions twelve ornaments in the negative, although the piece actually has seventeen, which he describes alongside the other larger decorative elements. At the bottom of the matrix, there is a square ornament with pearled edges, decorated inside with a six-pointed star framed by circles. In its immediate vicinity is a four-lobed motif, at the center of which is a human face with long hair and a beard. This is followed by a rectangular decoration, ornamented with four hemispheres, framed by three pearl borders. In the lower left corner, a human face is depicted within a circular frame. Above these is another rectangular pattern, delimited by linear edges. In the center, it is framed by a rhombus containing a human face, flanked by a star in each corner. On the right side, there is a sphere in negative, followed by a rectangular incision and a partially illegible vegetal motif. Another motif, added later, is an eight-petal rosette decorated with small circles. On the left side of the rosette is a larger ornament depicting a biblical scene: Samson's struggle with the lion. Next to it is another circular rosette, framed by a pearled outline. In the center is a capital letter **Ɲ** placed in a hexagon, with circular decorations extending from its corners, each one containing the capital letter **Ɲ** in its center. In the upper right corner, in a rectangular border, is another letter **Ɲ**. Here, there is also a circular ornament depicting an angel with a halo, the symbol of Saint Matthew the Evangelist, holding a book in his left hand and an unidentifiable object in his raised right hand. On the right side, in a rectangular frame, there is a small crown. In the left corner of the matrix, there is a quadrilateral ornament with pearl edges, in the center of which there is a lion with a halo, holding a book in its paws, the symbol of Saint Mark the Evangelist. In the upper right corner, there is an incised rectangular outline, and in the lower left corner, there are six small circles spaced evenly.[32]

The item shows intense signs of functional wear, indicating prolonged use. Based on the decorative motifs and analogies with figurative ornaments, J. Mihalik dated the matrix to the end of the thirteenth century and the beginning of the next, noting that certain ornamental motifs were added later, in the fifteenth century.[33]

The matrix from Bački Monoštor was discovered during agricultural work near the Bartán fortress (approximately 4 km from the village).[34] The piece is almost square in shape,

[31] Mihalik 1899, 35–36, Fig. 1.
[32] Mihalik 1899, 36–38, Fig. 2.
[33] Mihalik 1899, 40–41.
[34] The item is part of the collection of the National Museum of Serbia in Belgrade.

measuring 110 × 100 mm, with a thickness of 30.0 mm, and is decorated on all sides (Pl. IV). On one side, there are twenty-two circular motifs of varying sizes (D: 6.0–28.0 mm), one of which is decorated with a stylized lily. The reverse features a large circular pattern at the center, surrounded by seven other spherical motifs (D: 23.0–50.0 mm), three elements for making links (14.0–20.0 mm), and, in one corner, a heraldic shield enclosed within a circular frame. On one side, the series of ornaments begins on the right with a small link, followed by an Anjou lily framed by two pearl circles and a small rosette. In the central area, a horn is suspended from a chain, decorated with a star on its edge. On the right, there are two patterns with vegetal motifs. On the other side, there is a rosette framed by a circle, two elements with vegetal motifs similar to those mentioned previously, and two shields, each framed in a circle, followed by a rectangular decoration, profiled and recessed in steps (dimensions: 35.0 × 22.0 mm). On the third side, the monogram **y h s** is visible, written in lowercase letters, symbol of the Saviour, framed by a simple circle followed by a shield and a rosette. The last side of the item features a tendril with leaves and rosettes, framed by double incised lines. Based on the decorative repertoire, K. Gubitza dates the piece to the fifteenth century, noting that the presence of a plant tendril on the fourth side suggests a possible extension of the chronology to later periods.[35]

The third matrix, preserved in the collection of the Hungarian National Museum,[36] is quite well known in specialized literature (Pl. III/2).[37] Made of bronze, the matrix has a parallelepiped shape and features engravings in negative on all sides (dimensions: L: 135 mm, W: 45.0 mm, thickness: 12.0 mm). On the first side, in the upper register, two large motifs with anthropomorphic representations can be distinguished: seated figures, each holding a flower in their hand, framed by a pearl border. Between the two figures is a human face, inscribed in a four-lobed border. Between the remaining spaces are several spherical motifs of various sizes. In the lower part of the same side are engraved stylized rosettes, framed by circular, square, and hexagonal borders, all with pearled and incised outlines. On the other side of the matrix, there are two zoomorphic representations (wolves) in the upper and lower areas, between which there are geometric and vegetal ornaments (Anjou lily, stylized rosettes), a crescent moon with a star, a capital letter inscribed in a circle, and the letter **A**, stamped with a floral crown. The sides are also decorated with patterns with geometric motifs and vegetal elements.[38] According to Lovag, the piece dates to the middle of the fourteenth century.[39]

Medieval bronze matrices dating from the fourteenth and fifteenth centuries offer an important insight into goldsmiths and the decorative practices of Central and Southeastern Europe. Although the discoveries are limited in number, the pieces analyzed demonstrate remarkable formal and functional diversity, each matrix being unique in its composition, decorative repertoire, and degree of detail. A comparative analysis of the three matrices – from Vršac, Bački Monoštor, and the Hungarian National Museum collection – reveals a rich

[35] Gubitza 1916, 207–208, Fig. 1–2.

[36] Inv. no. 58.205.C. The item is part of the permanent exhibition of the Hungarian National Museum, Budapest.

[37] Bárányné Oberschall 1939; Vattai 1953, 156, Pl. XI; Kolba 1982, 302–303, Pl. 48/157; Kolba 1985, 51–56, Fig. 2; Lovag 1999, 102, 238, nos. 280 a–b.

[38] Kolba 1982, 302–303, Pl. 48/157; Lovag 1999, 102, 238, nos. 280 a–b.

[39] Lovag 1999, 102.

decorative repertoire with anthropomorphic, zoomorphic, vegetal, and religious motifs, which, although stylistically individualized, reveal common influences. Functionally, these matrices were mainly used to make ornaments for clothing and accessories (belts, diadems[40]), indicating a production specializing in the decoration of luxury clothing and other items.

Regarding the functional analogies of these motifs, we may cite several relevant examples from the ecclesiastical environment, especially in Western Europe. A remarkable case is a piece of fabric richly decorated with 1,300 gilded silver ornaments and capital letters, attributed, according to historical tradition, to the wedding dress of Queen Agnes, wife of King Andrew III (Pl. VI/3–4).[41] The piece from Sarnen (Switzerland) has undergone several interventions over the centuries: it was transformed into an antependium and a cloak for a wooden statue.[42] Similar patterns, sewn onto liturgical vestments from the fourteenth century, are found mainly in Germany: in the collection of the Cathedral Museum in Halberstadt,[43] in the museum of the Wienhausen Monastery,[44] on the antependium from the Marienwerder Monastery,[45] and at the Isenhagen Monastery.[46] Notable examples

[40] The use of metal ornaments on textile or leather backings, as adornments for diadems or belts, is illustrated in several colored miniatures of the *Codex Manesse* (Zürich, cca. 1300–1340), diadems: https://doi.org/10.11588/diglit.2222#0215, https://doi.org/10.11588/diglit.2222#0334, https://doi.org/10.11588/diglit.2222#0351, belt: https://doi.org/10.11588/diglit.2222#0164, accessed 26 May 2025.

[41] Queen Agnes, the second wife of King Andrew III of Hungary, died in 1364 in the Clarisses' monastery in Königsfelden, leaving the goods she had brought from Hungary to the monastic community. Some of these objects were later transferred to the St. Andrew's Monastery in Sarnen. Among them was a textile fragment decorated with gilded silver fittings, which was transformed into an antependium (Durrer 1899, 670–671, Pl. XXX–XXXIII) and a cloak for a wooden statue of Infant Jesus, known today as the *Sarner Jesuskind* (Durrer 1899, 667–668, Fig. 413, Pl. XXIX–XXX). The formal and stylistic analysis of these fittings has shown that they could not have come from the wedding dress of Queen Agnes (who married King Andrew at the end of 1297 and left Hungary in 1301 after his death), as their technical and decorative characteristics place them chronologically after 1330–1340, several decades after the events in question (Durrer 1899, 673–676).

[42] For the history of the piece, detailed description and stylistic analysis, see: Durrer 1899, 661–676, Fig. 411–413, Pl. XXIX–XXXIII; https://keptar.oszk.hu/html/kepoldal/index.phtml?id=025887#, accessed 26 March 2025; Szabó 1938, 52, Fig. 254; Bárányné Oberschall 1939. The item is currently kept in the Saint Andrew Benedictine nuns monastery in Sarnen. The monastery is currently an important place of pilgrimage (https://www.frauenkloster-sarnen.ch/sarner-jesuskind/, accessed 26 March 2025).

[43] A humeral is decorated with gilded silver fittings (Braun 1907, 37). The website administered by J. Funk Segrest documents European textiles embroidered with beads and precious metal plates, dating from the tenth to the seventeenth centuries. The published objects, accompanied by photographs, are a valuable resource for research into historical textiles. The website also features several black and white images dating from the first half of the twentieth century, accompanied by notes stating that they illustrate cloaks for statuettes or a richly ornamented silk covering with metal patterns, found in the Dommuseum Collection in Halberstadt (Benkő 2002, 176; https://medievalbeads.com/category/documentation/by-century/14c/, accessed 26 March 2025). The original photographs are now in the photo library of the Zentralinstitut für Kunstgeschichte, Munich (https://iiif.arthistoricum.net/mirador/proxy/fotothek/df_bika030_0001082_motiv/#0efb7249-b32a-4554-aaba-759cae288ce4, accessed 27 March 2025) and the Bildarchiv Foto Marburg (https://www.bildindex.de/document/obj20635235?medium=mi00773a01, accessed 10 June 2025).

[44] https://www.bildindex.de/document/obj20017930?part=0&medium=fmlac7091_05, accessed 20 May 2025.

[45] The piece is part of the Kestner Museum Collection in Hanover (Inv. no. W.M. XXII,5); https://medievalbeads.com/14th-century-marienwerder-antependium/, accessed 20 May 2025.

[46] The piece is part of the Kestner Museum Collection in Hanover (Frey 2014, 100, Fig. 106; Benkő 2002, 175–176; https://medievalbeads.com/14th-century-altar-edging/, accessed 20 May 2025).

also include the motifs and majuscules sewn on the antependium from Cheb (Czech Republic),[47] another significant example of liturgical textile decoration, as well as the gilded fitting patterns preserved on an amice and two humerals from St. Mary's Church in Gdańsk (Poland).[48] In a monastic context, numerous ornaments of various shapes and motifs can be listed, discovered during archaeological excavations at the monastery of Seehausen in Uckermark (Germany),[49] which attest to the production of these patterns in the monastic environment, probably for liturgical use. In Transylvania, also in a monastic context, a silver-plated bronze ornament decorated with the symbol of alchemy was discovered at the monastery in Vinţu de Jos (Alba County), which was attributed to a small chest.[50]

In addition to these analogies, it is worth mentioning the use of metal ornaments to decorate various types of reliquaries. Some eloquent examples in this regard are a small box made of horn, decorated with metal patterns, found in the heritage of the Cathedral of St. Stephen and St. Sixtus in Halberstadt,[51] a reliquary from St. Michaelis church in Lüneburg,[52] and the reliquary of the arm of St. Ladislaus, King of Hungary (c. 1040–1095), kept in Dubrovnik (Croatia) and made in the fifteenth century.[53]

In addition to these pieces preserved in ecclesiastical contexts, archaeological discoveries provide valuable information on the use of patterns in broader contexts, not just religious ones. Such pieces have been reported in Hungary for more than 100 years, coming from both chance discoveries[54] and archaeological research carried out in various cemeteries around churches[55] or in urban residences.[56] The pieces discovered either pertained to the decoration of garments or adorned diadems or belts.

As regards Romania, S. Oţa,[57] in his 2007 article on diadem plates, analyzes all the discoveries published up to that point in Romania, particularly in Banat,[58] Oltenia, and

[47] Tietz-Strödel 1992, 248–258. The piece is part of the Cheb Museum Collection: https://muzeumcheb.cz/historic-exhibition/#gallery/eb301a66372dd3f00b26d6c83c64266d/248, accessed 12 May 2025. For additional information and photos, please visit: https://medievalbeads.com/14th-c-antipenidum-cheb/, accessed 12 May 2025.

[48] Braun 1907, 34, 37, Figs. 3, 7.

[49] Frey 2014, 99–100, Fig. 104. Some of these finds are in the Seehausen Monastery Collection of the Dominican Monastery Museum in Prenzlau: https://global.museum-digital.org/object/65609, accessed 20 May 2025.

[50] Rusu 1998, 5–6, 38, cat. 35. The piece is part of the heritage of the National Museum of Transylvanian History, in the Medieval and Pre-Modern Collection (Colecţia MNIT, no. F 27491).

[51] https://st.museum-digital.de/object/110588, accessed 20 May 2025; https://www.inschriften.net/halberstadt-dom/inschrift/nr/di075–0024.html?tx_hisodat_sources%5Baction%5D=show&tx_hisodat_sources%5Bcontroller%5D=Sources&cHash=3ab6580a4040d179731f419f1ac4d02d, accessed 21 May 2025.

[52] Eckhard 1984, DI 24, no. 7; https://www.inschriften.net/lueneburg-kloester-michaelis-und-luene/inschriften/nr/di024–0007.html, accessed 26 May 2025.

[53] Fraknói 1898, 193–195, Fig. 1–2; Lupis 2010, 196–197.

[54] The patterns discovered at: Fehértó (Hampel 1876, 160–161), Kiskunhalas – Bodoglárpuszta (Bárányné Oberschall 1945, 13–21), Körmend (Vattai 1956, 67–75), Kelebia (Kőhegyi 1972, 207–215).

[55] See, for example, the cemeteries of Kaszaper (Bálint 1938, 12–14, Pl. XV, XVII); Ágasegyháza, Aranyegyháza, Bene (Szabó 1938, 40–43, Fig. 133, 152, 158; 50–52, Fig. 226–246; 58–60, Fig. 323–329, 61–70, Fig. 344–349); Csút (Gerevich 1943, 144–158, Fig. 23, 30–32); Henye (K. Németh 2002, 149–160, Fig. 6), etc.

[56] From the royal palace of Buda (Budapest, Hungary; Horváth 2016, 104–109, Pl. XXVI).

[57] Oţa 2007, 117–156; Oţa 2012, 123–142.

[58] For the motifs from Banat, see: Ţeicu 2009, 59–62, 83–84, Pl. 33–34, Fig. 26–27.

Moldova.[59] The author emphasizes that these pieces, coming from both treasures and cemeteries, are specific to the Balkan Peninsula.[60] Meanwhile, however, their presence has also been reported in Transylvania. Nevertheless, only a few discoveries are known from this area. In tomb M33 at Cluj-Mănăștur, a fragmentary openwork copper ornament was identified.[61] Another example comes from the Roman Catholic cathedral in Alba Iulia.[62] In tomb M52 from the Franciscan monastery in Târgu-Mureș, a series of distinctive diadem ornaments was discovered.[63] The inventory of motifs is completed by the discoveries from tombs M3a, b, and M6, or the pieces found in a secondary position at the Roman Catholic church in Joseni (Harghita County).[64] Another discovery, still unpublished, comes from the rotunda in Geoagiu (Hunedoara County).[65] Beyond the funerary discoveries, we may point out the existence of fragmentary patterns in the settlement of Sf. Gheorghe – *Bedeháza* (Covasna County),[66] respectively, some scraps resulting from the production process originating from the palace in the Lita Fortress (Liteni, Cluj County; Colecția MNIT, no. F 29127). Other relevant pieces come from Cluj-Napoca and are currently part of the MNIT collection. Thus, following archaeological excavations carried out in 1984 on Cuza Vodă Street, fragments of copper plates and scraps were discovered (Colecția MNIT, nos. F 29132–F29133),[67] and in Unirii Square, copper scraps, a fragment of an ornament with Gothic letters (Colecția MNIT, no. F 29134), as well as two fragments of another ornament (Colecția MNIT, no. F 29136),[68] were also identified. This series of objects is completed by the medieval ornaments from the Oradea fortress, including a fragmentary plate with the capital letter **P**,[69] other fragmentary fittings,[70] and a codex cover ornament with the lowercase letter **a**, stamped with a crown surmounted by three fleurons.[71] A relatively late documentary source, dating from 1531 in Cluj, mentions that Mrs. Orsolya, the widow of P. Zilahi, left her sister garments decorated with silver *plates* in

[59] A more extensive work on the patterns discovered in the Carpathian-Danubian and Carpathian-Dniester regions (Reabțeva 2012, 93–104).

[60] Oța 2007, 117–156.

[61] Iambor, Matei 1979, 604, 617, Pl. VIII. The piece is part of the patrimony of the National Museum of Transylvanian History, in the Medieval and Pre-Modern Collection (Colecția MNIT, no. F 24176).

[62] Marcu Istrate 2008, 242–243, Pl. 188/11.

[63] Soós, Gál 2010, 187–203.

[64] Kósa et alii 2011, 330–331, 334, Pl. 4/3; Demjén 2021, 306–307, 312–314, Fig. 11, Pl. 4/2.

[65] A fragmentary fitting decorated with a floral motif was discovered in a secondary position in section S 4/1995 (Colecția MNIT, no. F 30248), and another fitting, intact, decorated with the same motif, together with a fragment belonging to a similar fitting, was identified in a secondary position in section S 16/2001 (Colecția MNIT, no. F 30265. We would like to express our gratitude to Ph.D. Gheorghe Petrov for the information provided.

[66] Horedt 1956, 22, 32, Fig. 17/4.

[67] A plan was published in the *Archaeological Repertory of Cluj County* (*Repertoriul arheologic al județului Cluj*) for the archaeological excavation on Cuza Vodă Street, namely the general plan of the section, accompanied by a profile without a legend and by other notes, which makes interpretation impossible (Crișan et alii 1992, 139–140, Fig. 71, 72). The inventory register states that the pieces were recovered from a depth of 2.50 m.

[68] The inventory register states that the pieces were recovered in 1968 from a depth of 2.50–2.70 m.

[69] Rusu 2002, 161, Tab. 8/d, Pl. LVIII/a.

[70] Rusu 2002, 91, 160–161, Pl. LVIII/d, f–j.

[71] Rusu 1993, 82, Fig. 13/3; Rusu 2002, 90, 157, Pl. LVIII/b.

her will.[72] This is a relevant indication of the persistence of decorative elements of this type in the Pre-modern period.

More distant analogies of the Tăuți matrix, with religious scenes (the crucifixion scene), together with a coat of arms and stylized rosette, appear in northern Europe, near Turku, Finland.[73] Other examples, with simpler decoration predominantly featuring geometric motifs, associated with belt accessories, can be found in the collection of the National Museum of Antiquities in Leiden (Netherlands).[74] Regarding the geographical distribution of these artifacts, S. Krabath carried out a systematic inventory of matrices from northern Europe, concluding that such pieces were identified exclusively in the Scandinavian and Hungarian areas[75] (Pl. V). This observation actually reflects the state of discoveries as of 2001, since until recently no such pieces had been reported either in Western Europe or on the territory of Romania. In recent years, a relatively large number of matrices have been discovered, prompting us to reevaluate the assertion that these types of objects were specific and limited in both time and space.

All these discoveries demonstrate that the fittings made using bronze matrices were widely used in ecclesiastical and funerary contexts. The pieces found in the collections of various European museums, as well as the discoveries made by chance or as a result of archaeological research, highlight their decorative and symbolic function in the liturgical context, as well as their presence in secular environments, indicating the circulation and adaptability of this type of ornament in various cultural spaces. As we have seen, such objects were not unknown to the noble elite of Transylvania, especially in urban areas.

The MNIT collection matrix: stylistic and chronological considerations

Returning to the stylistic analysis of the matrix recently added to the MNIT collection, we may note that some of the fittings represented in negative have formal analogies in the decorations found on bells and baptismal fonts in Transylvania, as well as in some architectural elements (especially tombstones and doors) from Hungary. The decorative band at the bottom of the piece, consisting of a tendril accompanied by stylized plant motifs, reproduces, in a schematic way, the ornamental motif on the baptismal font from Mediaș (Sibiu County)[76] or on the medieval bell from Reciu (Alba County).[77] From a functional point of view, such a piece has multiple uses, as decorative bands can be applied to the edges of codex covers,[78] reliquaries,[79] or other liturgical objects, according to documented ecclesiastical analogies. Such decorative bands, with much more elaborate motifs, appear on one side of the Bački Monoštor matrix,[80] as well as on the one from Târgu Mureș.[81]

[72] *Vestem suam muliebrem ex taphotha coloris thewdewklew factam cum fibulis et attinentiis lamineis argenteis […] rubeum palium […] cum laminibus argenteis deornatum* (Jakó 1990, II, no. 4362).

[73] Immonen 2009, 73–74, Fig. 8, 9; Immonen 2011, 212–213, Fig. 13.

[74] https://artsandculture.google.com/story/7QWRigWK2MaHJA?hl=nl, accessed 3 June 2025.

[75] Krabath 2001, 263–264, footnote 1566, map 64.

[76] Benkő 2002, 395–401, 432–433, III. 45.

[77] Benkő 2002, 351, 488–489, III. 206.

[78] https://www.deutschefotothek.de/documents/obj/33040115, accessed 27 May 2025.

[79] Fraknói 1898, 193–195, Fig. 1–2; Eckhard 1984, DI 24, no. 7; Lupis 2010, 196–197.

[80] Gubitza 1916, 207–208, Fig. 2.

[81] https://www.cunoastelumea.ro/descoperire-unica-in-romania-si-europa-cerntrala-matritele-si-piesele-din-argint-si-bronz-ale-unui-atelier-de-orfevrar-medieval-descoperite-la-sangeorgiu-de-mures/, accessed 26 March 2025.

At the top of the matrix, two fittings are visibly different, both morphologically and stylistically, from the rest of the composition. The lines and decoration are executed more carelessly. The rectangular ornament, which imitates the motifs of the lower register, slightly intersects the letter **I** and appears unfinished. The upper area of the border is connected by a thin incision to the square decoration, suggesting it was added later. Variations of the square fitting, with a flower in their center, appear frequently on other matrices (see, for example, the piece in the Hungarian National Museum collection; Pl. III/2[82]).

The decorative band is followed by a succession of capital letters made in negative. The two stylized capital letters **I**, one characterized by a circular bulge on one side, the other by a circular bulge accompanied by a decorative wavy line, prove difficult to identify in specialized literature. In medieval material culture, the letter **I** is usually rendered with a prominent central node, as can be seen, for example, on the baptismal font from Mediaș,[83] on the sacristy door of the Reformed church from Rudabánya (Hungary)[84] and Leles (Slovakia),[85] as well as on the antependium from Cheb.[86] However, the shape differs significantly from those presented on the matrix from Tăuți. The only relevant stylistic analogies were identified on signet rings dated to the second half of the fourteenth century and the first decades of the following century.[87]

As for the capital letter **P**, the best analogies appear on the fourteenth-century bell from Petrești (Alba County),[88] the baptismal font from Mediaș,[89] or, somewhat further, on the bell from Südlohn (Germany) dated 1390.[90] Evidence of the use of these types of majuscules can be found on funerary monuments[91] as well as on the two medieval doors mentioned previously from Rudabánya and Leles.[92] The same letter shape also appears on signet rings dated to the second half of the fourteenth century and the first decades of the fifteenth century.[93] This series of objects is completed by a fragmentary ornament with the capital letter **P** discovered in the Oradea fortress.[94] J. Kolba conducted a comparative analysis of the letters presented on Hungarian mint-marks and seals from the thirteenth–fourteenth centuries (from the reign of Béla IV in 1235 to the end of the reign of Louis I of Hungary in 1382). There is an increased frequency of this letter type during the reign of Louis I (1342–1382).[95] However, subsequent, more exhaustive research on coin mint-marks

[82] Vattai 1953, 156, Pl. XI; Kolba 1982, 302–303, Pl. 48/157.

[83] Benkő 2002, 395–401, 432–433, III. 45.

[84] Budapesti Visszhang 1856, 288; Technika 1946, 220–221; Gyulai 2019, 232–233.

[85] Lehoczky 1871, 277–279, Fig. 4; Bárányné Oberschall 1939.

[86] Tietz-Strödel 1992, 248–258; https://muzeumcheb.cz/historic-exhibition/#gallery/eb301a66372dd3f00b-26d6c83c64266d/248; https://medievalbeads.com/14th-c-antipenidum-cheb/, accessed 12 May 2025.

[87] Litauszki 2012, 34–35, Pl. XVII/1–8.

[88] Benkő 2002, 330, I. 271.

[89] Benkő 2002, 395–401, II. 5.

[90] Benkő 2002, 113.

[91] A relevant example is the tombstone of Andreas Seip, dated 1374, from the St. Elisabeth church in Košice, Slovakia (Lővei 2005, 81, Fig. 2/1; Lővei 2024, 246, Fig. 5).

[92] Lehoczky 1871, 277–279, Fig. 4; Budapesti Visszhang 1856, 288; Bárányné Oberschall 1939; Technika 1946, 220–221; Gyulai 2019, 232–233.

[93] Litauszki 2012, 36–37, 101–102, Pl. XX/4.

[94] Rusu 2002, 161, Tab. 8/d, Pl. LVIII/a.

[95] Kolba 1982, 52–53, Fig. 1. The capital letter **P** appears on mint-marks from the reign of Louis I, on denarii issued between 1342–1345 and 1345–1357 (Lengyel 2020, 90, 25/9A/8; 92, 25/11/7; 94, 2512/5), on groschen

from the early fifteenth century has revealed the continued use of this type of capital letters during the reign of Sigismund of Luxembourg (1386–1437),[96] as well as on posthumous coins of King Albert issued in 1440 (1437–1439).[97] More stylized variants of these letters are attested on the coins of King Vladislav I (1440–1444),[98] during the interregnum (1444–1446),[99] and the last known examples appear on the coinage of King Matthias Corvinus (1458–1490).[100]

The series of capital letters on this side of the Tăuți matrix ends with a rather strange character, which, at first glance, can be interpreted as a stylized **O**. The presence of a circular negative indentation, located in the central part of the fitting, is a morphological detail that suggests a decorative function (decorative fitting pattern or buttons) rather than a textual one. Similar fittings were discovered in the Pritzwalk Hoard (Germany), hidden after 1392.[101]

The capital letter **W**, located on the other side of the matrix, which at first glance seems different from those presented previously, should also be analyzed in the same context. The letter **W** appeared in the eleventh century, formed by the juxtaposition of two Vs.[102] The presence of the capital **W** is attested, for example, on the donation plate of King Emeric (1174–1204), dated between 1196 and 1204, coming from the Cistercian monastery in Zirc (Hungary).[103] Later, different variants of this shape appear in the *Codex Manesse* (c. 1300–1340),[104] and the closest iconographic analogy can be identified on the sacristy door from Rudabánya.[105] The letter **W** is also present on Hungarian coin mint-marks, from the issues of the reign of King Sigismund of Luxembourg (1387–1437)[106] to those from the reign of King Matthias Corvinus (1458–1490).[107]

Gothic capital letters appear on several of the matrices analyzed in this article, both as individual elements and as part of circular or rectangular compositions. Thus, the letter **Ŋ** appears on the matrix discovered at Vršac,[108] while the letters ***A*** (stamped with a floral crown), **C**, and **M** are represented on the one from the collection of the Hungarian National Museum.[109] The letter **P** is present on the Târgu Mureș matrix, while the one

issued in Buda in 1366 (Lengyel 2020, 84–86, 25/4/1–25/4B/1; 108, 25/39/6–7; 118, 25/44/15–25/44/19), as well as on denarii issued in Poznań between 1370–1382 (Lengyel 2020, 134, 25/59/1–2).

[96] Lengyel 2021, 28, 27/4/26; 48, 27/8/21–22; 54, 27/8/48–50.

[97] Lengyel 2021, 92, 28/5/9; 96, 28/6/6.

[98] Lengyel 2022, 26–27, 29/2/26–31; 34, 29/2C/7–9; 58, 29/9/28–30; 68, 29/14/19–20, etc.

[99] Lengyel 2022, 88, 30/1/8.

[100] Lengyel 2022, 156, 32/12/4, 8; Huszár 1979, 696–698, 722.

[101] Krabath et alii 2006, 17–23, 62–63, 116–119, Fig. 7, 44–45/281–347.

[102] Albu 2004, 118. A late example of the formation of the letter W by joining two V's can be found on the tombstone of the craftsman Nicolaus, son of *Ban* Nicolae of Grad (Hu. Felsőlendva, Slovenia), dated 1346 (Engel, Lővei, Varga 1981, 143–144, Fig. 3).

[103] Marosi 1984, 123, 235, Fig. 170.

[104] *Codex Manesse,* https://doi.org/10.11588/diglit.2222#0033, accessed 30 May 2025.

[105] Budapesti Visszhang 1856, 288; Technika 1946, 220–221; Gyulai 2019, 232–233.

[106] Lengyel 2021, 40, 27/6/16; 42, 27/6/25; 66, 27/13/7; 72, 27/15/17; 76, 27/15/35; 80, 27/15/54. Various shapes from King Vladislav I (1440–1444; Lengyel 2022, 26, 29/2/24; 28, 29/2/35; 30, 29/2/42–49; 34–35, 29/2C/12–17, 40, 29/4/15–20; 60, 29/9/38–40, etc.)

[107] Lengyel 2022, 158, 32/12/15; Huszár 1979, 724, 733.

[108] Mihalik 1899, 34–41; Vattai 1953, 156.

[109] Kolba 1982, 302–303, Pl. 48/157; Lovag 1999, 102, 238, nos. 280 a–b.

from Našice presents a series of stylized characters (**M**, **S**, **A**, **D**). The presence of the histogram composed of lowercase letters ***y h s*** on the Bački Monoštor matrix[110] already signals a period of transition. The antependium from Cheb provides a relevant functional analogy for the use of individually cut capital letters.[111] The letter **S** stamped with a crown is found on a cloak from Halberstadt, along with square fittings bearing lowercase letters.[112] Typological and functional elements are also present on the antependium and cloak preserved at Sarnen (Pl. VI/3–4), which combine upper and lowercase letters, either as individual pieces or framed in circular plates.[113] In addition to these pieces, there is a series of oversized Renaissance letters, richly decorated and accompanied by various inscriptions, indicating a later date, namely at the beginning of the sixteenth century.[114] A remarkable collection of such pieces is preserved in the National Museum of Antiquities in Leiden (Pl. VI/1), where approximately 1,500 objects (individual or mounted on belts) are preserved, made of various copper-tin, brass, and bronze alloys. These come from metal detector surveys in the province of Zeeland and the Dordrecht region (Netherlands).[115] This series complements the findings from the archaeological excavations in London,[116] providing a valuable comparative framework for understanding the circulation and use of such pieces. Capital letters also appear in the treasure discovered in Colmar (France), hidden before 1348/49.[117]

The use of uppercase letters on belts or necklaces is also documented in fifteenth-century painting. A. Willemsen has identified relevant examples from some of the most important collections of medieval art. These include the belt inscribed with the name "Isus Maria," worn by Mary Magdalene in the painting *Deposition from the Cross* by Rogier van der Weyden (1399–1464), created before 1444 (Pl. VI/2),[118] Mary's belt decorated with capital letters in the painting *Virgo inter Virgines* (before 1489),[119] or the capital letters on Mary of Burgundy's necklace in her portrait.[120]

Capital letters were frequently used throughout the Middle Ages, the presence of uncial characters on the Tăuți matrix being a significant reference for its chronological classification. The transition from Gothic majuscule to minuscule in the medieval Kingdom of Hungary occurred between 1360 and 1380, the new form of writing becoming dominant

[110] Gubitza 1916, 207–208, Fig. 2.

[111] Tietz-Strödel1992,248–258;https://muzeumcheb.cz/historic-exhibition/#gallery/eb301a66372dd3f00b-26d6c83c64266d/248; https://medievalbeads.com/14th-c-antipenidum-cheb/, accessed 12 May 2025.

[112] https://medievalbeads.com/14th-century-christ-child-cloak-2/#gallery[photonic-wp-stream-1]/2760/, accessed 3 June 2025.

[113] Durrer 1899, 661–676, Fig. 411–413, Pl. XXIX–XXXIII.

[114] Durrer 1899, 662–676, Fig. 411–412, Pl. XXX–XXXIII.

[115] Willemsen et alii 2009, 67–93, Fig. 3; Willemsen 2012, 171–202, Fig. 2, 4, 6; https://artsandculture.google.com/asset/letterbeslag/DAFfgzuDlJsjQg?hl=nl, https://artsandculture.google.com/asset/beslagstukken/HAEIhswJhC5X2g?hl=nl, accessed 3 June 2025.

[116] Egan, Pritchard 1991, 202–203, Fig. 127/1095–1097.

[117] The treasure was discovered along with 467 coins, and the hiding of the pieces was linked to the plague epidemic of 1348/49 (Krabath et alii 2006, 39, 41, Fig. 21).

[118] Willemsen 2012, 196, Fig. 24; https://rkd.nl/images/218963, accessed 17 June 2025.

[119] Willemsen 2012, 194, Fig. 21, a, b; https://fine-arts-museum.be/nl/de-collectie/meester-van-de-lucialegende-virgo-inter-virgines-de-maagd-onder-de-maagden?artist=meester-van-de-lucialegende, accessed 17 June 2025.

[120] Willemsen 2012, 197–198, Fig. 25.

until the last quarter of the fifteenth century, when Renaissance uppercase letters began to prevail.[121] The earliest attestations of Gothic minuscule in Transylvania appear on religious objects, especially baptismal fonts and bronze-cast bells. An eloquent example is the cup-shaped baptismal font, dated 1404, from the Evangelical church in Alțina (Sibiu County),[122] on which minuscule characters appear for the first time. The phenomenon became more pronounced at the beginning of the fifteenth century, with the systematic appearance of Gothic minuscule letters on bell inscriptions.[123]

The opposite side of the Tăuți matrix, aside from the letter **W**, features seven more fittings of different shapes. We were unable to identify any similar pieces for the circular ornament decorated with swirl-shaped grooves. Simple circular variants without grooves appear on all the above-mentioned matrices from the former Hungarian Kingdom (Vršac, Bački Monoštor, Bečej, Našice, etc.), as well as on liturgical vestments and various secular accessories from the German area. Near the edge, there is a small circular ornament in negative, bordered by a simple line. This type of ornament appears frequently on the previously mentioned objects.

For the fragmentary motif, which has two lobes flanked by bosses and traces of possible later interventions, the lack of complete decoration considerably limits the possibility of reconstructing the original ornamental motif. In this area of the matrix, another rosette with four lobes and four bosses can be distinguished, albeit less visibly, in a more stylized version. Such lobed ornaments, characterized by varied and stylized decoration, are found on liturgical objects preserved in Western and Central Europe, such as those from Halberstadt,[124] Wienhausen,[125] Cheb,[126] and Gdańsk.[127] Circular ornaments with rosettes or five-petal flowers also appear on the textiles preserved in Sarnen[128] and Halberstadt,[129] while more stylized variants can be found on the antependium from Cheb or the amice from Gdańsk. Small fittings with six petals were also discovered in the Pritzwalk Hoard, hidden after 1392.[130] Variants of this motif, which can be dated to the first half of the fifteenth century, also appear in the decorative repertoire of the Sibiu workshop, known as the *Leonardus rosette*.[131]

[121] Durrer 1899, 673; Albu 2004, 122.

[122] Benkő 2002, 377–379, II. 1.

[123] Such characters can be found, for example, on the bell from 1411 of the parish church in Sibiu (Sibiu County; Benkő 2002, 322–323, I. 254; Albu 2004, 122), on the bell from 1417 from Cetatea de Baltă (Alba County; Benkő 2002, 293, I. 182), as well as on the bell from 1429 from Hașag (Sibiu County; Benkő 2002, 269, I. 121), etc.

[124] Braun 1907, 37; Benkő 2002, 176; https://medievalbeads.com/category/documentation/by-century/14c/, accessed 26 March 2025.

[125] https://www.bildindex.de/document/obj20017930?part=0&medium=fmlac7091_05, accessed 20 May 2025.

[126] Tietz-Strödel 1992, 248–258; https://muzeumcheb.cz/historic-exhibition/#gallery/eb301a66372dd3f00b-26d6c83c64266d/248, accessed 12 May 2025.

[127] Braun 1907, 34, 37, Fig. 3, 7.

[128] Durrer 1899, 661–676, Fig. 411–413, Pl. XXIX–XXXIII; Bárányné Oberschall 1939.

[129] Braun 1907, 37; Benkő 2002, 176; https://medievalbeads.com/category/documentation/by-century/14c/, accessed 26 March 2025.

[130] Krabath et alii 2006, 64–65, 123, Fig. 46–47/396.

[131] The *Leonardus* rosette appears on the baptismal font from Sibiu (Benkő 2002, 170–183, 402–407, II. 6, 436–437, III. 55), on the bell from Hașag, Sibiu County (Benkő 2002, 269, I. 121), at Mănărade, Alba County (Benkő 2002, 313, I. 230), at Târnăvioara, Sibiu County (Benkő 2002, 283, I. 159), etc.

Conclusions

The stylistic, typological, and functional analysis of the matrix with negative incised fitting patterns from Tăuți highlights a complex decorative composition. The ornamental repertoire, including stylized vegetal bands, rosettes, and Gothic characters, reveals a clear classification within the formal repertoire of Central European ecclesiastical art, with multiple analogies in Transylvania, Hungary, Germany, and neighboring regions. The diversity of decorative elements, together with the presence of Gothic capital letters, indicates a versatile functionality of the piece, which could be used to produce ornaments for liturgical purposes (manuscript covers, reliquaries, sacred textiles) or for secular accessories (decorative fittings for clothing, belts, diadems, etc.). The capital letters on the matrix have no meaning in their current form. If we assume that this item was part of a larger set of matrices that also contained other alphabetic letters, then it takes on a different character. Thus, we can think of its use for secular pieces, most likely for the population of Cluj and its surroundings. The appearance of such a piece in this area is not surprising if we consider other possible patrons: the episcopal court from Gilău and the episcopal domains around Cluj, the abbey from Cluj-Mănăștur, or the existence of the so-called "Girl's Castle" at Florești.

From a chronological point of view, the epigraphic analysis, especially the morphology of the capital letters **I**, **P**, and **W**, compared with the analogies identified on signet rings and coin mint-marks, supports the dating of the matrix to the period between the second half of the fourteenth century and the first half of the fifteenth century, with the possibility of subsequent reuse or additions. This chronological framework is reinforced by stylistic features specific to the transition from Gothic majuscules to minuscule letters.

Based on these observations, the matrix can be considered a valuable artifact for the study of the circulation of decorative shapes in the Middle Ages. Its value lies not only in the information provided on the goldsmithing techniques and artistic taste of the period, but also in its ability to reflect cultural interactions across large geographical areas. In this sense, the piece contributes significantly to expanding the body of material available for investigating ornamental typologies, as well as to refining the criteria for dating and functional attribution of similar objects.

The limited occurrence of these pieces in specialized literature indicates an acute need to reevaluate and revalue this type of object. The comparative study of the matrix from the MNIT collection, in correlation with other similar pieces, contributes to the reconstruction of a craft tradition with limited regional distribution but with significant cultural implications for understanding medieval goldsmithing. Therefore, the Tăuți matrix not only enriches the material repertoire of medieval Transylvanian art but also provides an essential starting point for further research on the circulation of decorative motifs and the transfer of technical knowledge between production centers in Central Europe. The investigation of matrices can help outline regional schools of goldsmithing, reconstruct patronage networks, and trace the circulation of luxury artifacts in ecclesiastical and secular contexts.

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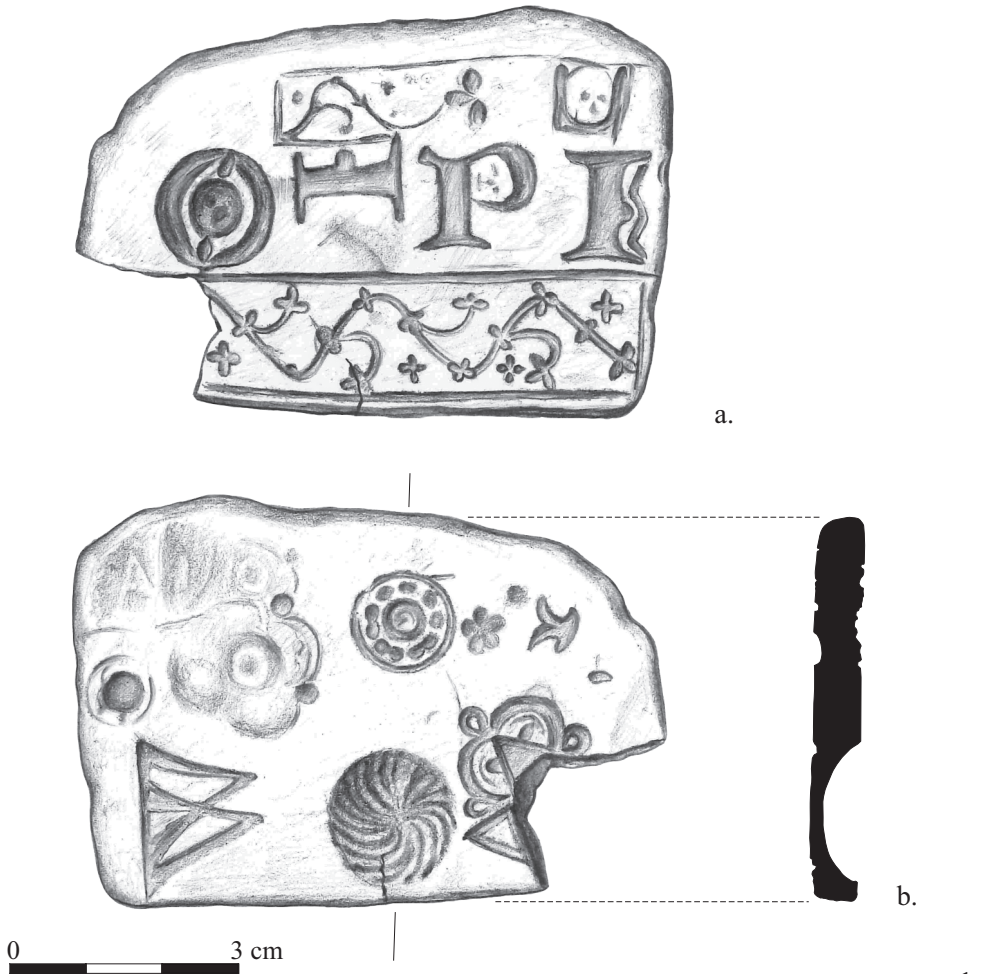
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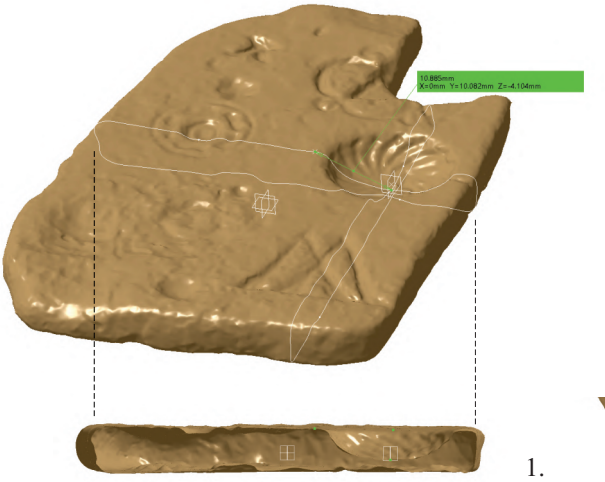


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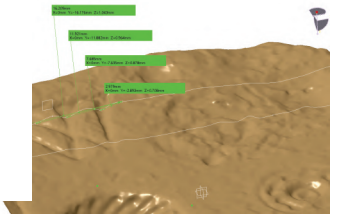


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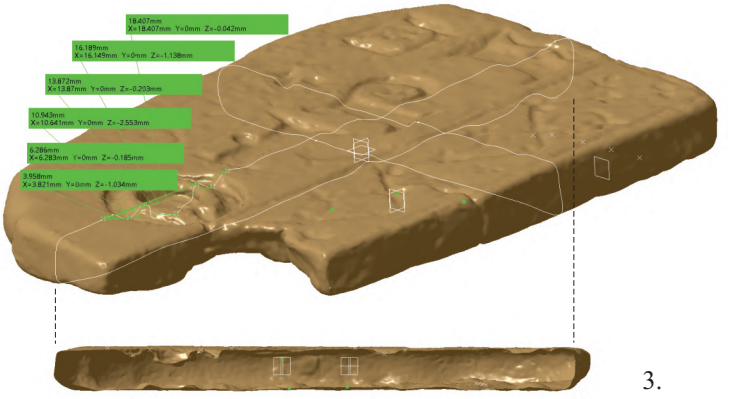
Pl. I. 1. Drawing of the Tăuți matrix (drawing by Anca-Dumitrița Bâlc); **2.** Photograph of the matrix (photo by Sergiu Odenie).



1.



2.



3.

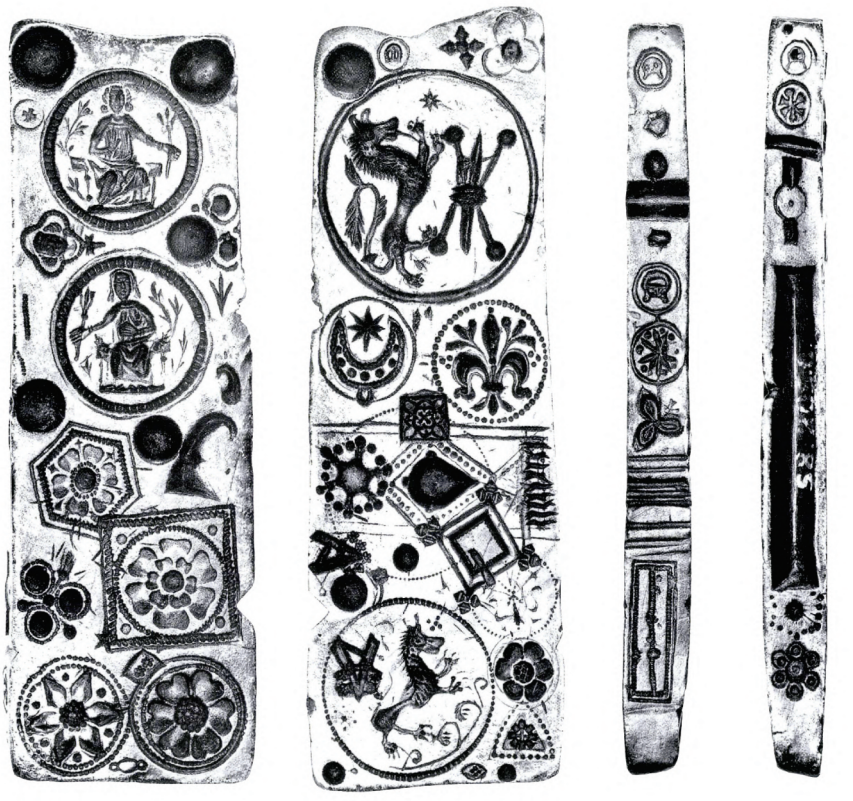


4.

Pl. II. 1–3. Negative depths measured after scanning and digitizing the piece; **4.** The two sides of the matrix scanned in 3D (made by Călin Neamțu).



1.

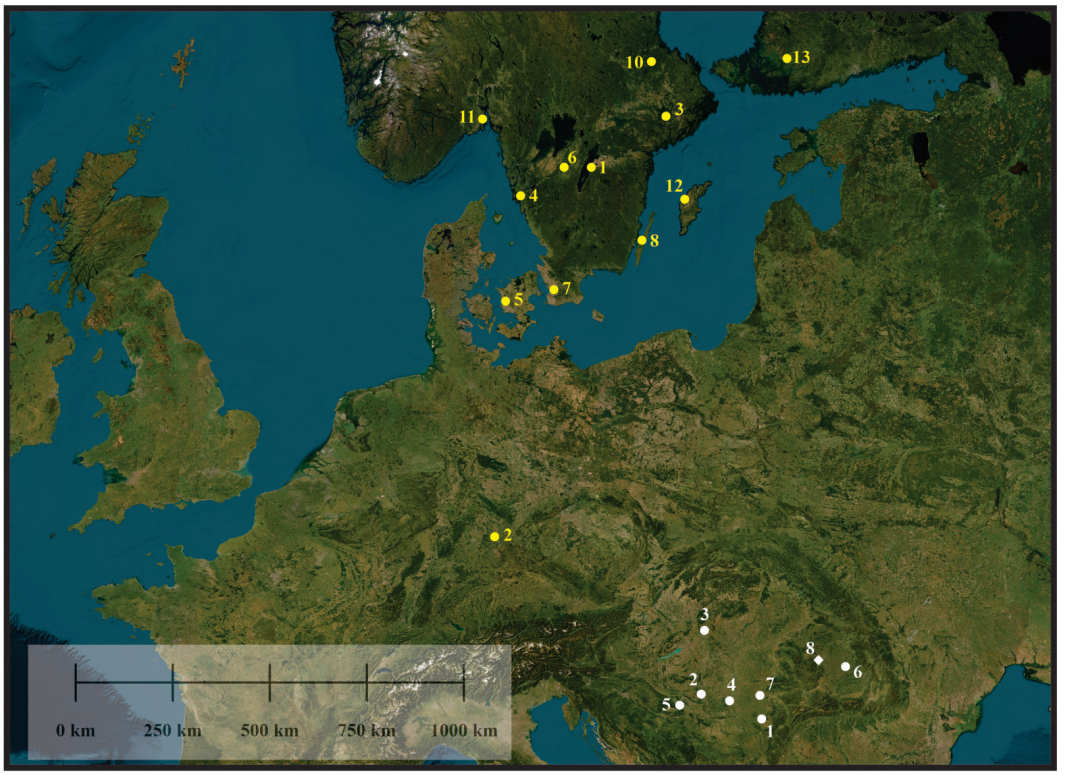


2.

Pl. III. 1. The Vršac matrix (Mihalik 1899, 35, 37, Fig. 1–2); **2.** The matrix from the Hungarian National Museum Collection (Lovag 1999, Fig. 280 a–d).



Pl. IV. The Bački Monoštor matrix (Gubitza 1916, 207–208, Fig. 1–2).



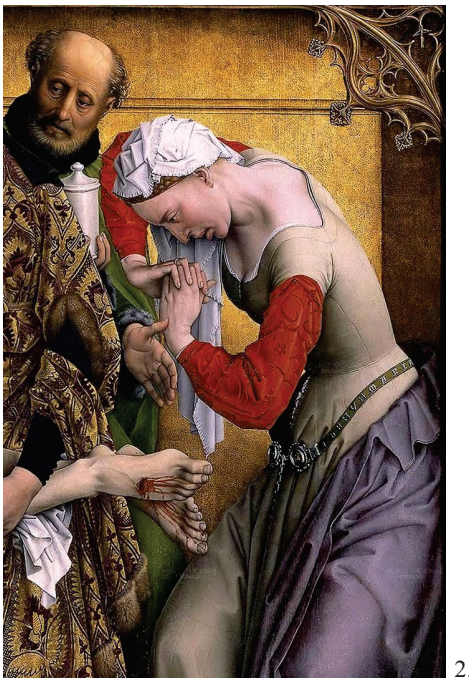
● 1. Alvastra, Tollstad (Sweden)
2. Bamberg (Germany)
3. Björkö Birka (Sweden)
4. Göteborg (Sweden)
5. Haverbjerg, Sealand (Denmark)
6. Hovslagaregarden, Broddertorps(Sweden)
7. Lund, Schonen (Sweden)
8. Öland (Sweden)
9. Starkenberg, Montfort (Germany)
10. Svarteby (Sweden)
11. Tönsberg (Norway)
12. Visby, Gotland (Sweden)(after Krabath 2001, Karte 65)
13. Turku (Finland)(after Immonen 2009, 73–74, Fig. 8 9; Immonen 2011, 212–213, Fig. 13).

○ 1. Vršac (Serbia)
2. Bački Monoštor (Serbia)
3. Budapesta (Hungary)
4. Bečej (Serbia)
5. Našice (Croatia)
6. Târgu Mureș (Romania)
7. Timișoara (Romania)
◊ 8. Tăuți, Cluj County (Romania)

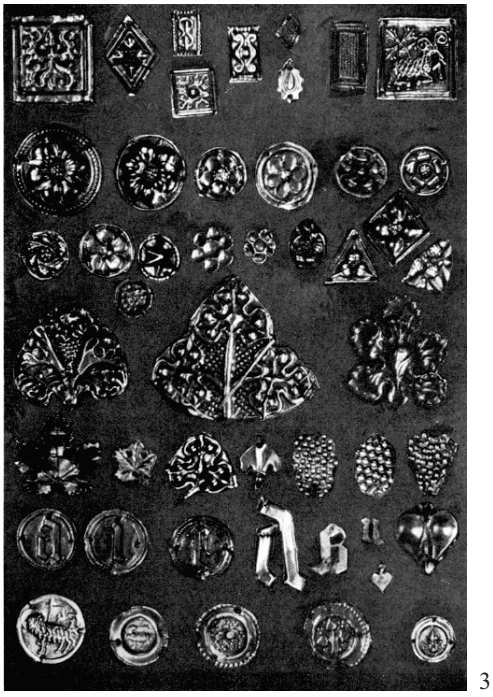
Pl. V. Map of the distribution of medieval matrices (created by Gruia Fazecaș).



1.



2.



3.



4.

Pl. VI. 1. Gothic letters from the exhibition of the National Museum of Antiquities, Leiden (Willemsen 2012, 178, Fig. 6); **2.** Detail of the belt inscribed with the name "Isus Maria" worn by Mary Magdalene in the painting *Deposition from the Cross* made before 1444 by Rogier van der Weyden (Willemsen 2012, 196, Fig. 24); **3–4.** Detail of the cloak from the Sarnen monastery (3. Durrer 1899, 665, Fig. 412; 4. "Sarnen Child" / Medieval Beads).

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FOUR LATE MEDIEVAL THIGH DEFENSES FOR HEAVY CAVALRY FROM THE NATIONAL MUSEUM OF TRANSYLVANIAN HISTORY

ANDREI PRIAN*

Abstract: Besides the armor worn by knights themselves or their proud destriers, other, less notable defensive elements sometimes complemented the entire system of a late medieval mounted man-at-arms' plate equipment. Four thigh defense pieces are currently housed in the collection of the National Museum of Transylvanian History, shrouded in mystery, as the category to which they belong has been scarcely investigated within the Romanian scientific milieu. This is explainable by the rarity of such pieces, both in museums and in the region's military history.

This article aims to outline their role and function, as well as to place them into their rightful historical and cultural context. Some considerations regarding their medieval authenticity, place of origin, and possible dating are made, based on their close analysis and comparison with visual and extant analogies alike, also exploring the possibility of their historical connection to Transylvania, or the broader area of the Kingdom of Hungary, within the limits set by the available written sources.

Keywords: thigh defenses, *Streiftartschen*, late medieval armor, equestrian equipment, tournament

Rezumat: În afară de armura purtată pe propriul corp sau de către caii lor, au existat și alte tipuri de piese defensive, mai puțin cunoscute, care completau ocazional întregul sistem al echipamentului din plăci al cavalerilor Evului Mediu Târziu. Patru obiecte, reprezentând protecții pentru coapsă, se află în prezent în patrimoniul Muzeului Național de Istorie a Transilvaniei, învăluite în mister, deoarece categoria de armament pe care o reprezintă a rămas prea puțin investigată în mediul de specialitate din România. Situația se datorează și raritățiiacestui tip de piese, atât în colecții muzeale, cât și în istoria militară a regiunii.

Scopul acestui articol este de a contura rolul și funcționalitatea lor și de a le plasa în binemeritatul context istoric și cultural al cărui produs sunt. Sunt enunțate câteva considerații privind autenticitatea lor medievală, arealul lor de manufactură și probabila lor datare, pe baza analizei minuțioase a acestora și prin analogie atât cu surse vizuale, cât și cu alte asemenea obiecte deja cunoscute, din diverse colecții ale lumii. Totodată, a fost explorată și posibilitatea conexiunii lor istorice cu Transilvania, ori cu arealul mai larg al Regatului Ungariei, în limitele impuse de izvoarele scrise disponibile.

Cuvinte cheie: protecții pentru coapsă, *Streiftartschen,* armură medievală târzie, echipament ecvestru, turnir

Introduction

While reviewing late medieval arms and armor pieces from the collection of the National Museum of Transylvanian History (NMTH), we recognized four objects,[1] closely related to heavy cavalry and the chivalric culture of Central Europe, and belonging to

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[1] Colecția MNIT, nos. F 7776, F 7777, F 7803, and F 7812.

the peculiar category of suspended thigh defenses commonly referred to in German as *Streiftartschen*. The unique character of this category of plate elements is that, though part of the interdependent protection system of an armored heavy rider, they do not directly belong to the knight's harness, nor the barding of the horse.

With no available information about their provenance, their earliest certain appearance in the museum's inventory register is sometime between December 1974 and December 1975. The curator who authored the register entries must have intuited their belonging to the broad area of equestrian equipment, considering them to be "defenses for the horse's belly."[2] That is, of course, quite strained and improbable, from the points of view of late medieval armor studies, the basics of riding, and horse anatomy alike,[3] but their suggested dating to the fifteenth-sixteenth centuries was correct, as will be shown further on. This type of protection elements, usually suspended from the saddle, is currently unknown to contemporary Romanian scholarship, as our enquiries so far couldn't lead to any published materials on similar pieces. Though well-understood by Western academia, it rarely made the subject of dedicated studies,[4] being usually enumerated among other elements of equipment, mainly in the context of tournament arms and armor.[5] *Streiftartschen* are common in iconography, especially in illustrations from German tournament books created in the late fifteenth and early sixteenth centuries, but overall, they can also be found in different sources and contexts. An uncertain number of extant pieces, relatively small in comparison to that of other types of defenses, exist within various museum inventories, and then there is the category of the select few, notorious ones, some of them even still carrying the marks of famous armorers.

This article aims to shed light on the use and functionality of these four items and the category they belong to, together with the chronological time frame to which they can be attributed. In addition, due to the lack of information about their history, prior to being acquired by the museum, it is necessary to raise a set of questions.

First, there is the matter of their historical authenticity. Given that armor parts and sets made for mere display in the modern era are so common, a close and thorough analysis is required in order to determine whether they are likely or not to be original, late-medieval armor elements. The analysis can be based on the observation of their overall shaping, the characteristics of the metal sheet used, the technology employed in creating them, and, finally, checking if the ensemble would have been fit for the intended use. The comparison with known extant analogies and iconographic or written sources will also prove to be of great help.

Second, there are the natural questions regarding their origin. Can we place them within a specific area of production? Are there any reasonable arguments to believe

[2] I. e., *Apărătoare de pântec de cal*.

[3] An interesting depiction of Maximilian I entering Luxemburg in 1480, now lost but surviving through sixteenth-century reiterations (II. Thun sketchbook, 1532–1550, and a similar illustration from Augsburg, 1575), shows him on a horse clad in an allegedly real bard, made by Lorenz Helmschmidt, which not only covers the belly of the mount, but also its legs. However, the articulated abdominal lames of that armor are shown to closely respect the anatomy of the horse, and bear no resemblance to the objects of this study. See: Breiding 2012, 54; Terjanian 2013, 307–308.

[4] See Retsch 2023.

[5] Terjanian 2013, 380; Williams et alii 2012, 172–175; Breiding 2012, 62; Breiding 2019, 75, etc.

they could have been crafted in Transylvania, or the broader territory of the Kingdom of Hungary?

Finally, there is one recurrent question regarding most of the military equipment of unknown provenance from the NMTH collection, as the acquisition of these particular objects is generally dated during a period of antiquarianism, preceding modern historical science and museology: are they in any way connected to the history of the region, or are they, instead, wandering objects that have switched owners and passed through private collections before entering their current one? The large number of Western, Oriental, and items from various other parts of the world, present in the NMTH collection, as well as the European arms and armor found in American museums, can stand as relevant examples in this matter. The absence of complex data leaves space for historical reasoning and a certain amount of speculation, which could be worth exploring nonetheless, even with the risk of a little divagation.

Streiftartschen and *Dilgen*: specialized thigh defenses for the joust?

In the fifteenth century, a new type of protective elements started emerging in period imagery: a sort of elliptical shields, worn in pairs, which cover the thighs and knees of the heavy riders, in addition to the *cuisse* and *poleyn*.[6]

Two valuable, Bohemian pieces, one sold in Paris and the other found in Opočno Castle (Czech Republic), datable around 1430–1440 and possibly belonging to the same pair, suggest that, in the beginning, these objects may have been usually made of leather (either rawhide, or *cuir boulli*), and reinforced with iron bands on the inside.[7] Some murals like the ones in Bodešče and Mače (Slovenia), together with images from Paulus Kal's fighting manual,[8] show the very same style, between the 1450s and 1473. Later examples are made of iron or steel plate, most often fluted.[9]

Some clarifications are in order regarding the terminology used when referring to them.

They seem to be most present in German-speaking lands, and have been more often mentioned in the literature of the same language, hence the common use of the German terms that describe them. In the few English-language studies in which they appear, they are referred to as "defense for the thigh; to be worn in the *Rennen*,[10] attached to the saddle,"[11] "thigh defense for the joust of war,"[12] or "tilting socket for the German course."[13] However, these terms may strike some as being too generic and ambiguous, as other armor elements, such as cuisses, *tassets*,[14] or even the enlarged pommels of specific saddles, play the same part: that of protecting the thigh. More so, it is now known that such defenses have also

[6] Parts of the upper leg harness, protecting the thigh and the knee of the wearer.

[7] Retsch 2023, 66–68.

[8] Retsch 2023, 62–65, fig. 4, 6, 7.

[9] See Tab. 1

[10] Capwell 2018, 84: "Rennen, meaning literally 'running' or 'race.'" It is the consecrated German term for a certain category of "jousts of war," and is probably to be interpreted as "competition" or "contest of arms."

[11] Williams et alii 2012, 173.

[12] Breiding 2019, 75, fig. 8.

[13] Trapp, Scalini 1996, 104.

[14] Armour elements consisting of one plate, or more articulated plates, usually strapped to the fauld of the cuirass and, often conjointly with the skirt of maille, overlapping the top of the cuisse, to protect the upper thigh.

been depicted in contexts entirely unrelated to jousting, like the aforementioned Slovenian frescoes, or unequivocal battle scenes, such as an ink drawing from the Morgan Library and Museum in New York[15] and the ones figured on the Babenberger Family Tree triptych of Klosterneuburg, Austria.[16]

Nevertheless, we can recognize a distinct category of secondary thigh defenses, for equestrian use, usually hung from the saddle, which may deserve a name of its own, with such an existing proposition having chances to prove fitting.[17] It can be further divided into the subcategories commonly known as *Streiftartschen* (more shield-like in appearance, usually resembling a seashell) and *Dilgen* (shaped to imitate, to various degrees, the anatomy of the human thigh and knee).[18] The latter are better suited by the term used by Trapp and Scalini, but some socket-like shapes can sometimes be seen on *Streiftartschen* too.

What is the key feature that distinguishes *Dilgen* from *Streiftartschen*, in modern convention? This could be a topic for debate, preceding the outlining of a unified, international terminology. Could it be the simple existence of a socket to accommodate the rider's leg? Or would the anatomical shaping of that socket be the main criterion? One of the objects of this study[19] features a pronounced, semi-cylindrical socket shape on its vertical axis, without it being anatomically constructed,[20] as will be shown in the technical description chapter of the article.

Natalie Margaret Anderson provided an explanatory distinction between the two subcategories, in the glossary of her doctoral dissertation: "*Streiftartsche* – Armour to protect a knight's upper legs, similar in form and function to *Dilgen* but broader and shallower in depth."[21] Nevertheless, a series of transitional forms between the two definitions can be found by looking at both art and extant material.

The *Streiftarsche*[22] term itself may draw its etymology from the verb *streifen,* understood as "to brush (past something)" and the noun *Tartsche*, meaning "targe" or "shield." Thus, it suggests that the object was meant to protect from scraping against an opposing rider, or perhaps other terrain features, if used in the turmoil of battle. The term *Dilge* (pl. *Dilgen*) has uncertain origins, but it may have the meaning of "thigh defense," so, overall, while referring to slightly different aspects, both seem to denominate the same primary function: that of providing additional protection to the upper leg, while exposed to scraping against someone or something.[23] These terms, sometimes conventionally differentiated in modern use for scholarly classification purposes, may very well have been overlapping in medieval German idioms. Some present-day researchers could justifiably see them as interchangeable.[24] And, of course, one may wonder if such protective elements

[15] Retsch 2023, 66, fig. 8.

[16] "Babenberger Stammbaum"/ WikiCom, multiple battle scenes depicting Leopold I, Adalbert of Austria, Leopold II, Friedrich II, etc.

[17] See the "swipe-guards" term, on the following page, and reference no. 25.

[18] KHM, no. R II; KHM, no. R V; Haenel 1910, [45]–5v.

[19] Colecția MNIT, no. F 7776.

[20] See a very similar construction in BSB, Cgm. 1930, fol. 19v, on the right side of the image.

[21] Anderson 2017, 267.

[22] Singular form of the word *Streiftartschen*.

[23] I thank Mr. Peter Spätling for helping me understand the connotations of these historical German terms.

[24] KHM, no. A60 a: The *Streiftartsche* denomination applied to an anatomically constructed thigh defense.

can be called "shields" at all, according to modern conceptions.[25] On this note, the term "**swipe-guards**," used by Peter Finer Gallery to describe an item on their sales list,[26] seems to me fit to cover the entire category of suspended thigh defenses, including both *Streiftartschen* and *Dilgen*, and I will also use it, in an attempt to avoid the unnecessary repetition of the German words.

Chronologically, the elliptical or shell-shaped *Streiftartschen* appear first, in the second quarter of the fifteenth century, but there is a certain overlap in the use of the two types, towards the end of the fifteenth century and the beginning of the subsequent one,[27] with *Dilgen* outliving the former by some decades.

It is worth mentioning that the type we commonly refer to as *Streiftartschen* appears depicted in contemporary visual sources in both jousting and warring situations, often as an additional layer to the leg harness, although in the later period of their use they are shown as stand-alone protections for the legs. The more anatomical *Dilgen* seem to have mainly played a part in tournaments of the *Rennen* type, starting with the late fifteenth century, and acting as the main defense for the upper legs of the rider, usually in the absence of other leg armor elements.

Regarding the exact suspension methods of the *Streiftartschen*, visual sources are somewhat ambiguous, and written ones are nonexistent, to our knowledge. Some tournament book illustrations[28] show them in a relatively horizontal and lateral position, suggesting (if we are to credit the depictions with accuracy) a way of strapping them to both the pommel and the cantle of the saddle, which would encompass the rider's thighs, thus fixing him into the saddle. However, the same category of sources often depicts riders knocked off horseback, while the *Streiftartschen* remain in place,[29] which would contradict the first variant.

As for now, the commonly accepted point of view is that they were strapped to, or looped through, a leather band fitted around the "horn" on the saddle's pommel, but a truly detailed and relevant understanding of these swipe-guards' suspension could only be achievable by carefully reconstructing complete sets of compatible armors, saddles, and *Streiftartschen*, and testing out various theories. Such an attempt was made[30] by reconstructing a pair based on the B11 item from the Kunsthistorisches Museum in Vienna,[31] and used in the *Rennen* held every four years during the Landshutter Hochzeit.[32] Unfortunately, the reconstruction was incomplete, since the saddles in use were modern, so the experimental relevance of the *Streiftartschen*'s suspension to the pommel is limited. Their positioning turned out much more front-shifted than period visual sources suggest.

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[25] Breiding 2019, 75.

[26] Peter Finer, no. 5085.

[27] A good example of the two types being depicted in simultaneous use can be found in BSB, Cgm. 1930, 14v.

[28] Andreson 2017, 262, fig.34 could serve as an example. Another one in BSB, Cgm. 1930, 12v.

[29] BSB, Cgm. 1930, fol. 19v.

[30] Crafted by Peter Müller of *Die Plattnerwerkstatt* armory. See Müller et alii 2018, 171–180

[31] KHM, no. B11.

[32] BR 24.

The subcategory of *Dilgen* is always quite clearly depicted as hanging only from the saddle's pommel, and, as can be seen in some instances[33], strapped to one another and sliding off-position, blown away by the shock of the couched lance that unhorsed the knight.

A very interesting visual source is provided by some battle scenes from the Babenberger Family Tree triptych,[34] painted between 1489 and 1492, and preserved at the Klosterneuburg Abbey in Lower Austria, where fully-armored men-at-arms employ *Streiftartschen* very similar to a pair from the NMTH collection,[35] strapped directly to the fauld of the cuirass, over the tassets, or completely replacing them (Fig. 1). This sheds light on two important aspects: first, it proves, among other depictions, that to the artists and public of the age, *Streiftartschen* were not exclusively part of the tournament paraphernalia, but had instead their accepted place in the imagery of warfare. Second, such a suspension system bears a certain degree of credibility, since it seems a practical choice over the attachment of said thigh defenses to the *arçons*[36] and trapping the rider inside the saddle. Offering enhanced thigh coverage compared to just tassets, yet functioning like a pair of additional ones, this way of employing *Streiftartschen* deserves our attention, further detailing the way we see this category of defensive equipment.

In all the depictions related to military use, they appear exclusively in conjunction with low, "trestle-saddles" (*Bocksätteln*) or transitional types. Presumably, the more enclosed "crib-saddles" would have allowed insufficient space for their use, or maybe their enlarged, protective pommel boards rendered swipe-guards unnecessary.[37]

Overall, we can safely conclude that swipe-guards were created, perhaps as early as the first quarter of the fifteenth century, in their incipient *Streiftartschen* form, as armor elements intended for military use. Even though in later periods they became highly associated with certain types of jousting, we have strong reasons to believe that their use was not limited to such chivalric festivities, as very well illustrated by early sixteenth-century iconography.[38] We can also presume that different ways of fastening them to the saddles or armor were common, depending on the circumstances of their use.

Swipe-guards as jousting equipment

On the other hand, *Streiftartschen* and *Dilgen* are best known from tournament books,[39] especially from the age of Maximilian I's reign, associated with various forms of *Rennen*,[40] which were highly popularized by the knight-emperor and fashioned as true theatrical spectacles, without making them any less dangerous.[41] Therefore, we see it fit

[33] Haenel 1910, [152]–59r.

[34] "Babenberger Stammbaum"/ WikiCom, battle scene depicting Margrave Leopold I the Illustrious against the Magyars; Adalbert the Devout against King Béla II of Hungary; Adalbert of Austria defeating the Hungarians in front of Melk; Duke Leopold II in the battle of Mailberg; Duke Friedrich II.

[35] Colecția MNIT, no. F 7777 and F 7803.

[36] The bows of the saddle. See Prian 2024, 51–52.

[37] About fifteenth- and early sixteenth-century saddle types used in Central Europe: Prian 2024, 46; Somogyvári 2017, 5–8.

[38] Retsch 2023, 66, fig. 8.

[39] Krause 2017, 181–183.

[40] Anderson 2017, 131–144.

[41] Anderson 2017, 131–132.

to briefly explain the emergence and bloom of the *Rennen*, for better contextualising a significant field in which the objects of this article may have been used.

The archaic medieval tournament[42] of the eleventh and twelfth centuries usually involved massive military and horsemanship displays carried out by large groups of knights as "mock battles." These eventually evolved into the proper *tourney* or *buhurt*,[43] in which blunt swords or bludgeons[44] were used, and are of no direct interest to this study.

In the Late Middle Ages, we can also witness the appearance of one-on-one mounted confrontations with lances (the joust), which became the most widespread image of medieval tournaments in modern collective understanding. These could be carried out either as "jousts of peace" (with highly protective, dedicated armor, *coronel*[45]-tipped lances, and, by the fifteenth century, already employing tilting barriers to separate the riders, in most of Western Europe), or as "jousts of war" (using field armor and sharp lances).[46]

The "joust of war" may have begun as chivalrous meetings between enemies,[47] before eventually turning into the most perilous, and possibly deadly,[48] cordial "sport" of the late medieval times. However, at least in the later age of the phenomenon, "wounding or killing one's opponent was not necessarily the express goal,"[49] but they were simply part of the risk knights undertook when participating.

In German-speaking lands, besides the "*Turnier*," by which we generally understand the "tourney", the two types of lance play[50] also separated and evolved on different paths, carrying their particular nuances, even though they often found place within the same series of festivities.

As the Early New High German speakers of the fifteenth century started developing their own complex vocabulary for tournament culture,[51] the "joust of peace" became known as *Gestech*,[52] while the "joust of war", which had its origin in the *ze ernste* ("for real") knightly duels, later influenced the jousting type commonly referred to as *Rennen*.[53] At this point, the latter must not be equated anymore with the English concept of "joust of war," but understood as a distinct German tournament custom.[54] Furthermore, these should rather be seen as broad terms, each encompassing a larger number of particular styles of joust.[55] They also describe an already uniquely German entity, distinguishable from the

[42] From Lat. *tornare* ("to turn").

[43] Breiding 2012, 58.

[44] Hence the emergence of the so-called *Kolbenturnier* in German-speaking regions.

[45] A small, crown-shaped metal element fitted to the tip of the jousting lance, instead of the sharp head used in war. It had the purpose of gripping onto the shield of the opponent, thus facilitating the breakage of the lance. See Capwell 2018, 26–27.

[46] Breiding 2012, 58.

[47] Capwell 2018, 57.

[48] Capwell 2018, 62.

[49] Capwell 2018, 61.

[50] Lat. *hastiludium*, Ger. *Lanzenspiel*, commonly used when referring to the joust.

[51] Anderson 2017, 109.

[52] From Ger. *sctechen* ("to thrust").

[53] Ger. *rennen*. Breiding 2012, 60.

[54] Williams et alii 2012, 140.

[55] Anderson 2017, 109.

classic Western-European forms, which has raised difficulties regarding the translation of its vocabulary into English.[56]

In the second quarter of the fifteenth century, when indicated by the earliest sources, the *Rennen* described by Ludwig von Eyb[57] seemed more similar to a "joust of war," and the same is suggested by the illustrations from the Wolfegg Housebook (1480), as field armor, in different, more or less complete configurations, is depicted to be worn.[58]

However, by the time of Emperor Maximilian I, who was a dedicated sponsor of tournaments (in which he often took part),[59] *Rennen* was already the most popular form of jousting at his court,[60] featuring numerous subgenres and requiring various types of highly specialized equipment.[61] Though very different from the armor worn in the *Gestech*, it had, at this point, little in common with the actual field harness, and was more oriented towards adding elements of spectacle to the joust (going as far as employing mechanical, break-away protective parts, in certain styles of *Rennen*, or renouncing to some defenses, in given cases, to increase peril and enhance public entertainment). Nevertheless, *Rennen* remained far more hazardous than its counterpart, the *Gestech*.[62]

In addition to other dedicated armor elements, a special variant of the sallet (*Schaller*) war helmet was also introduced to the *Rennen*, thickened and sometimes equipped with spring-activated break-away plates on the forehead. This kind of helmet was usually referred to as *Rennhut*.[63]

One more notable aspect is that, while the primary aim of the *Gestech* was to break lances on the opponent's targe,[64] the unhorsing of the adversary was an important element of the *Rennen*.[65]

Another noticeable feature of the *Rennen*, which it retained in most cases from its initial development from the "joust of war" until its eventual twilight, was the "free riding," in the absence of the separating barrier that became characteristic of the *Gestech* after c.1500. In this context, we find **swipe-guards** as part of the standardized equipment for specific variants of Maximilian-era *Rennen*, with the purpose of mitigating the risk of the two charging knights locking knees while riding past each other. Such are the styles mentioned in period sources as *Schweifrennen* or *Scharfrennen* (probably the most popular at Maximilian's court), *Bundrennen*, and *Wulstrennen*.[66]

High-quality specialized armor for war and tournaments alike was produced in the renowned South-German centers, such as Augsburg (where the famous Helmschmidt family was active), Landshut, Nuremberg, and Innsbruck.[67]

[56] Anderson 2017, 106–107.

[57] Breiding 2012, 60.

[58] Capwell 2018, 84–87.

[59] For how Maximilian I used tournaments as an instrument for propaganda and politics, see: Breiding 2012; Andreson 2017.

[60] Anderson 2017, 133.

[61] Breiding 2012, 62–63.

[62] Anderson 2017, 132.

[63] Williams et alii 2012, 140.

[64] Relatively small, usually concave shield from the Late Middle Ages. Most often seen in use by heavy cavalry, but sometimes in infantry-related military contexts.

[65] Anderson 2017, 111.

[66] Anderson 2017, 135–139.

[67] Andreson 2017, 149.

Swipe-guards are listed in the 1519 inventory of the Augsburg armor house, as tournament-related and equestrian armor items, their two subtypes happening to be textually differentiated, as follows:

> Item zehen bar **straiftartschen** (ten undecorated Streiftartschen)
> Item zehen **straiftartschen** (ten Streiftartschen)
> Item ain sattel mit schwarzen **diehling** […] (a saddle with black Dilgen)
> Item zwen sättel mit bolierten **straiftartschen** und ain mit schwarzen **straiftartschen** (two saddles with polished Streiftartschen and one with black Streiftartschen).[68]

Just like in the context of warfare, swipe-guards used in the *Rennen* only appear depicted in circumstances or types of joust that required saddles with relatively low bows, usually featuring a horn-like protuberance on the front *arçon*, to which they are looped or swung over. The absence of the encompassing cantle may be justified by the aim to facilitate unhorsing.

As mentioned before, *Streiftartschen* appear to go out of fashion in the first quarter of the sixteenth century, while *Dilgen* remain visually present in tournament books until after 1550.[69] They are still depicted in the context of the *Scharfrennen* between Archduke Ferdinand of Austria and Elector August of Saxony in 1556,[70] but are absent from the *Turnierbuch* of the same Archduke Ferdinand in 1557.[71] These sources do not, by any means, set any irrefutable chronological limits, but rather serve as illustrative examples for a generic timeframe in which we can envision the customary use of this category of objects.

The NMTH swipe-guards: a technical description

Before diving into the description of the four swipe-guards from the NMTH collection, a set of limitations to this study is required.

As previously mentioned, they can be first found in the museum's inventory register written between 1974 and 1975. No information about their history or previous ownership is available, and there is a possibility that they have already been part of the collection for some time, by the mid-1970s. Furthermore, as they were misidentified from the beginning, there was no recorded attempt to outline their possible place of production or stylistic analogies. None of the four objects carries any distinguishable workshop marks.

Given that they have passed, at some point, through a process of restoration employing the methods of the time, no traces of lining fibers, pigments, or other possible organic remains can be currently recovered from their inner or outer surface.

In addition, metallographic investigations were not possible at the moment, so the following analysis and suggested interpretation are strictly based on the close observation

[68] I have extracted the relevant entries from Anderson 2017, 161–165, tab. 4–5. The translations belong to the author. However, *bar* can be read as *paar*, meaning "pair;" *diehling* could also be translated as "cuisses," or a larger category of thigh defenses, but in association with the saddle, understanding it as referring to the swipe-guard type known as *Dilgen* is the safest course.

[69] Krause 2017, 191, fig. 14.

[70] SLUB, Mscr.Dresd.J.14, 34.

[71] KHM, Kunstkammer, no. 5134.

of their appearance and construction, completed by metrical data and their comparison to known originals from other collections.

Items **F 7777** and **F 7803** (Fig. 2) are two *Streiftartschen*, and they seemingly belong together, as a pair. They are almost identical in size and proportions. They are constructed from two plates each, overlapping horizontally, in the middle area, with the top plate riveted over the bottom one. The lower edges of the top plates are decoratively cut in a scalloped pattern of subsequent arches, often found in late fifteenth-century armor aesthetics. They both feature a semicircular, concave "bouche" at the top, rolled at the edge, to accommodate the rider's thigh, flanked on both sides by the attachment places of the straps.

They are shaped in a rounded, convex manner, resembling a seashell, appearance augmented by the fluting on each of them.

They are fluted in an identical pattern, with a recessed area at the top, in a shape resembling a bow tie, followed by a set of seven vertical, slightly radial ridges that continue on both constituent plates, and seven ridges fanning out from the center towards the edges, on each side (three on the top plate, and four on the bottom one). As observable based on the marks left on the inside (Fig. 3), the fluting was done with a rounded chisel, and smoothly finished on the outer side.

Both objects feature a series of punched-out holes following the edge line, meant to secure the inner lining, which could have had fringed margins, as mirrored by visual sources.[72]

The presence of multiple offset orifices on the top edge, unrelated to the trajectory described by those for the lining attachment, may suggest that the riveting points of the straps have been changed over time.

As both pieces are quite symmetrically constructed, we can only speculate a right-left differentiation, based on a very slight noticeable offset of the vertical fluting, from the middle axis towards the front, without being sure this was, in fact, the case. Thus, F 7777 may be the right *Streiftartsche* of the pair, and F 7803 the left one.

F 7777 is 44.5 cm tall and 44.5 cm wide, with a central, maximum depth of 10 cm. It weighs 1618 g.

The *bouche* is 20 cm wide and 4 cm deep, its edge being rolled to a maximum thickness of 7 mm. Around the edges, there are 50 orifices for attaching the liner. The upper plate is 20 cm in height, measured from the central axis of the *bouche*, and overlaps the bottom one by approximately 1.7 cm. Eight rivets attach the two plates. In the top area of the *Streiftartsche*, a floral-headed rivet can be seen, comparable to those in use towards the end of the fifteenth century[73] (Fig. 4).

The edge thickness varies between 0.78 mm and 1.23 mm.

At some point, modern straps and buckles were attached to the object, using modern rivets and washers, probably for display purposes (Fig. 5).

F 7803 is 44.5 cm tall and 45 cm wide, with a depth of 9 cm.[74] Its weight is 1538 g.

[72] "Babenberger Stammbaum"/ WikiCom, all the aforementioned battle scenes; Anderson 2017, 258, fig. 27.

[73] Rusu 2019, 554.

[74] The related width-depth difference, compared to F 7777, may suggest that the plates of the two objects were cut using the same pattern.

The *bouche* is 20.7 cm wide and 4 cm deep, with its edge rolled to a thickness of 1 cm. Following the edge line, there are 46 orifices for the liner. The upper plate has a height of 20.5 cm measured from the center of the edge of the *bouche*, and overlaps the bottom plate by around 2 cm. The same number of eight rivets was used to fix them together. Both extremities of the overlap have been re-riveted, using modern rivets. The one on the left has been reinforced with a small piece of cut-out iron sheet, used as a washer (Fig. 6).

The thickness of the edges varies between 0.88 mm and 1.51 mm.

In the bottom-right area of the object, there is a hole produced by corrosion, approximately 8 cm from the edge. Due to active oxide being present on its surface, restoration is advisable.[75]

F 7776 is a piece that illustrates the transitional types between *Streiftartschen* and the deeper *Dilgen*, featuring a pronounced, non-anatomically shaped, vertical and semi-cylindrical socket for the rider's thigh, along the central axis (Fig. 7).

It is thicker and heavier than the previous pair, weighing 2154 g, with the slightly varying edge thickness of around 1.5 mm and the maximum thickness of the central area of 2.75 mm.

It is 41 cm tall and 42.5 cm wide.

The object can be divided into three constituent elements: the central socket, 16.5 cm wide, with the upper depth of 10 cm and the lower depth of 5.6 cm; and two semi-elliptical "side wings," both having the maximum width of 12.5 cm.

The fluting on the socket features two shallow, longitudinal recesses on the sides, and thirteen diagonal ridges, inclined at around 45º compared to the central axis. The fluting was made with a narrower chisel (Fig.8), and has a smooth outer finish.

The eccentric pattern of the hammer marks visible on the inside of the swipe-guard suggests that it was forged from a thicker sheet, stretched out towards the edges (Fig. 9).

Around the margins, 62 orifices for the lining attachment are visible, as well as two large original rivets on the upper end of the socket, which used to secure the suspension straps.

In the proximity of the bottom edge, the object shows a crack that has been filled in during restoration.

F 7812 is a left *Streiftartsche*, without fluting (Fig. 10a).

It is 46.5 cm tall and 44.5 cm wide, with a maximum depth of 9 cm.

It is constructed from two plates, the upper one being narrow (8.4 cm on the middle axis), with a scalloped edge. It is attached to the main, lower plate by 10 modern-looking rivets, overlapping it by a little less than 1 cm. Both plates are made of even, 1 mm-thick iron sheet, which bears the general aspect of modern production. The lower plate has an arched profile, with a bent vertical ridge, and a wrinkle made when fitting it to the upper one. It shows very shallow hammer marks on the inside (Fig. 10b). Its edges, though not affected by any corrosion, are unevenly cut, unlike other known originals.

This swipe-guard also has a *bouche*, 20 cm wide, 3.5 cm deep, and with a rather crudely rolled edge, 1.5 cm thick. The rivet holes for the straps were initially disposed in pairs. Then

[75] The noticeable difference in the surface patina between objects no. F 7777 and F 7803 is due to the fact that the former has gone through restoration, while the latter has not.

new (now missing) straps must have been added, using single rivets, both modern; the front one was secured with a washer made from a hexagonal piece of 1 mm-thick iron sheet.

The orifices for the lining are disposed in 36 pairs.

The total weight of the object is 1398 g.

Comparison to known visual and extant analogies, and considerations on the matter of the four objects' authenticity

For a brief comparison, some relevant visual sources will be put in relation to the swipe-guards from the NMTH collection. In addition, we have selected a few well-known originals as the closest extant analogies to the objects of the present study, which will be further compared to the latter in terms of aesthetics, chronology, and publicly available metric measurements, in Table 1.

Items **F 7777** and **F 7803** belong, in broad stylistic terms, to the category of *Streiftartschen* most often illustrated by period depictions, dated between the late 1480s and the early sixteenth century (Fig. 11). Such are the battle scenes from the Babenberger Family Tree (1489–1492),[76] numerous depictions from various tournament books,[77] and other sources.[78]

The most relevant extant analogies are: two *Streiftartschen* with the inventory numbers B11[79] and B18[80] from the Kunsthistorisches Museum in Vienna; a right *Streiftartsche* from the Trapp armor collection at Churburg castle;[81] a *Streiftartsche* from the Philadelphia Museum of Art;[82] two *Streiftartschen*, with the inventory numbers A300 (with the mark of Caspar Rieder)[83] and A301,[84] from the Wallace Collection. Another pair of very similar swipe-guards, with the inventory number SC S29, is displayed at Churburg castle. However, we could not gather any technical data on them, for the moment, so they will be left out of the table.

F 7776 may be in the closest relation with visual illustrations from Marx Walther's *Turnierbuch und Familienchronik* (Augsburg, 1506–1511).[85] There, we can see sets of *Streiftartschen* depicted in detail, as having the same shaping, with a semi-cylindrical socket along the mid, vertical axis (Fig. 12).

The marks on the inside surface, left by the chisel when executing the fluting, are highly similar to those featured by the B18 from Kunsthistorisches Museum, dated to 1480–1490.[86]

A later, exquisite pair of swipe-guards can be found in Musée de l'Armée in Paris, as part of a highly decorated and gilded Rennzeug, made in Wittenberg in 1558–1560 by

[76] "Babenberger Stammbaum"/ WikiCom, all the aforementioned battle scenes.
[77] BSB, Cgm. 1930, fol. 12v; Breiding 2012, 72, fig. 14; Anderson 2017, 258, fig. 27; Krause 2017, 185, fig. 5b.
[78] Terjanian 2013, 381; Retsch 2023, 66, fig.8.
[79] KHM, no. B11.
[80] KHM, no. B18.
[81] Trapp, Scalini 1996, 104, fig. 13.
[82] Breiding 2019, 75, fig. 8.
[83] Williams et alii 2012, 173.
[84] Williams et alii 2012, 174.
[85] BSB, Cgm. 1930, fol. 14v, 15v, 17v, and 19r.
[86] KHM, no. B18.

Hans Rosenberg, for Maximilian II.[87] If we overlook the intricate decoration and luxurious shaping, they can essentially be reduced to the same morphology as F 7776. Nevertheless, the latter is much more similar to the ones depicted by Marx Walther, as mentioned before, and its fluting points to the style in fashion in the late fifteenth century and the very beginning of the subsequent one.

F 7812 does not have, to our present knowledge, any close analogies in period art or extant material.

	Size (cm)	Depth (cm)	Weight (g)	Origin	Dating	Observations
NMTH/ F 7776	41 × 42.5	10/ 5.6	2154	unknown	15th–16th c.	Fluted
NMTH/ F 7777	44.5 × 44.5	10	1618	unknown	15th–16th c.	Fluted, Pair of F 7803
NMTH/ F 7803	44.5 × 45	9	1538	unknown	15th–16th c.	Fluted, Pair of F 7777
NMTH/ F 7812	46.5 × 44.5	9	1398	unknown	15th–16th c.	Not fluted, no close stylistic analogies
KHM/ B11[88]	50 × 50.3	11	2500	Augsburg	cca. 1485	Fluted, with the mark of Lorenz Helmschmidt/ owned by Maximilian I.
KHM/ B18[89]	46 × 44	8	1000	Innsbruck	1480–1490	Fluted
Churburg[90]	?	?	?	Innsbruck	1480–1490	Fluted
Ph. MA[91]	41 × 44	9	1150	German	1470–1500	Fluted
WC/ A300[92]	?	?	2040	Innsbruck	cca. 1490	Fluted, mark of Caspar Rieder
WC/ A301[93]	?	?	1560	South German	cca. 1490	Fluted. Similar in style to KHM/ B11

Tab. 1. Comparison of the four NMTH *Streiftartschen* to other relevant examples.

Based on the comparison in Table 1, there is a high probability that objects nos. F 7776, F 7777, and F 7803 are original *Streiftartschen*, very similar in style to those of South-German origin, produced between 1470 and 1500, inclining towards the end of the fifteenth century. As both visual and written sources also mention them at the beginning of the sixteenth century, we may extend the proposed timeframe of their dating accordingly.

[87] "Armure pour le rennen" / MAP.
[88] KHM, no. B11.
[89] KHM, no. B18.
[90] Trapp, Scalini 1996, 104, fig. 13.
[91] Breiding 2019, 75, fig. 8.
[92] WC, no. A300; Williams et alii 2012, 173.
[93] WC, no. A301; Williams et alii 2012, 174.

F 7812, judging by the overall shaping and appearance, and by the production technology that can be intuited on close observation, is, in our personal opinion, a modern reproduction, perhaps made in the nineteenth or early twentieth centuries to complete an existing armor display. It lacks most of the features observable by studying known extant pieces, and, even though its creator seems to have been familiar with the broad category of such defenses, the object does not share any key similarities (in style, materials, crafting methods) with visual sources or items from other collections.

Enquiring for a possible Transylvanian and Hungarian context

A series of historical sources converge to prove that *Rennen*, or closely related jousting customs, have been practiced in the Kingdom of Hungary, during the reign of King Matthias Corvinus, and the time of the Jagiellonian dynasty. We will briefly cover some of them, as well as the isolated clues that may point towards the sporadic military use of swipe-guards by Hungarian mounted men-at-arms.

In 1476, on the occasion of the wedding between Matthias and Beatrice of Aragon, written accounts mention *Rennen* as part of the tournament festivities, and the term should not be interpreted as referring to simple horse races. Such is the account of Hans Seybold, according to whom, as the procession approached Székesfehérvár, Christoph, duke of Bavaria, and his opponent "da **scharpfgerenntt**, das Sy bayd geuallen sein vnd bayde Ross für tod gelegen."[94]

The highlighted term is an apparent reference to the previously mentioned *Scharfrennen*. To erase any possible doubts, the unhorsing and the killing of the mounts would have been much more probable in the context of jousting than in racing. Further, the term is opposed by the phrasing to that of *Gestech*, underlining even more that it is to be understood as a manner of joust: "zwen **scharppff gerennt**, vnd tzen **gestochen** mit krondlen [Krönlein] vor der künigin, vnd haben all schon getroffen."[95]

Earlier, possibly in June 1474, as part of an informal diplomatic mission sent by King Matthias to Edward IV of England,[96] three Hungarian knights are mentioned at Canterbury, in a letter (available to us through an early sixteenth century copy found in the Bibliotheca Harleyana) written by the Garter King of Arms to the English sovereign.[97] The three, wishing to take part in the upcoming tournament, issued an open challenge to feats of arms towards the knights and squires of England. This challenge was structured in highly detailed "chapitres," according to the custom of the time,[98] and proves to be an edifying source regarding tournament practices in Hungary, and their relation to their international counterparts. Our special attention may be drawn towards the challenge issued by the nominal Lancellagus of Tresulvan "to run together without tilt with their

[94] Gulyás 2017, 131: "there they ran sharply (*Rennen*) so that they both fell, and both horses lay dead." Translation from Early New High German provided by Peter Spätling.

[95] Gulyás 2017, 131: "two rode sharply (*Rennen*) and ten jousted with coronels (*Gestech*) in front of the queen, and all of them struck well." Translation from Early New High German provided by Peter Spätling.

[96] Bárány 2013, 8.

[97] Simonyi 1859, 150: "25. By Garter to the Kings highness." The quotes from this letter will be reproduced further on in their original form, as we consider the language intelligible enough by modern English speakers, regardless of some spelling differences.

[98] Moffat 2010, 33.

spears"[99] and "the thikness of the points of the speares heades the breadth of the points of the swordes and the thikness of the edges to be sised by the Kings ordonance."[100]

Unlike those of his companions, this particular challenge carries some features that hint towards its similarity with jousts of war, by the absence of the barrier and the use of lance heads instead of coronels. Interpreting them as being accurately mirrored in German *Rennen* would be highly hazardous, but the source does show us that the chivalric culture of Hungary was intertwined with an international, fluid and borderless European phenomenon,[101] borrowing elements from foreign knights and perhaps even lending them some of their own. After all, the three knights expressed their wish "to find any reasonable occasion to attaine acquaintance in Armes or exercise of the same which is the noble chivalrie of England"[102] and "tho show as well the manner of Justs in the realme of Naples and Justs of other parts."[103]

Such opportunities for chivalric acculturation were recurrent, and, as will be shown further on, the German-speaking cultural regions were the closest source of inspiration. This was the case especially for Jagiellonian Hungary, in the context of the remarkable bloom of tournaments during the reign of Maximilian I, and the direct relations between polities, often providing the perfect pretext for sumptuous displays of jousting.

In the court accounts of Vladislav II and Louis II, tournaments and related expenses are often mentioned, and written sources show that both *Gestech*, and *Rennen*, were practiced at Buda.[104] By this time, it is safe to assume that the terms should be accepted in the typical German understanding of jousting styles from Maximilian I's court, together with their customary, specific equipment. The participants bore not only Hungarian, but also Bohemian, Polish, and German names, reflecting the heterogeneous character of the Jagiellonians' entourage, as kings of both Hungary and Bohemia.[105]

In 1494, Hungarian and Bohemian knights competed against the Poles in a tournament held on the occasion of the diplomatic meeting at Lőcse (Levoča, Slovakia) between King Vladislav II and his brothers, also attended by the Margrave of Brandenburg-Ansbach-Bayreuth.[106] The aim of the meeting is said to have been the consolidation of a lasting alliance between Hungary, Poland, and Bohemia and the preparations for an anti-Ottoman campaign.[107] In such circumstances, knightly displays of valor were not uncustomary, and we may presume that various kinds of jousting would have occurred.

In January 1522, Buda witnessed the wedding of Mary of Hungary (granddaughter of Emperor Maximilian I) and King Louis II. A *Rennhut*, decorated with the initials M and L, was hence made for the king in the Augsburg-based workshop of Kolman Helmschmidt,[108]

[99] Simonyi 1859, 155.
[100] Simonyi 1859, 156.
[101] Rusu 2019, 219–220.
[102] Simonyi 1859, 152.
[103] Simonyi 1859, 153.
[104] Gulyás 2017, 133.
[105] Gulyás 2017, 132.
[106] Gulyás 2017, 136.
[107] Cîmpeanu 2022, 130.
[108] Gulyás 2017, 140; MET, BDMC, no. 29.153.1.

further highlighting the part played by *Rennen* in the culture of Jagiellonian-era courtly tournaments.

A considerable number of stove tiles depicting jousting knights have been discovered in the territory comprised within the boundaries of the late fifteenth- and early sixteenth-century Hungarian Kingdom.[109] While most of them feature armor which can be attributed to the "joust of peace," or the German *Gestech*, some of them clearly show field armor[110], and can presumably be associated with *Rennen*, or somewhat similar jousting fashions.

Written and visual sources may support the statement that the Hungarian elites were familiar with the jousting types in which *Streiftartschen* were very often used. Therefore, their presence within the court tournaments, especially in the Jagiellonian period, is more than likely. As for comments on their military use, they could be speculative at best, based on the contemporary analogies from German-speaking territories. There are not sufficient arguments to either dismiss or to prove that some heavy cavalrymen of the late Kingdom of Hungary would have used swipe-guards in battle. However, one of the contingents depicted as equipped with *Streiftartschen* on the *Babenberger Stammbaum*, roughly contemporary to King Matthias' last years of life, is none other than the Hungarian army.[111] Of course, this does not have the means to advocate any Hungarian military realities of the late fifteenth century.

Regarding the question of such thigh defenses' production in Hungary, sources attest that both Jagiellonian kings spent considerable amounts on armor and other jousting equipment, both for themselves and for their courtiers. Orders were issued to Augsburg, Vienna, and Innsbruck, but they also had (at least in the case of Valdislav II) their own armorers at Buda.[112] Given the documented preference of the Jagiellonians for South-German armor, the latter may have imitated that specific style, and *Streiftartschen* could have justifiably been among the objects they produced.

Other, less royal workshops could have existed throughout the Hungarian territory, judging by the high demand for heavy cavalry equipment at the given time.[113] Furthermore, the widespread use of armor in the Hungarian Kingdom, including Transylvania, has already been eloquently proven and illustrated.[114] Outside of Buda, the cities of Upper Hungary are, however, more suitable candidates for the title of producers than their Transylvanian counterparts. The established narrative of previous Romanian historiography, according to which Transylvanian Saxon cities such as Braşov (Kronstadt/ Brassó, Romania), Sibiu (Hermannstadt / Nagyszeben, Romania) or Cluj (Klausenburg/ Kolozsvár, Romania) were producers of arms and armor, can presently be nuanced.

[109] Rădulescu 2000, 249; Gruia 2009, 215–219.

[110] Gruia 2009, 219–221.

[111] "Babenberger Stammbaum"/ WikiCom, battle scene depicting Adalbert of Austria fighting the Hungarians. We can note that while the pagan Magyars defeated by Adalbert's father are depicted on the Babenberger Family Tree triptych as clad in easternized attire, the already Christian Hungarians in this scene are painted in the same equipment as the Austrian knights. The latter do not wear *Streiftartschen* in this particular medallion, but they do in other scenes.

[112] Gulyás 2017, 132–133.

[113] Ardelean 2013, 10.

[114] Rusu 2019, 553–563.

From the late fourteenth to the early sixteenth centuries, urban registers consequently mentioned, nominally, the masters of the guilds related to either the production or the maintenance of military equipment. While denominations such as *Büsenmacher*, *Bolczmacher, Bogner/ arcufex,* and *Schiltmacher/ Paysgyartho/ clipifex*[115] are unequivocal about the status of **makers** (of firearms, crossbow bolts, crossbows,[116] and shields, respectively), terms like *eruginator* or *Schwertfeger*[117] should be translated and understood as referring to polishers, grinders, **maintainers,** rather than producers.[118] In 1520, we find a *politor armorum* in Braşov and in 1526, a certain Anton *Gladiator* in Sighişoara (Schessburg/ Segesvár, Romania), also being referred to as *gladiator politor*.[119] A differentiation can be made, just like between King Vladislav II's court armorer (*armipar*) and Louis II's Timotheus *armipolitor*, who was the caretaker of the royal armory.[120] On this note, denominations known to indicate armorers, such as *Helmschmidt*, are absent from Transylvanian registers, but *Harnischfeger* is still an existing surname in local Saxon communities. Overall, the written sources suggest that, although the production of some weapons like bows, crossbows, arrows, bolts, shields, and firearms was an undeniable reality of the Transylvanian urban milieu, swords and plate armor were not a notable part of the local products. Saxon smiths may have crafted some lower-end armor elements and bladed weapons, and the period terminology points towards the widespread existence of maintenance workshops, which could have been resellers of equipment produced elsewhere. This equipment could also have been modified and adjusted according to special orders. Their object of activity was still very much present, as shown by iconography and written military requirements alike.[121]

The isolated case of a nominal Benedict *Harnischmacher*[122] attested in Sibiu at the turn of the fifteenth and sixteenth centuries must be noted. His name can be translated to "armor maker". However, just like his homonymous descendant from 1580, he was mentioned in relation to the production of gunpowder.[123]

In 1480, István Báthory, Voivode of Transylvania, ordered a full harness (*lorica magna*) from Braşov, which may be reflected by his effigy from Nyírbátor, completed in 1493. Another order, from 1522, issued by the prince of Moldavia to the city of Sibiu, proves that Transylvanian urban centers were not only dealing in "ammunitions-grade," but also high-end armors.[124] Whether these were locally crafted or just resold and fitted according to custom measurements is still open to debate.

In 1535–1540, we find the armorer Valentin Siebenbürger partially renewing or supplementing three exquisite jousting harnesses made by Kunz/Konrad Poler around

[115] Ţiplic 2009, 68–72, 76–77, 78, 87, 121.

[116] While the literal translation of the Latin *arcufex* may point towards bowyers, *Bogner* is the traditional German term for crossbow-makers.

[117] Ţiplic 2009, 101–103.

[118] Rusu 2019, 515–516.

[119] Rusu 2019, 516.

[120] Gulyás 2017, 132–133.

[121] Rusu 2019, 514.

[122] Pascu 1954, 179.

[123] Ţiplic 2009, 81.

[124] Rusu 2019, 556.

1500.[125] Although his name implies a Transylvanian origin, he was active in Nuremberg,[126] with a number of his notable works also found in other museum collections.[127]

Presumable plate-armor crafting workshops from Transylvanian cities are yet to be archaeologically identified.

In conclusion, the currently available sources can do little to support the hypothesis of the NMTH swipe-guards' Transylvanian origin, given that the craft of plate armory in the region still lacks irrefutable arguments, and that the objects of our study belong furthermore to a marginal category of plate defenses, in terms of their general use in Hungary.

At the same time, we have reasons to believe that *Streiftartschen* were known to, and used by the elites of the Kingdom, in certain circumstances, especially in the Jagiellonian era. Some may have been crafted at Buda, or perhaps other northern urban centers of Hungary. Likewise, such pieces could have very well been part of the recurring orders issued abroad, to the famous German workshops. Stylistically, the three presumably authentic *Streiftartschen* from the NMTH collection belong to such a German tradition. However, we do not have enough data at hand to attribute them to any specific place of origin.

Conclusions

By corroborating the direct analysis of the four swipe-guards from the National Museum of Transylvanian History with visual and written sources, as well as the available data on other known items from various collections, we believe it is quite safe to conclude that objects F 7776, F 7777, and F 7803 are authentic, late-medieval *Streiftartschen*. Furthermore, we can narrow down their dating, from the two century-wide timeframe they are presently attributed to in the inventory register, to the last quarter of the fifteenth century and the first quarter of the subsequent one. Thus, these objects can add valuable statistical data to the existing international base of knowledge on the topic.

Regarding their place of origin, the highest probability is that they were crafted in a South-German workshop, also considering a slight possibility for them to have been made in Hungary (or even somewhere else, where South-German influences were present). However, their production within the territory of Transylvania remains, judging by the currently available sources, highly unlikely.

Object F 7812 is likely to be a modern, probably a nineteenth-century creation, meant for display, maybe to complete an older armor panoply. Nevertheless, its cultural value should not be discarded, as it reflects the customary practices of the age's elites, and given the fact that its crafter obviously knew the broad category of defenses he was trying to reproduce.

Finally, we can presume that similar objects have been in use in certain parts of the Kingdom of Hungary, at least as part of the equipment for *Rennen*, a jousting type that was practiced, beyond doubt, in late fifteenth-and early sixteenth-century Hungary.

[125] Retsch 2022, 158.

[126] Adrian Andrei Rusu only notes the onomastic aspect, overlooking the fact that the workshop was actually based in Nuremberg, and not Transylvania. Rusu 2019, 556.

[127] "Valentin Siebenbürger" / MET; "Valentin Siebenbürger" / NMS.

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Fig. 1: Duke Leopold II in the battle of Mailberg, depicted on the *Babenberger Stammbaum* triptych (WikiCom).



Fig. 2. a–b. Front views of F 7777 and F 7803 (photos by Victor Vătavu).

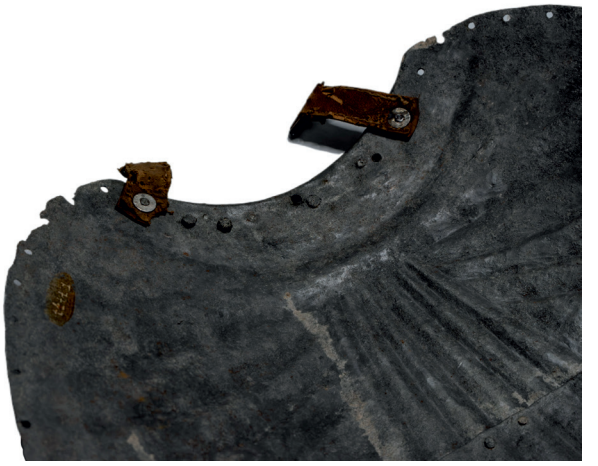


Fig. 3. Rear view detail of F 7777 (photo by Victor Vătavu).

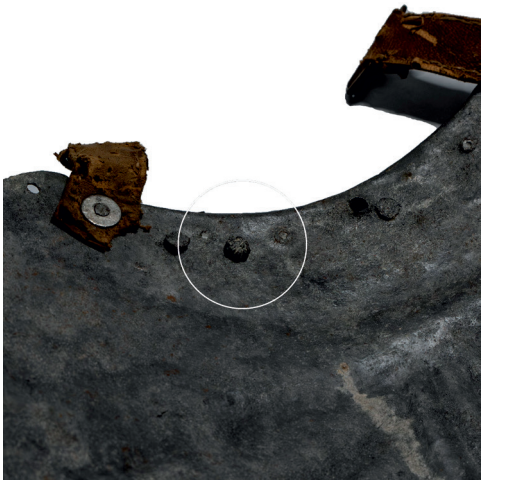


Fig. 4. Detail of the decorative rivet on F 7777 (photo by Victor Vătavu).



Fig. 5. Detail of the straps and buckles on F 7777 (photo by Victor Vătavu).

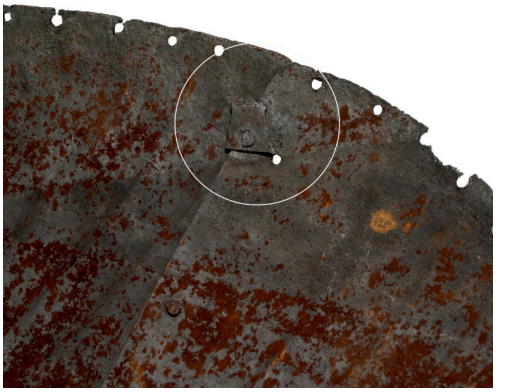


Fig. 6. Detail of the re-riveting on F 7803 (photo by Victor Vătavu).

a.



b.

Fig. 7. a–b. Front and rear views of F 7776 (photos by Victor Vătavu).



Fig. 8. Detail of the chisel marks on the inner surface of F 7776 (photo by Victor Vătavu).



Fig. 9. Detail of the hammering pattern visible on the inner surface of F 7776 (photo by Victor Vătavu).



Fig. 10. a–b. Front and rear views of F 7812 (photos by Victor Vătavu).



Fig. 11. Depiction of a seashell-shaped *Streiftartsche*, from Marx Walther's *Turnierbuch und Familienchronik* (Augsburg, 1506–1511), fol. 12v (BSB, Cgm. 1930).



Fig. 12. Depictions of swipe-guards similar in construction to F 7776, from Marx Walther's *Turnierbuch und Familienchronik* (Augsburg, 1506–1511), fol. 14v, 15v, 17v, and 19r (BSB, Cgm. 1930).

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ARCHAEOMETRIC ANALYSIS OF THE COIN HOARD FROM CRĂIEȘTI (MUREȘ COUNTY)

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Abstract: In March 2024, on the outskirts of Crăiești (Mureș County), metal detectorists discovered a jug containing a coin hoard consisting of 155 pieces. The vessel was retrieved through archaeological research and documentation conducted on-site. To gather as much information as possible on the vessel and its contents, we planned to carry out archaeometric investigations. In the first phase, a CT scan and X-ray of the jug were taken. Subsequently, after cleaning and identifying the coins, we performed non-destructive chemical analyses on the various types of coins using a portable X-ray fluorescence spectrometer (pXRF). The CT analysis of the vessel revealed beam-hardening due to the coins being stored within it. Through pXRF measurements, we established the chemical composition of 22 coins. Of the coins analyzed, 20 were issued between 1760 and 1765 by Maria Theresa and Francis I Stephen of Lorraine in the mints of the Habsburg Empire. These coins exhibited high copper content, ranging from 97.20% to 99.00%. The results of the pXRF measurements support the hypothesis that different mints across the Habsburg Empire produced coins from copper plates with a similar composition.

Keywords: Crăiești, jug**,** coin hoard, seventeenth–eighteenth centuries, radiography, CT analysis, pXRF

Rezumat: În martie 2024, în hotarul localității Crăiești (jud. Mureș) a fost descoperit un vas cu un tezaur monetar alcătuit din 155 de piese, de către persoane pasionate de detecția de metale. Recuperarea vasului s-a efectuat prin cercetarea și documentarea sa arheologică la fața locului. Pentru a afla cât mai multe informații despre vasul cu tezaur și conținutul său, am planificat efectuarea unor investigații arheometrice. În prima fază, s-au realizat investigația CT și radiografia vasului cu monede. Ulterior, după curățirea și identificarea pieselor monetare, am efectuat analize chimice non-distructive pe tipurile de monede existente în tezaur, utilizând un spectrometru portabil de fluorescență cu raze X (pXRF). Prin analiza CT a vasului s-a observat fenomenul de *beam-hardening* cauzat de monedele depozitate în interiorul vasului. Prin măsurătorile pXRF am determinat compoziția chimică a 22 de monede. Dintre monedele analizate, 20 au fost emise între 1760 și 1765 de către Maria Terezia și Francisc I Ștefan de Lorena în monetăriile Imperiului Habsburgic. Acestea din urmă au avut un conținut ridicat de cupru cu un procentaj ce varia între 97.20 și 99.00 %. Rezultatele măsurătorilor pXRF susțin ipoteza folosirii, ca materie primă pentru baterea monedelor, a unor plăci de cupru cu o compoziție asemănătoare de către monetării diferite din cadrul Imperiului Habsburgic.

Cuvinte cheie: Crăiești**,** canceu tip bocal, tezaur monetar**,** secolele XVII–XVIII, radiografie, analiza CT, pXRF

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Introduction

It is quite uncommon for archaeological investigations to reveal an intact ceramic vessel containing a collection of coins. Frequently, in instances where coin hoards have been found during different works of a non-archaeological nature, fragments of ceramics associated with the storage vessel have been reported. These hoards typically find their way into museum collections without any understanding of the context or circumstances surrounding their discovery. In 1980, a catalogue of vessels containing hoards from Transylvania and Banat dating from the sixteenth to the nineteenth centuries was published.[1]

At the beginning of this century, the list of Transylvanian vessels containing monetary hoards was updated with new items, resulting from a study that focused on the spatial and chronological distribution, as well as the typology of everyday vessels from the sixteenth and seventeenth centuries.[2] This type of monetary assemblage is further contextualized by new evidence presented in the 2016 publication, which provides an analysis of late medieval and early modern Transylvanian coin hoards, up to 1700.[3]

Over the last 15 years, the growing prevalence of metal detectors has led to a significant rise in the number of discovered coin hoards. The discovery at Crăiești is a fortunate case because, as a result of good cooperation with metal detectorists, the hoard was recovered through archaeological research. Since the contents of the vessel were preserved intact, it was possible to carry out archaeometric analyses.

The place of the discovery

The village of Crăiești (Hu. Magyarkirályfalva) is located in Mureș County, 9 km southeast of the town of Târnăveni (Hu: Dicsőszentmárton) and 5 km southwest of the commune of Adămuș (Hu. Ádámos). Crăiești can be reached via county road DJ107, from Târnăveni towards Cetatea de Baltă (Hu. Küküllővár), turning right at Cornești (Hu. Sövényfalva), after travelling 1.1 km on county road DJ107D. The settlement is located on the right bank of the Târnava Mică River, geographically north of the Târnava Plateau. The village has medieval origins, appearing in the papal tithe register of 1332 under the name *villa Regis*, with its parish belonging to the Târnava archdeaconry.[4] Throughout the Middle Ages, the settlement was part of the administrative territory of Târnava County. After 1876, it transitioned to Târnava-Mică County, and it has been part of Mureș County since the 1968 administrative reform.

The coin hoard was discovered in March 2024 by József Szakács and Narcis George Carțiș, who conducted metal detection in a wooded area on the outskirts of the village of Crăiești.

The site of the discovery is located 3 km west of Crăiești, in the *Nagy Erdő* (Ro. *Pădurea Mare*; En. "Big Forest") at an altitude of over 500 m (Fig. 1). The name *Nagy Erdő* is included in the collection of historical place names compiled by Attila Szabó T., and it is referenced in the local toponymy of the village dating back to 1781.[5] The coin hoard,

[1] Chirilă et alii 1980, 166–167.
[2] Szőcs 2003, 217–239.
[3] Toma 2016.
[4] EO I, 404 (No. 1117).
[5] Szabó T. 2005, 118: *Nagy Erdőben*.

stored in a ceramic vessel, was hidden in the forest, about 50 m from the field road at the forest edge. The road was already in use in the eighteenth century and is marked on modern maps.

The researched coin hoard

The pot with coins found by the detectorists was left in its original position at the site of discovery, without altering its contents. The assemblage was recovered by specialists from the Mureş County Museum with the assistance of the discoverers.[6] This made it possible to accurately identify the location of the discovery and document the archaeological context of the pot containing the hoard (Fig. 2).

The coin hoard was stored in a jar-shaped clay pot with a pear-shaped body, a short, flared neck, and a simple side handle extending from the neck to the maximum diameter. The decoration consists of a series of blue brush strokes applied vertically against a white backdrop. It appears that the mouth of the vessel has undergone modifications, having been cut and subsequently repurposed as a container for coins. This is indicated by the sudden break in the decorative motif, the absence of the engobe at the current level of the vessel's opening, and the unevenness of the mouth (Fig. 3).

The treasure consists of 155 coins, the earliest piece being a *półtorak* (1½ groschen, dreipölker) issued in 1621 by Sigismund III Vasa, King of Poland. The most recent coins are issues of Maria Theresa from 1765: poltura, greschlii (1 Greschl, ¾ kreuzer), denarii, and pfennigs. The treasure is divided into two chronological groups. The earliest coins are two silver *półtorak* coins from 1621 and 1622. The bulk of the hoard, 99.70%, consists of copper coins issued between 1760 and 1765 by Maria Theresa and her co-regent, Francis I Stephen of Lorraine.[7]

The Thirty Years' War (1618–1648), which broke out in Europe in 1618, worsened the financial situation in the Principality of Transylvania. Inflation spread from Germany to the countries of Central Europe. The effects of this monetary instability were felt in Transylvania between 1620 and 1625, as a significant decline in the divisional currency and a considerable rise in prices. The harmful effects of monetary devaluation were intensified by the presence of foreign divisional coins in circulation. In addition to Transylvanian issues, the daily demand for small coins was primarily fulfilled by Hungarian and Polish divisional coins.[8] Consequently, during the rule of Gabriel Bethlen (1613–1629), Polish *półtorak* coins emerged in the currency circulation of Transylvania, alongside other types.

Polish *półtorak* coins began to be issued in 1614 at the Bydgoszcz mint. In 1623 alone, over 300.000.000 pieces were minted in Bydgoszcz. For a short period of time, they were issued in Vilnius and Riga, the latter a town under Swedish occupation. After 1624, the production of *półtorak* coins declined substantially, and after 1627, their minting was prohibited for an extended period.[9]

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[6] Thanks are due to our coworker Daniel Cioată from the Mureş County Museum, as well as to József Szakács and Narcis George Carţiş for their help in recovering the coin treasure.

[7] The publication and detailed numismatic analysis of the coin hoard will be provided in a separate article, at a later date.

[8] Huszár 1995, 14–15; Huszár, Pap, Winkler 1996, 23–24.

[9] Buza 2019, 491–492; Buza 2021a, 92–93.

The War of the Austrian Succession (1740–1748) and the Seven Years' War (1756–1763) significantly increased the public debt of the Habsburg Empire. In response to the worsening quality of the silver content in small coins, the Viennese government decided in 1759 to mint small copper coins, i.e., with a face value of less than one Groat.[10] During the reign of Maria Theresa (1740–1780), the production of small copper coins grew steadily from 1759 to 1762, after which it declined continuously.[11]

In response to the rising demand for copper, some mines were reopened and new ones were established starting in the early eighteenth century. Among others, the copper mine in Băița (Hu. Rézbánya) in Bihor County[12] reopened after 1726, and the mine in Deva (Hu. Déva) in Hunedoara County opened before 1770.[13]

The copper coins in the Crăiești hoard originate from four different mints: Alba Iulia (Hu. Gyulafehérvár), Baia Mare (Hu. Nagybánya), Kremnica (Hu. Körmöcbánya), and Vienna. The copper sheets (plates) needed for coin production were sourced from Smolník (Hu. Szomolnok) and Banská Bystrica (Hu. Besztercebánya) in present-day Slovakia.[14] In Hungary, besides the declining copper production in the Garam region (Sk. Pohronský region), the most important role in the eighteenth century was played by copper mining in the Szepes and Gömör regions (Sk. Spišský and Gemerský región).[15] The vast majority of copper coins were minted in Kremnica, with the mints in Alba Iulia and Baia Mare playing only a minor role in their production.[16]

In 1762, 309.198,82 kg of copper were processed at the Kremnica mint for coinage, compared to 11.197,92 kg in Baia Mare and 15.971,64 kg in Alba Iulia.[17] Most copper kreuzers were also minted that year in Kremnica: 27.167.324 pieces, compared to 984.000 in Baia Mare and 1.403.483 in Alba Iulia.[18] In 1762, the Vienna mint processed 299.623,00 kg of copper, resulting, among other things, in 26.019.821 coins with a face value of 1 kreuzer.[19]

Some of the raw materials used at the Alba Iulia mint were acquired later, after Maria Theresa's reign. In 1804, copper coins were purchased from Oravița (Hu: Oravicabánya), which were delivered to Alba Iulia in the form of plates, rolled on the rolling mill (*Streckstübl*) in Ciclova (Hu: Csiklovabánya).[20] The purchase of lead-silver with gold content from the Băița mine is also mentioned that year.[21] According to data published by Elek Fényes in 1851, Băița supplied Alba Iulia with silver and Vienna with copper.[22]

[10] Rádóczy 1982, 48.
[11] Rádóczy 1982, 23.
[12] Emődi 2024, 22.
[13] Born 1777, 94–95; Gaál 1910, 174–175.
[14] Jeszenszky 1927, 10; Huszár 1958, 37–38; Rádóczy 1982, 38.
[15] Zsámboki 2005, 19.
[16] Rádóczy 1982, 38.
[17] Rádóczy 1986, 92, Tab. 2.
[18] Rádóczy 1986, 96, Tab. 3; Huszár 1958, 40. Huszár's data for the number of copper coins minted in 1762 in Kremnica differ from those published by Rádóczy. He mentions 27.138.932 pieces.
[19] Rádóczy 1988, 100, 102, Tab. 2 and Tab. 3.
[20] Wollmann 2012, 53; Ciulavu 2020, 81.
[21] Wollmann 2012, 53, footnote 52.
[22] MGSz III, 290.

Sample no.	Issuer	Type	Year of issue	Mint, mint, mark	Weight (g)	Diameter (mm)	Thickness (mm)	References
1	Francis I of Lorraine (1745–1765)	1 Kreuzer	1761	Baia Mare, NB	10.03	26.73×26.40	2.03–2.33	Huszár 1824; Unger 1299c
2	Francis I of Lorraine (1745–1765)	1 Kreuzer	1762	Baia Mare, NB	11.04	24.97×25.56	2.40–2.59	Huszár 1824; Unger 1299c
3	Maria Theresa (1740–1780)	1 Kreuzer	1763	Baia Mare, NB	11.20	25.64×25.45	2.50–2.64	Huszár 1759; Rádóczy 78; Unger 1272b
4	Francis I of Lorraine (1745–1765)	1 Kreuzer	1760	Wien, W	9.69	25.25×25.00	2.24–2.31	Eypeltauer 704
5	Maria Theresa (1740–1780)	1 Kreuzer	1761	Wien, W	11.19	25.86×25.26	2.28–2.47	Eypeltauer 163
6	Francis I of Lorraine (1745–1765)	1 Kreuzer	1761	Alba Iulia, C	10.69	27.09×27.02	1.87–2.59	Eypeltauer 707; Huszár 1825; Unger 1299a
7	Francis I of Lorraine (1745–1765)	1 Kreuzer	1762	Alba Iulia, C	11.87	25.93×26.05	2.37–2.62	Eypeltauer 707; Huszár 1825; Unger 1299a
8	Francis I of Lorraine (1745–1765)	1 Kreuzer	1763	Alba Iulia, C	10.70	26.49×26.27	2.11–2.30	Eypeltauer 707; Huszár 1825; Unger 1299a
9	Maria Theresa (1740–1780)	1 Kreuzer	1761	Kremnica, K	10.63	25.03×25.26	2.53–2.60	Huszár 1758; Rádóczy 78; Unger 1272a
10	Maria Theresa (1740–1780)	1 Kreuzer	1762	Kremnica, K	11.67	26.34×25.65	2.66–2.84	Huszár 1758; Rádóczy 78; Unger 1272a
11	Francis I of Lorraine (1745–1765)	½ Kreuzer	w/o yr	Wien	4.64	21.82×21.04	1.54–1.63	Eypeltauer 710
12	Francis I of Lorraine (1745–1765)	½ Kreuzer	1764	Alba Iulia, CA	5.27	21.50×21.52	1.78	Eypeltauer 711; Huszár 1826; Unger 1300
13	Maria Theresa (1740–1780)	Poltura	1763	Kremnica	16.73	30.68×30.13	2.63–2.72	Huszár 1751; Rádóczy 87; Unger 1270c

Sample no.	Issuer	Type	Year of issue	Mint, mint, mark	Weight (g)	Diameter (mm)	Thickness (mm)	References
14	Maria Theresa (1740–1780)	Poltura	1765	Kremnica	17.08	29.81×29.36	2.80–3.00	Huszár 1751; Rádóczy 87; Unger 1270c
15	Maria Theresa (1740–1780)	1 Greschl (1/2 Poltura)	1763	Alba Iulia	7.74	23.69×23.79	2.06–2.42	Resch 98; Rádóczy 89; Huszár 1019
16	Maria Theresa (1740–1780)	1 Greschl (1/2 Poltura)	1764	Alba Iulia	7.24	22.70×22.85	2.09–2.13	Resch 120; Rádóczy 89; Huszár 1019
17	Maria Theresa (1740–1780)	1 Greschl (1/2 Poltura)	1765	Alba Iulia	8.67	22.65×22.84	2.53–2.67	Resch 154; Rádóczy 89; Huszár 1019
18	Maria Theresa (1740–1780)	Denar	1763	Kremnica	6.40	22.92×22.76	1.84–1.89	Eypeltauer 301; Huszár 1756; Rádóczy 96; Unger 1278
19	Maria Theresa (1740–1780)	Denar	1765	Kremnica?	6.54	22.97×23.20	1.84–1.92	Eypeltauer 301; Huszár 1756; Rádóczy 96; Unger 1278
20	Maria Theresa (1740–1780)	Pfennig	1764	Alba Iulia, CA	2.48	19.33×19.12	0.84–1.04	Eypeltauer 380; Huszár 1020
21	Sigismund III Vasa (1587–1632)	Półtorak (Dreipölker, 3 Polker)	1621	Bydgoszcz	0.84	19.04×18.89	0.48–0.53	Kopicki 373
22	Gustav II Adolf (1611–1632)	Półtorak (Dreipölker, 3 Polker)	1622	City of Riga	0.68	19.17×18.74	0.42–0.48	Ahlström, Almer, Jonsson Riga10

Tab. 1. List of coins by issuer, type, year of issue, and mint, subject to metallographic investigations.

In the first part of our research, we focused on analyzing the Crăieşti vessel using computed tomography (CT) and radiography in order to create detailed images of the interior with the coins stored inside (Fig. 4).[23] These investigations were carried out as a preventive measure in order to determine the intervention strategy for the vessel's contents during the restoration process. In the second part of our investigation, we employed an

[23] Before the CT scan and X-ray examination, rust stains caused by the corrosion of an iron flint striker were clearly visible to the naked eye on the surfaces of multiple coins found in the pot.

archaeometric method already well established in numismatic research, as we performed pXRF analyses on the coin categories in the hoard, taking into account the year of issue and the mints from which they came (Tab. 1, Pl. I).

Methods

In partnership with the Cluj-Napoca University of Agricultural Sciences and Veterinary Medicine and the Institute for Analytical Instrumentation Research ICIA Cluj-Napoca, non-destructive analyses were performed on the vessel and on some of the coins. The coins underwent analysis both before and after their cleaning at the Conservation and Restoration Lab of Mureş County Museum.[24] According to available data, it currently appears that no XRF analyses have been performed on the copper coins issued between 1760 and 1765 by Maria Theresa and Francis I Stephen of Lorraine. Therefore, the hoard in question provided a good opportunity to carry out such analyses on a carefully chosen series of coins based on their types, years, and places of issue. The hoard contains two seventeenth-century *półtorak* coins, and our investigation encompassed these as well.

Computed Tomography (CT) examination

The examination was performed using a Siemens Somatom Scope CT scanner (16-slice), with parameters of 80 kV and 200 mAs, and reconstructions in both soft-tissue and bone windows at a slice thickness of 1 mm. The Hounsfield unit (HU) measurements of the ceramic vessel wall exceeded 2000 HU (an extended range on the Hounsfield scale, where values above 2000 HU indicate extremely dense, calcific, or metallic materials).[25] Approximately 40 % of the vessel's volume contains amorphous, hyperattenuating material with discrete, rounded structures. Multiple beam-hardening artifacts are present, with radial streaking characteristic of differential attenuation of the polychromatic X-ray beam by very dense materials (>3000 HU) and insufficient correction during reconstruction (Fig. 5).[26]

Radiographic (X-ray) examination

In addition, the Siemens Somatom Scope CT scanner (16-slice) was used for radiographic investigation. The radiograph of the vessel demonstrates a segmental, intensely radio-opaque opacity with sharply demarcated margins, superimposed on the luminal air. The pronounced contrast implies the presence of a very dense material (calcium or metal). The image is affected by superimposition/shadowing artifacts due to the dense object, and shows an irregular contour of well-defined metallic material. This high-density pattern is consistent with the presence of bulky metallic content (Fig. 6).

Portable X-ray fluorescence analysis (pXRF)

For the pXRF analyses, a sample of 22 coins from a total of 155 was used. Two of the silver coins analysed (100%) date from the seventeenth century, and 20 of the copper coins analysed (13.07%), out of a total of 153 copper coins, date from the eighteenth century. Comparative metallographic analyses of copper coins served as a starting point

[24] Thanks are due to restorer Tihamér András of the Mureş County Museum for cleaning the items of the coin hoard.

[25] For more on the Hounsfield scale, see: Greenway et alii 2015.

[26] For more on beam-hardening, see: Murphy et alii 2016.

for verifying, within a limited range, the metallographic composition of different types of coins issued by various mints of the Habsburg Empire.

The coins prepared for analysis were cleaned of patina and of the corrosion caused by an iron object. No coating layer (Inkral 44) was applied during restoration, leaving the surfaces exposed for measurement.[27] For X-ray fluorescence analyses, a Bruker Tracer 5i equipment was used for each sample, and data were acquired using a built-in quantitative method adapted for alloy sample type, as made available by the manufacturer. The integration time was 60 seconds for each sample, and analyses were performed under normal atmospheric conditions (no vacuum, no Helium gas), using an 8 mm^2 collimator. To determine the elemental composition of the selected coins, XRF analyses were performed on both sides of the coins (obverse and reverse).[28]

Sample no.	Cu	Ag	Sb	Pb	Total
1A	98.4	<0.5	<0.5	<0.5	98.90
1B	98.3	<0.5	<0.5	<0.5	98.89
2A	98.2	<0.5	<0.5	0.5	99.04
2B	98.1	<0.5	<0.5	0.6	99.11
3A	98.0	<0.5	0.6	<0.5	99.07
3B	97.9	<0.5	0.5	0.5	98.96
4A	97.7	<0.5	0.6	0.7	98.95
4B	98.1	<0.5	0.6	0.5	99.05
5A	98.9	<0.5	<0.5	<0.5	99.62
5B	98.2	<0.5	<0.5	<0.5	98.99
6A	97.6	<0.5	<0.5	0.8	98.85
6B	97.9	<0.5	<0.5	0.7	99.02
7A	99.0	<0.5	<0.5	<0.5	99.64
7B	98.3	<0.5	<0.5	<0.5	99.01
8A	97.6	<0.5	<0.5	<0.5	99.69
8B	98.0	<0.5	0.5	0.5	98.95
9A	98.3	<0.5	0.5	<0.5	98.98
9B	97.8	<0.5	0.5	0.5	98.91
10A	97.2	<0.5	0.6	1.1	98.98
10B	97.4	<0.5	0.5	0.9	98.99
11A	98.1	<0.5	<0.5	0.6	99.05
11B	97.7	<0.5	0.5	0.7	98.98

[27] This requirement is essential for obtaining reliable results, as test measurements on two uncleaned copper coins revealed a rather high concentration of Fe. In contrast, this element was not detectable on the surfaces of the cleaned coins, demonstrating that its presence was due to oxidation from the corroded iron object once found within the ceramic vessel.

[28] Obverse marked with the letter A, reverse marked with the letter B in Tab. 2.

Sample no.	Cu	Ag	Sb	Pb	Total
12A	98.0	<0.5	<0.5	0.7	99.11
12B	97.5	<0.5	<0.5	1.2	99.05
13A	97.8	<0.5	0.5	0.5	98.98
13B	97.8	<0.5	0.5	0.5	98.93
14A	97.6	<0.5	0.7	<0.5	98.87
14B	97.7	<0.5	0.7	<0.5	98.91
15A	98.0	<0.5	<0.5	0.7	99.03
15B	98.0	<0.5	<0.5	0.7	99.04
16A	98.0	<0.5	<0.5	0.7	99.06
16B	97.9	<0.5	<0.5	0.8	99.02
17A	98.2	<0.5	<0.5	<0.5	99.02
17B	98.0	<0.5	<0.5	0.6	99.02
18A	98.3	<0.5	<0.5	<0.5	99.05
18B	98.5	<0.5	<0.5	<0.5	98.95
19A	97.8	<0.5	0.5	0.6	98.96
19B	97.8	<0.5	0.5	0.6	99.02
20A	97.9	<0.5	<0.5	0.6	98.97
20B	97.9	<0.5	<0.5	0.6	98.98
21A	30.6	67.9	<0.5	1.3	99.86
21B	17.3	80.6	<0.5	1.9	99.84
22A	12.7	84.8	<0.5	2.2	99.74
22B	7.0	90.7	<0.5	1.9	99.82

Tab. 2. Results of metallographic analyses performed with a portable X-ray fluorescence spectrometer (pXRF).

Results and discussions

The following observations were made from the 3D and radiographic renderings of the vessel containing the hoard. Regarding the *volume rendering of the vessel* (Fig. 5): surface defects correspond to beamhardening artifacts produced by metallic material within the lumen. Concerning the *radiographic (projection) view of the vessel* (Fig. 6): the intraluminal contents exhibit increased opacity compared to the vessel walls. Interpretation (CT): the appearance is suggestive of extensive deposition of calcific/metallic material within the vessel wall, accompanied by substances denser than bone, which give rise to the observed artifacts.

Metallographic measurements (pXRF) performed on the two *półtorak* coins from the hoard indicate the use of silver-copper (-lead) alloys with varying compositions. Besides being minted in two different mints (Bydgoszcz and Riga) and having different issuers

(Sigismund III Vasa and Gustav II Adolf), they also fall within the period of the *Kipper und Wipper* recession that took place in Central Europe between 1619 and 1621.[29]

Between 1614 and 1627, as a result of the unstable period, the precious metal content of Polish *półtorak* coins decreased continuously. According to the regulations of the monetary commission, the silver purity of the *półtorak* coins issued in 1614 was 7½ lots (469‰). By the resolution of the monetary commission in 1619, the silver purity for coins of one and a half groats (*półtorak*) was set at 6½ lots (406‰). Based on the resolution of 1623, the silver purity established for one *półtorak* coin dropped to 6 lots (375‰).[30] The issues of the town of Riga, which was under Swedish rule since 1621, complied with the monetary system of the Polish-Lithuanian Union.[31]

Recent research has shown that, although the silver content of the Polish *półtorak* had somewhat decreased, these issues were not responsible for the major financial crisis in Transylvania, contrary to the long-held view that attributed the crisis to them.[32]

The two *półtorak* coins analysed by pXRF show a silver purity higher than the officially regulated values (Tab. 1/21–22; Tab. 2/21–22; Pl. I/21–22). The silver content of Sigismund III Vasa's 1621 issue ranges from 67.90% to 80.60%. XRD investigations and SEM-EDX elemental analyses performed on a similar coin by a group of researchers from Cluj-Napoca (Hu. Kolozsvár) and Zalău (Hu. Zilah) revealed a higher silver purity of the *półtorak* coin compared to the value established by the 1619 resolution.[33]

The coins from the second chronological group, minted during the reign of Maria Theresa, exhibit a more uniform composition. An alloy consisting of copper and lead (antimony) was used for their production. These coins have a low face value and were issued by various mints of the Habsburg Empire, with copper content ranging from 97.20% to 99.00%. The most common type among those analyzed is the 1 kreuzer issued between 1760 and 1763 in Vienna, Kremnica, Baia Mare, and Alba Iulia (Tab. 1/1–10, Tab. 2/1–10; Pl. I/1–10). Upon calculating the average values, the lowest percentage of copper is found in the kreuzer issued in Kremnica in 1762, which contains 97.30% Cu, 1% Pb, and 0.55% Sb. Silver is also found in the alloy as a minor component, accounting for less than 0.5%. Among the kreuzers, the highest copper content of 98.65% is recorded for coin no. 7, issued in Alba Iulia in 1762. The other elements detected, namely lead, antimony, and silver, each account for less than 0.5%.

Comparing XRF results for the coins from the second chronological group, namely the 1 kreuzer coins, and to the other eighteenth-century denominations (1/2 kreuzer, poltura, greschl, denar, and pfennig), their composition stands out as similar (Tab. 1/11–20; Tab. 2/11–20; Pl. I/11–20). The use of copper plates with a uniform composition as raw material for coin minting may account for the compositional similarity among the different types of copper coins produced in the Habsburg Empire under Maria Theresa and Francis I Stephen of Lorraine.

[29] Huszár 1995, 14.

[30] Gumowski 1960, 210; Buza 2021a, 93.

[31] Ahlström, Almer, Jonsson 1980, 30.

[32] Buza 2021a, 226; Buza 2021b, 218.

[33] Petean et alii 2022, 7–10, Table 3, 4.

Since the empress's husband, Francis Stephen of Lorraine, had held the imperial title since 4 October 1745, but did not own any imperial domains, he was not entitled to mint his own currency. This inconvenient situation was addressed by Maria Theresa's decree of 11 February 1746. She ordered that the mints of the Habsburg Empire produce half of the coins in her name, while the remaining half would feature the image and imperial title of her husband.[34] This is why the hoard we investigated contained, in addition to Maria Theresa's coins, pieces minted in the name of Francis Stephen of Lorraine, originating from the mints in Hungary and Transylvania.

When analysing coins using the pXRF method, one must bear in mind that this technique has the disadvantage of being a surface-measurement method. The measured concentrations represent only the upper layer of the analysed object, ranging from a few tens to about 100 micrometers. Metal objects can have highly heterogeneous compositions for several reasons: phase segregation during manufacturing, corrosion effects, and surface treatments applied after production.[35] In the case of coins made of a silver-copper alloy, corrosion processes result in the removal of copper and an enrichment of silver on the coin's surface.[36]

Conclusions

In the case of the vessel containing the coin hoard, CT investigation with 1 mm reconstructions and the appropriate window settings confirmed very high densities, which are known to reach values >3000 HU for metals, and radial streak artifacts correspond to beam-hardening phenomena in the presence of high-density material.

However, from a numismatic and heritage care perspective, regarding the contents of the hoard vessel, X-ray imaging proved more informative than other CT outputs. In the overall assessment of density, the X-ray provided us with a visual rendering of the outlines of the concealed coins and their arrangement within the jug.

Although pXRF analyses have the drawback of reflecting only the surface metallographic composition of the objects, they revealed a very similar composition among the 20 copper coins examined. The results showed a high copper content of between 97.20 and 99.00% for coins issued between 1760 and 1765 by Maria Theresa and Francis I Stephen of Lorraine. These data strongly suggest the use of uniformly composed copper sheets for coin production across the Habsburg Empire.

[34] Rádóczy 1982, 42.

[35] Mass–Madsen 2012, 215; Mozgai et alii 2020, 259.

[36] Linke, Schreiner, Demortier 2004, 177; Constantinescu et alii 2020, 55–56.

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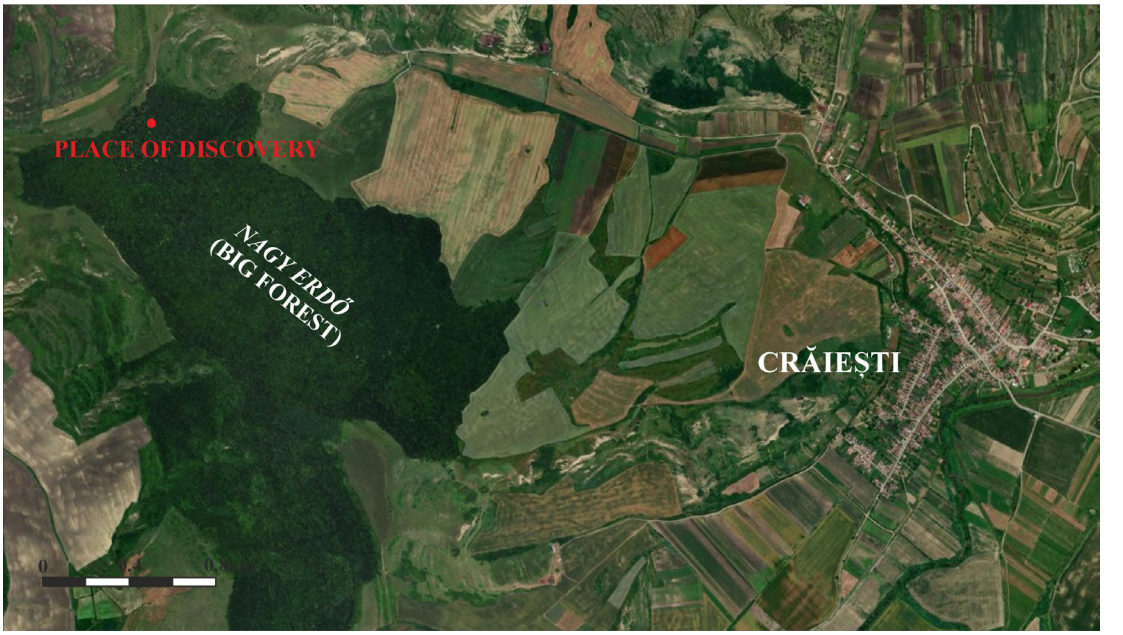


Fig. 1. Place of discovery (basemap: https://www.arcgis.com/home/webmap/viewer.html).



Fig. 2. Archaeological excavation (photo by Keve László).



Fig. 3. The coin hoard and jug after restoration (photo by Attila Henn).

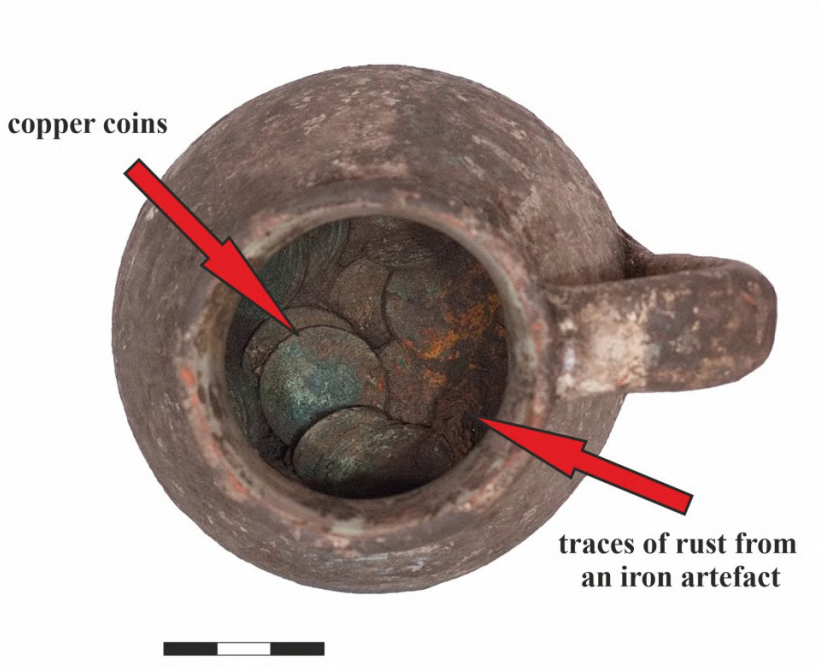


Fig. 4. The jug with coins after excavation (photo by Keve László).

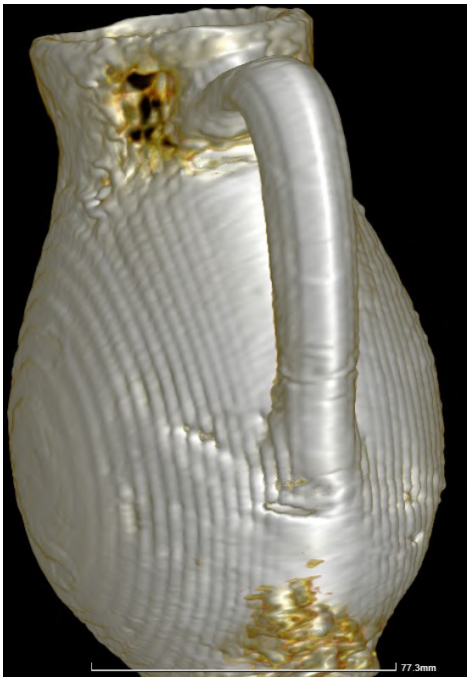


Fig. 5. Volume rendering of the vessel, the surface defects are determined by beam-hardening artifact produced by the metallic material from within the vessel (image by Robert Cristian Purdoiu).

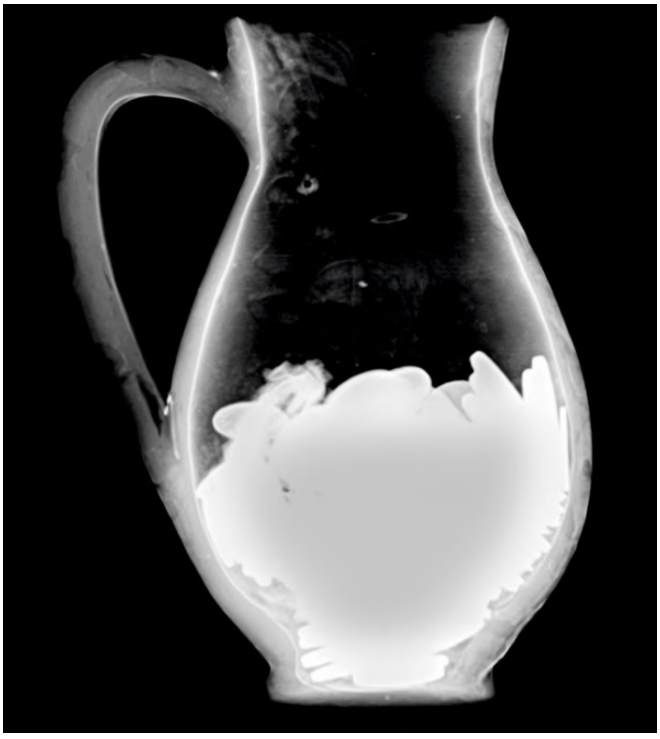
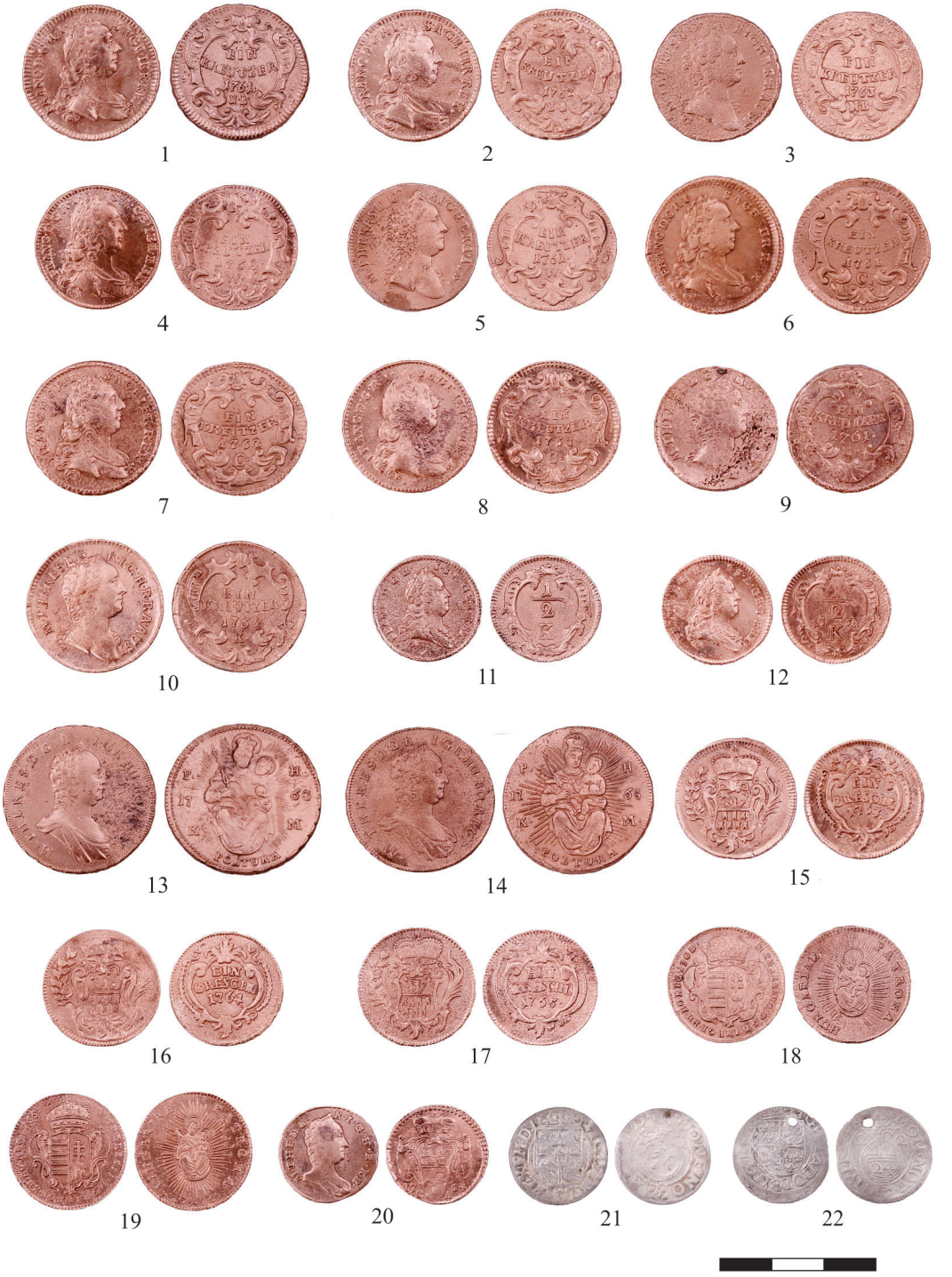


Fig. 6. Radiographic projection of the vessel, the contents present increased opacity compared to the vessel walls (image by Robert Cristian Purdoiu).



Pl. I. Coins subjected to metallographic analysis (photo by Attila Henn; image processing by Keve László).

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A RESTORED IMAGE OF POWER. HISTORICAL, ARTISTIC, AND CONSERVATION STUDY OF AN IMPERIAL PORTRAIT OF NAPOLEON BY FRANÇOIS SÉRAPHIN DELPECH, FROM A PRIVATE COLLECTION

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Abstract: This study presents a comprehensive analysis of a notable engraving attributed to the French artist François-Séraphin Delpech (1778–1825), depicting Napoleon Bonaparte with coronation robes and currently preserved in a private collection in Romania. The research follows a dual approach: a historical-artistic investigation to contextualize the work within the iconographic and cultural framework of its time, and a technical-material analysis to assess its condition and guide a tailored restoration process.

Keywords: Napoleon, Delpech, engraving, restoration

Rezumat: Acest studiu prezintă o analiză cuprinzătoare a unei gravuri remarcabile atribuite artistului francez François-Séraphin Delpech (1778–1825), care îl reprezintă pe Napoleon Bonaparte în costum de încoronare și care este în prezent păstrată într-o colecție privată din România. Cercetarea urmează o abordare dublă: pe de o parte, o investigație istorico-artistică menită să contextualizeze lucrarea în cadrul iconografic și cultural al epocii sale, iar pe de altă parte, o analiză tehnico-materială pentru a evalua starea de conservare și a orienta un proces de restaurare adecvat.

Cuvinte cheie: Napoleon, Delpech, gravură, restaurare

Introduction: the lithographic art in France

The invention of lithography[1] by Alois Senefelder (Prague, 1771–Munich, 1834) in 1796[2] in the Bavarian region marked a pivotal turning point in the realm of graphic techniques, opening up new expressive and productive possibilities. This discovery emerged as a complement to the pre-existing engraving methods, which had already been refined to the highest standards, by offering painters, draftsmen, and typographers a printing tool that was at once more economical, versatile, and capable of delivering high-quality results.

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[1] Lithography is a printing process based on the natural antipathy between grease and water. The design is drawn directly onto a slab of stone using a greasy pencil or material, or transferred using shallow engraving or photographic methods. In the photographic method, the design is copied onto a slab of stone coated with a photosensitive layer, using light exposure. Once the design is chemically fixed, the stone is dampened with water, then rolled with oily ink. The ink adheres to the greasy drawing and is repelled by the damp areas. Impressions are taken using a press. Only certain types of stone, such as limestone, are suitable for lithography. However, zinc and aluminum have also been employed as substitutes. Olteanu 1992, 233; Chilvers 2003, 282; Salomon 2010, 346, 347.

[2] Bryan 1905, 67; Turner 1998, 404; Chilvers 2003, 346; Benezit 2006, 12, 993.

Following his discovery, Alois Senefelder initiated a fruitful collaboration with the Munich-based musician Franz Gleissner, employing the lithographic technique for the printing of musical scores. This applied experimentation represented one of the earliest tangible demonstrations of the new technology's potential and soon extended to the city of Offenbach am Main, where Senefelder placed his expertise at the service of the composer and music publisher Johann Anton André.

In 1800, Senefelder established a lithographic press in London and obtained patent rights for the application of the technique in England, and subsequently in Scotland, Ireland and other European countries.[3]

Among the nations that adopted lithography with growing interest, France occupied a prominent position. Although initially slower than England in embracing the innovation, it would later distinguish itself through the quality and diversity of its applications. The entry of lithography into the French music publishing scene was made possible by the arrival of a lithographic press brought into the country by Philipp André, brother of Johann Anton André, whom Senefelder himself accompanied during his journey to Paris. Relatively recent research has confirmed that the French production of lithographed musical scores in the early nineteenth century was particularly prolific.[4] A central role was played by the printing house founded by André in Charenton, a district in the southern outskirts of the French capital. This establishment was soon followed by a second workshop, located in the heart of Paris, on Rue Saint-Sébastien, as evidenced by the addresses printed on music covers from the period.[5]

Interest in lithography grew steadily in France, in part due to ongoing contact with the Bavarian cultural milieu. This connection and the clear desire to develop lithographic art on French soil manifested concretely in the ultimately unsuccessful attempt to persuade Alois Senefelder to relocate to Paris and assume the directorship of a lithographic workshop. At the time, Napoleonic France was marked by a heavy political atmosphere, and the Emperor himself had little interest in promoting an art form that could potentially be turned against him through the dissemination of subversive ideas. As a result, the monitoring and suppression of lithography were both deliberate and pronounced.

It was only with the advent of the Restoration and the accession of Louis XVIII to the throne that lithography experienced a true revival in France. This new era of greater openness and cultural renewal saw the establishment of several lithographic workshops and it became possible to obtain patents upon formal request.

The pivotal moment in the diffusion of lithography in France occurred thanks to the work of Charles Philibert de Lasteyrie, a prominent figure whose interest in this innovative technique was evident from the outset of its introduction into the French context. Initially,

[3] Turner 1998, 404.

[4] French art historians have long tended to situate the introduction of the lithographic press in France at a relatively late date, conventionally around 1807. However, evidences confirm that Frédéric André formally submitted an application for the importation patent as early as December 1801. This chronological inconsistency has contributed to a persistent historiographical ambiguity regarding the initial phases of lithographic production in France, giving rise to a chain of misinterpretations that have been transmitted and reinforced within scholarly discourse. See: Barbier-Vermas 1814, 312; Peignot 1819, 20; Société d'encouragement pour l'industrie nationale 1807, 11–12; Twyman 1970, 41.

[5] Twyman 1970, 12–17, 41–44.

Lasteyrie collaborated with Godefroy Engelmann in establishing a Parisian lithographic workshop shortly after the fall of Napoleon, an enterprise supported by Count Élie Decazes, a loyal Bourbon supporter and thus aligned with Louis XVIII.

However, the workshop's activities were largely confined to the production of circulars, administrative documents, and materials intended for government bureaucracy, which proved limiting for Lasteyrie's broader artistic and editorial aspirations.

Driven by the desire to fully harness the expressive potential of lithography, he went on to found his own independent printing press on Rue du Four-Saint-Germain, where he pursued a significantly more diverse editorial practice. His publications ranged from naturalistic illustrations and musical scores to maps, reproductions of manuscripts, and other cultural and educational works.[6]

This new lithographic momentum in Paris sparked the emergence of numerous other workshops, some of which were founded by former collaborators of Lasteyrie himself, who, after gaining experience in his atelier, chose to embark on independent ventures. Within this dynamic and fertile environment, the figure of François Séraphin Delpech emerged. It was within this professional network that Delpech began his prolific and renowned lithographic career, one that would leave a lasting mark on the history of nineteenth-century French printmaking.

François-Séraphin Delpech (1778–1825): a brief biography

François-Séraphin Delpech, born in Paris in 1778 and deceased in 1825, was a renowned lithographer, draftsman, and art critic, widely regarded as one of the most prominent printmakers in nineteenth-century France.[7] It is known that François-Séraphin Delpech studied both drawing and painting, although available sources do not allow us to identify with certainty either the institution he attended or the masters who guided his early training. He later began working as an art critic for the prestigious literary journal *Mercure de France*. At the same time, he engaged in the print trade, initially operating in the municipality of Sèvres. His career took a significant turn in 1816, when he assumed a leading role as the principal distributor of lithographs produced at the Parisian printing house of Charles Philibert de Lasteyrie, which had opened that same year in rue du Four Saint-Germain.

However, Delpech made the decision to establish an independent enterprise, founding his own atelier dedicated to the design of subjects, the preparation of lithographic stones, the printing process, and the subsequent commercialization of the lithographs. This workshop was likewise located in Paris, at number 3 Quai Voltaire. Despite the proclamation of freedom of the press in France, the actual exercise of this right was not fully ensured without first obtaining a *brevet*, an official authorization issued by the Ministry of the Interior starting in 1810, initially required only for booksellers and, from 1817 onward, extended to lithographers as well. In a letter written in 1818 to justify his application for this licence, Delpech clearly stated that the intensity of his professional activity no longer allowed him to work effectively with the limited number of presses available at Lasteyrie's printing house. This situation made it necessary for him to establish his own workshop,

[6] Twyman 1970, 50–51.

[7] Benezit 2006, 4, 678.

equipped with a larger number of machines, in order to optimize both the production and distribution of his lithographic works.[8]

Thus, Antoine Charles Horace Vernet (Bordeaux, 1758 –Paris, 1836),[9] known simply as Carle Vernet, an artist of considerable renown and a prominent figure in the pictorial and graphic arts of early nineteenth-century France, as well as a member of a distinguished family of painters,[10] who had initially collaborated with Lasteyrie's printing house for the production of his lithographs, later chose to support and join Delpech in his newly founded publishing venture.

Vernet's admiration for Delpech's organizational and artistic abilities is evidenced by a noteworthy series of lithographs published in 1818, in which he depicts Delpech's atelier, highlighting not only the functional aspects of the workshop but also the intense activity and vibrant creative atmosphere that pervaded the space.[11] The scene depicted by Carle Vernet is lively and rich in narrative detail, featuring adults and children who gather with attentive and curious gazes around the numerous prints displayed outside Delpech's workshop. The atelier, modest in scale and appearance, is equipped with a canopy that shelters both the entrance and the exhibited artworks. At the threshold of the shop, a young man is portrayed carrying a large lithographic stone balanced on his head, an explicit allusion to the complexity of the craft and the relentless pace of production. Above the entrance hangs an elegant sign bearing Delpech's name, while on the door's window a placard announces the recent publication of the *Album lithographique, ou, Recueil de dessins sur pierre // par des artistes français*. This work, dating back to 1818, compiled prints by several French artists collaborating with the atelier,[12] including Vernet himself, thereby confirming the lithograph's date of creation (Fig. 1).

[8] During the 1990s, the French Archives Nationales undertook a rigorous and meticulous effort to analyze and catalogue the brevets (official licenses) issued in the city of Paris and in other selected areas of the national territory. This demanding archival project led to the systematic identification and compilation of a wide range of historical documents: letters written by applicants (including the particularly significant one by Delpech), official concession acts, certificates, as well as physical samples of the products that were created and brought to market. This operation, complex yet fundamentally important for an accurate historical reconstruction, enabled the identification of numerous artists and artisans, while also providing valuable insights into the location of active workshops in the capital and the scope of artistic production during that period. The collected data was subsequently digitized and made accessible through an online platform under the title *Brevets des imprimeurs, libraires et lithographes (par département) (1810–1881).* For further information: "Direction de l'Imprimerie" / France Achives.

[9] Bryan 1905, 290.

[10] Carle Vernet's father, Claude Joseph Vernet; Bryan 1905, 290–291. The three brothers of Claude Joseph Vernet; Bryan 1905, 290. Carle Vernet's son, Emile Jean Horace Vernet; Bryan 1905, 291.

[11] Several copies of Vernet's engravings are preserved today at the RISD, in the Graphic Arts Collection of the Princeton University, Metropolitan Museum of Art, British Museum, Cleveland Museum of Art, National Gallery of Art in Washington, D.C. and at the Minneapolis Istitute of Art Collection.

[12] Among the many artists who collaborated with François-Séraphin Delpech, special mention must be made of Louis-Léopold Boilly, a renowned painter, draftsman, and lithographer active from the late eighteenth to the mid-nineteenth century. His life and extensive body of work are the subject of an in-depth study by Henry Harrisse entitled *L. L. Boilly, peintre, dessinateur, et lithographe; sa vie et son œuvre, 1761–1845; étude suivie d'une description de treize cent soixante tableaux, portraits, dessins et lithographies de cet artiste*. In this volume, Harrisse not only provides a detailed biographical and critical account of Boilly's career, but also

Through this visual testimony and artwork of considerable aesthetic and documentary value, it becomes possible to trace Delpech's reputation and success even prior to the formal inauguration of his own workshop. That opening signified not merely a beginning, but the public and institutional recognition of a talent already widely acknowledged, as well as the formalization of his artistic and entrepreneurial vision.

Among the most significant editorial works produced under the direction of François-Séraphin Delpech are collections of extraordinary artistic value. Among these stand out the *Voyages pittoresques et romantiques de l'ancienne France*, conceived by Charles Nodier (Besançon, 1780–Paris, 1844) and Justin Taylor (Bruxelles, 1789–Paris, 1879) between 1818 and 1820, and the renowned series *Costumes civils et militaires de la monarchie française depuis 1200 jusqu'à 1820*, composed of meticulously hand-colored lithographs. Also noteworthy is the *Recueil de vues pittoresques de la France* by Constant Bourgeois (Paris, 1767–Paris, 1841), as well as the *Choix de vues pittoresques, châteaux*, gathered in the department of Gironde and surrounding regions through the work of Claude Thiénon (Paris, 1772–Paris, 1846). The editorial and commercial success of these publications was such that the name *Delpech* became synonymous with iconographic refinement: to own one of his prints was considered a mark of taste and cultural distinction.[13]

In 1823, François-Séraphin Delpech initiated the renowned series *Iconographie des contemporains depuis 1789 jusqu'à 1829*,[14] a monumental editorial project aimed to document, through lithographic portraiture, the leading figures of the political, cultural, and social landscape of post-revolutionary Europe. The work remained unfinished at the time of his death in 1825, due to illness. It was his wife, Marie-Marguerite-Brigitte Naudet (Paris, 1780–Paris, 1851), who oversaw its posthumous publication in two volumes, issued in 1833.

Building on the great success of the first series of published portraits, Madame Delpech decided to continue the editorial project, this time under her own name, with the album *Iconographie française ou choix de cent portraits d'hommes et de femmes qui se sont acquis en France depuis le règne de Charles VII jusqu'à la fin de celui de Louis XVI*,[15] published in 1840. This new venture benefitted from the collaboration of artists such as Antoine Maurin (Perpignan, 1793–Paris, 1860) and Zéphirin Félix Jean Marius Belliard (Marseille, 1798–Aix-en-Provence, 1871). At the same time, the album *Rois et Reines de France: Depuis l'origine de la Monarchie Jusqu'à Nos Jours* is also published, a collection of lithographic portraits of all the rulers who have shaped the history of France.

Following further collaborations, projects, and successes, Madame Delpech opened a new shop at 44 Rue du Bac, closing the one previously opened by her husband. She continued to run the business with dedication and commitment until her death.[16]

thoroughly documents his collaboration with Delpech's atelier, listing numerous prints that were produced and published at Delpech's establishment; Harrisse 1898.

[13] "Deplech" / Dictionnaire.

[14] Delpech 1833, I–II.

[15] Delpech 1840.

[16] "Deplech" / Dictionnaire.

From printshop to private collection: the journey of a napoleonic engraving

The engraving by Delpech that forms the subject of this study depicts Napoleon in imperial robes and shows only his bust. It is nonetheless evident that the image is based on an original full-figure composition (Fig. 2).[17]

Print: 174 × 228 × 0,2 mm; Frame: 260 × 203 mm; Passe-partout: 174 × 230 mm; Inner window: 112 × 162 mm.

Beneath the image of the Emperor, along the left margin, is the inscription *lith. de Delpech, à Paris*, meaning "lithograph by Delpech, in Paris." Further below the composition, in the central position and in italics, is the title of the work: *Napoléon*. Still lower, on the right-hand side, is the facsimile of the Emperor's signature, an element that we shall briefly dwell upon, as it holds particular significance from both a documentary and iconographic perspective (see Fig. 3a).

Through the analysis of Napoleon Bonaparte's extensive and articulate correspondence, subject of in-depth philological and historical scholarship and widely published in critical editions, there clearly emerges not only the upward trajectory of his extraordinary political and military career, but above all the evolution of his complex personality. This development is revealed within the lines of his epistolary writing through emotional fluctuations, tonal shifts, and lexical variations that vividly reflect the various phases of his life, profoundly shaped by the historical events that marked his destiny. A significant evolution can also be observed in the form and construction of Napoleon's signature, which emblematically reflects the identity and institutional transformations that accompanied his ascent within the French military and political establishment. Beginning with the earliest documents from his youth, when, at the age of sixteen, he was still a newly enrolled cadet (*Buonaparte fils)*, his signature underwent gradual changes, symbolically aligning itself with the successive ranks he attained: first as an artillery officer (*Buonaparte officier d'artillerie*), then as a captain, and finally, at the age of twenty-six, as a general (*Général Buonaparte*).[18] In each of these phases, he signed simply as *Buonaparte*, a form he continued to use even after his appointment as First Consul two years later. The transformation in Napoleon's signature becomes strikingly evident from the moment of his ascent to the imperial throne in 1804, at which point he began to sign simply as *Napoléon*. From this period onward, various alterations in his autograph can be observed, reflecting, as previously noted, the evolving nature of his political circumstances and psychological state. A particularly significant example appears in a letter written immediately after his triumphant victory at Austerlitz in 1805, where the signature, rising in form and marked by boldness, seems to symbolize both Napoleon's meteoric rise and his growing personal ambition. Over the ensuing years, especially as the conflict with Russian forces intensified, further changes in his signature are evident: it becomes increasingly abbreviated, often reduced to *Nap.*, with hastier, more agitated strokes, suggesting mounting psychological strain. One particularly curious

[17] It has indeed been established that Delpech's work is derived from the famous painting by François Gérard, the artist who created the first official portrait of Napoleon as the newly crowned Emperor in 1805, which precedes by one year the well-known portrait executed by Jean-Auguste-Dominique Ingres. There are additional engravings depicting Napoleon based on Gérard's model, created by artists such as William Holl (1771–1838), Auguste Gaspard Louis (1779–1857), and Carl Barth (1787–1853).

[18] During the period in which he held the rank of general, there is also evidence of an abbreviated variant of his signature, marked by the use of the double initial "BB," documented in the year 1796; Schooling 1895, 528.

instance is found in a letter penned in the immediate aftermath of the disastrous defeat at Leipzig, where the signature is nearly unrecognizable, reduced to a mere scrawl in which only a vague semblance of the letter "N" can be discerned. As time passed and his exile to the island of Elba drew near, the autograph took on a noticeably heavier character, marked by thick, undulating strokes that attest to both physical exhaustion and psychological fatigue. Upon his brief return to power during the Hundred Days, Napoleon's signature regained a certain assertiveness and authority, a quality maintained even after his final defeat at Waterloo. At Saint Helena, where he spent his final years, the signature was once again simplified, reverting to the abbreviated form *Nap*.

This contextual overview has been deemed necessary in order to accurately interpret the facsimile of Napoleon's signature as it appears on Delpech's engraving, thereby allowing for its identification within a chronological framework. It has therefore been established that the signature corresponds to the variant employed by Napoleon in a letter dated 1815, composed in the immediate aftermath of his defeat at Waterloo. In this historically significant letter, penned on the eve of his formal surrender to the captain of the *Bellerophon* on July 14 and addressed to the Prince Regent of England, the Emperor wrote the following:

> Your Royal Highness: victimised by the factions which divide my country, and by the hostility of the European powers, I have ended my political career; and I come, as Themistocles did, to claim a seat by the hearth of the British people. I put myself under the protection of British law, a protection which I claim from Your Royal Highness, as the strongest, the stubbomest, and the most generous of my foes.[19]
>
> Napoléon.

The facsimile of the signature reproduced in Delpech's engraving presents slight discrepancies when compared to the original autograph, a perfectly understandable circumstance, given its nature as a reproduction. However, it is worth noting that other printed representations of Napoleon are likewise accompanied by facsimile signatures. These reproductions, whether produced by Delpech himself or by other engravers and publishers operating within different editorial contexts, share a common tendency, which had by then become a widespread fashion to include the printed signature.[20] The printed facsimile stands as the hallmark of these engravings, endowing them with a distinctive quality that amplifies their appeal to a broad audience. It carries a symbolic and communicative significance comparable to that attributed today to autographed memorabilia or branded items linked to prominent public figures.

Engravings depicting Napoleon at the height of his imperial career invariably adopt the autograph form dating to 1815, a variant evidently considered the most representative

[19] Maitland 1904, 54–55; Thompson 1934, 362.

[20] Additional examples of engravings of Napoleon bearing his facsimile signature appear in the English edition of *Mémoires historiques sur Napoléon Ier, la Révolution, le Directoire, l'Empire et la Restauration*, published as *Memoirs of Napoleon, His Court and Family* by Madame Laure Junot, Duchess of Abrantès. This edition was issued by Richard Bentley in London in 1836, with engravings executed by William Read (active 1824–1837). Other engravings, executed by anonymous artists, reproduce works by prominent French painters such as Ernest Meissonier (Lione, 1815 – Paris, 1891) and Paul Delaroche (Paris, 1797 – Paris, 1856). These prints depict Napoleon and consistently feature his facsimile signature. Abrantes 1836.

or aesthetically effective. The same principle is observable in representations of the young Bonaparte at the outset of his military and political path, in which the facsimile signature consistently bears the surname *Bonaparte*, itself chosen from among the various forms he employed over time. In the first volume of the *Iconographie des contemporains depuis 1789 jusqu'à 1829*, two engravings depicting Napoleon Bonaparte appear,[21] positioned between the portraits of Joseph Bonaparte and Lucien Bonaparte. In both prints, Napoleon is portrayed at a young age, and each includes a facsimile of his signature, added prior to his rise to imperial power. An analysis of the signature suggests a correspondence with the authentic one found in a letter sent during the Egyptian campaign of 1798, when Bonaparte was only twenty-eight years old.

In the second volume of the *Iconographie des contemporains depuis 1789 jusqu'à 1829*, the engraving depicting Napoleon, this time portrayed in his imperial role,[22] is positioned immediately after those dedicated to Joachim Murat and his wife, Caroline Bonaparte. This imperial representation of Napoleon is based on a work attributed to the Italian painter Antonio Pasini (Borgo San Donnino, 1770–Parma, 1835), who drew inspiration from the iconographic models developed by François Gérard (Rome, 1770–Paris, 1837) and Jean-Auguste-Dominique Ingres (Montauban, 1780–Paris, 1867).

An examination not only of the engravings dedicated to Napoleon found in the *Iconographie des contemporains*, a project initiated, as previously mentioned, by François Delpech but published posthumously by his wife, but also of those depicting other prominent figures active between 1789 and 1829, as suggested by the title of the collection itself, reveals that these plates share several common features with the engraving under investigation in this study. Among these recurring elements are the technique employed, the compositional structure, the presence of the artist's signature and the facsimile of the subject's autograph. A careful examination of both volumes published by Delpech has confirmed the absence of the engraving of Napoleon that is the focus of our inquiry. We will return to this topic later, following a concise historical overview of the engraving, with the aim of reconstructing its journey from France to its arrival in a private collection in Romania.

The limited information available about this engraving makes it difficult to fully reconstruct its history. It is, however, plausible, and not to be ruled out, that the work has passed through more than one owner over time. The most recent and current owners of the engraving are the Postelnicu family, originally from Bucharest and still residing there, who received the portrait of Napoleon as a wedding gift in 1990 from a family friend, a musician then performing with the Bucharest Opera Orchestra. It was Alexandra Postelnicu who, during a visit to her parents' home, noticed the portrait of the French Emperor, which had hung on a wall of the family residence for years. Recognizing its potential historical and artistic value, she decided to consult Iulia Pascu, a specialist in graphic art and engraving conservation. While removing the oval frame encasing the sheet,

[21] The first engraving draws inspiration from the renowned painting by Antoine-Jean Gros titled *Bonaparte au pont d'Arcole*, dating to 1796. The second engraving, depicting Bonaparte with arms crossed and wearing his characteristic bicorne hat, closely resembles the well-known portrait by Jean-Baptiste Isabey, *Napoléon à la Malmaison*, created during the period when he still held the position of First Consul.

[22] The facsimile of the signature can be dated to 1815, precisely like the engraving that is the subject of the present study.

Pascu uncovered several significant details that could help in partially reconstructing the engraving's material history.

Originally printed on a rectangular sheet, the work had been trimmed into an oval shape to fit its frame. A pristine white passe-partout had also been added, which in the mounting partially obscured the facsimile of the Emperor's autograph signature. A thin, coarse cardboard, similar to kraft paper, was affixed to the back of the frame. On it, a stamped inscription is visible, containing a name. Although the text is difficult to decipher, it appears to be divided into two parts: the first seems to indicate a personal name and surname, probably followed by a description of the profession or the name of the workshop responsible for crafting and assembling the frame for the engraving. The only clearly legible word is *Dumitru*; however, even this presents some ambiguity, as it is unclear whether it represents a surname or a given name. This uncertainty arises from the fact that the word preceding *Dumitru* is tough to read: the only discernible letters appear to be a capital "T," followed, possibly, by a lowercase "l" and "a" (see Fig. 3d). As such, it is not possible to determine with certainty whether it refers to the artisan's first or last name. Nevertheless, it is plausible that *Dumitru* is the surname, and that the workshop was based in Bucharest, an assumption supported by the fact that *Dumitru* is among the most common and densely distributed surnames in the Romanian capital, more so than in other regions of the country. This detail suggests that the engraving arrived in Romania in its original form, without any modifications or prior restorations. Once the thin backing board was removed, a second, more rigid cardboard support was revealed. The engraving had been adhered to this support and subsequently covered with the passe-partout. The entire assembly was then mounted within a frame and protected by glass. The rigid cardboard, used to secure the frame structure with small nails, shows clear signs of prior use: visible on its surface are drawings made by a child, along with some mathematical calculations, whose numerical values bear no relation to the engraving itself or its dimensions (see Fig. 3c). These elements clearly indicate the use of repurposed material, raising questions about the professionalism and care of the conservation intervention (see Fig. 3e–3f).

It was also possible, albeit briefly, to speak with the individual who donated the engraving to the Postelnicu family. He was asked how he had come into possession of the work, with the initial hypothesis being that he might have acquired it from an antique shop. This assumption was promptly dismissed, as was the possibility that he was a collector. Although the latter statement leaves room for some doubt, no useful information emerged that could significantly aid in reconstructing the provenance of the engraving.

Although it has been possible, albeit only in part, to reconstruct the history of the engraving in question, the matter of its inclusion in a specific publication remains unresolved, bringing us back to the central issue previously raised. As already noted, the engraving does not appear in the album *Iconographie des contemporains depuis 1789 jusqu'à 1829*, despite its formal qualities strongly suggesting that it could have formed part of such a collection. Identical impressions of the engraving under investigation are currently held at the Royal Collection Trust and at the Österreichische Nationalbibliothek. More generally, the lithographic portraits published by Marie Marguerite Brigitte Naudet-Delpech are preserved in numerous prominent museums across Europe and beyond, a distribution largely explained by the high number of impressions produced. The engraving

of Napoleon, however, is conspicuously absent from most major reference collections, with the exception of the two known copies identified to date. This absence raises important questions regarding the work's circulation, preservation, and potential rarity. The difficulty in identifying the engraving and assigning it to a definitive publication is due primarily to the lack of access to the other albums published by the widow Delpech. Research has been limited to the two accessible volumes of the *Iconographie des contemporains* and, although there was hope that these volumes might offer significant insights, the investigation did not yield the desired results. Furthermore, given the rarity of the engraving in museum collections, attempts were made to formulate hypotheses, inevitably conjectural in nature, in an effort to fill the documentary gaps. One hypothesis is that François Delpech may have published it in a limited edition prior to his death, which could explain the rarity of surviving examples and its absence from major collections. Alternatively, that the widow Delpech consciously chose not to include it in the two volumes, a decision that seems difficult to justify and hardly plausible, especially considering the engraving's rare beauty and its outstanding technical and artistic excellence.

It remains to be determined whether the engraving of Napoleon might be found in a Naudet-Delpech album that has not yet been consulted. A possible source could be the volume *Rois et Reines de France: Depuis l'origine de la Monarchie Jusqu'à Nos Jours*, a work that, due to its nature and historical context, could undoubtedly have included the figure of Napoleon. This hypothesis seems plausible, especially considering his depiction in imperial robes and the fact that the famous painting by Gérard was used as the iconographic model for such a significant lithograph. However, a fortunate opportunity arose to trace, through a platform specialized in the auctioning of artworks, an album entitled *Recueil de 113 portraits d'hommes et femmes illustres*, bearing the name of Delpech and plausibly datable to the period between 1818 and 1830. Within this collection, which comprises engravings depicting various prominent historical figures, there also appears a portrait of Napoleon that is identical to the one currently under examination. This discovery suggests, with a reasonable degree of credibility, that the engraving in question may indeed originate from that album, likely published by Delpech's widow following her husband's death. The volume thus appears to consist of plates engraved both by Delpech himself during his lifetime and by other collaborating artists subsequently involved in its compilation.[23]

In light of the observations conducted thus far, it appears appropriate to formulate some concluding considerations regarding the rarity of the engraving under investigation, following the inability to locate it within the major European museum collections. From the height of the Napoleonic era, marked by extraordinary military triumphs and firm political consolidation, the image of the Emperor stood at the center of an extensive and far-reaching iconographic production, strategically employed as a privileged vehicle for an unprecedented visual propaganda. Napoleon's final defeat at Waterloo in 1815, which culminated in his forced exile to Saint Helena, ushered in a rapid and significant transformation of the political and cultural climate, particularly with the onset of the Restoration and the new geopolitical order established by the Congress of Vienna. In this context, Napoleonic iconography gradually lost its public legitimacy: many artworks were removed and concealed in a process that, while not amounting to a systematic

[23] Delpech 1830.

damnatio memoriae in the strict sense, may nevertheless be interpreted as a form of controlled oblivion.

The rarity of the engraving under examination, however, cannot be directly attributed to a deliberate effort to erase or suppress Napoleon's image. Indeed, it dates to the mid-nineteenth century, a period during which the former Emperor's figure had already begun to undergo a process of symbolic and commemorative reinterpretation. The Napoleonic myth, nurtured in part by the Emperor himself through the widespread dissemination of portraits, busts and commemorative medals, continued to flourish posthumously, giving rise to a sustained cult that manifested itself in the ongoing reproduction of his likeness through numerous printed editions, in response to a growing commemorative and nostalgic demand.

In this light, it is plausible to consider that the rarity of the present work should not be ascribed to destruction or censorship, but rather to dynamics of collectional dispersion. It is plausible that many such engravings, originally bound within albums, were subsequently removed, sold as individual pieces, and assimilated into private collections, thereby eluding public visibility and scholarly inquiry. It is reasonable to hypothesize that the engraving under investigation followed a similar course, and that only through its recent rediscovery has it been reintroduced to the attention of art-historical scholarship, thereby regaining the cultural value and interpretive significance to which it is justly entitled.

The restoration: method and results

From a conservation standpoint, the object exemplifies several challenges typical of nineteenth-century printed materials: vulnerability to environmental fluctuations, the use of inherently unstable materials, and the cumulative impact of historical display practices. The portrait's visual and historical significance as a representation of Napoleonic iconography further underscores the need for its stabilization and preservation.

The print was mounted behind a shaped, oval passe-partout and enclosed within a deep, moulded wooden frame (Fig. 3). The frame features a brownish-gold finish and is equipped with a transparent glass layer to protect the artwork from direct contact, dust, and atmospheric particulates. On the reverse side, a rigid oval-shaped backing board is adhered to the frame (Fig. 3b). This board, a coarse, low-grade pressed paperboard, is light brown in colour and shows a distinctive diagonal corrugated pattern typical of industrially manufactured pulpboard. Embedded fibres and small particulate inclusions are visible throughout the material, indicating its composition from unrefined, recycled pulp.

At the top centre, a metal hanging ring is affixed to the board for vertical wall display. The hardware is set into the board and held in place with glue and pressure fit. The board exhibits slight warping and surface abrasions consistent with age and handling, but it remains structurally intact. Minor accretions and isolated dark specks suggest prior exposure to dust and possibly biological contaminants. In the central region, partially visible stamped or printed text is faintly readable (Fig. 3d) and may denote the name of a framer or previous owner (e.g., "Dumitru" and fragments of Romanian-language terms). This board that functioned as a dust barrier was glued to the reverse side of the frame using animal glue, as confirmed by direct observation following disassembly.

After the removal of the backing board through mechanical separation, the reverse side of the framed lithographic portrait reveals a display method that reflects traditional but now outdated mounting practices.

The object is secured within the frame using another rigid, non-archival cardboard backing, held in place by multiple metal staples inserted directly into the wooden frame (Fig. 3c). These fasteners are unevenly spaced and have been driven through the backing board at an angle, exerting localized pressure on both the board and the inner edges of the frame.

The backing board is a wood pulp-based cardboard, exhibiting signs of oxidation, acidification, and foxing. Visible on the recto of the backing board are several graphite pencil sketches and inscriptions. These appear unrelated to the object's primary function as a mount and may represent casual or incidental markings made before the board was repurposed for framing. Among these markings are rudimentary human figures, geometric shapes, scribbles, and fragments of text, which suggest prior use as a scrap or practice sheet. Faint black notches and indentations around the perimeter correspond with the mechanical attachments, metal staples, used to secure the print to the frame assembly.

Upon removal from the frame, it became evident that the lithographic print is physically affixed, using animal glue, to both the backing board and the oval window passe-partout, as well as a new backing board (Figs. 3e–f). This direct adhesion, with no interleaving or barrier layers, has caused the print to become structurally integrated into the mounting package, effectively immobilizing it and preventing natural dimensional movement in response to environmental fluctuations. The bond also prevents any safe separation of the print without introducing risk of fibre damage or surface loss, particularly in areas with significant discoloration or brittleness.

The passe-partout, cut into an oval shape to accommodate the printed image, is visibly aged and exhibits deformation, surface abrasion, and discoloration. Its bevel edge has darkened, likely due to the migration of acidic compounds or exposure to atmospheric pollutants. The mounting window is slightly irregular, and the alignment of the print within the passe-partout suggests the use of non-standard mounting procedures.

The lithograph is printed on a medium-weight, machine-made, wood-pulp-based paper with a fine-textured surface. The paper has been cut into an oval shape to conform to the format of the frame and mount, suggesting adaptation from a larger sheet or edition. The surface of the print exhibits signs of oxidative degradation, most notably foxing, visible as scattered reddish-brown spots, likely caused by metal impurities in the paper reacting with atmospheric humidity. There is a general yellowing of the paper tone, indicative of acidification over time, which is typical for wood pulp papers due to their high lignin content.[24] This discoloration is uniform across the surface, suggesting prolonged exposure to light or environmental conditions rather than isolated damage.

The image layer itself remains stable, with no significant loss of printed detail or ink migration. The black lithographic ink has retained its adherence to the paper and displays no signs of flaking, smudging, or abrasion. However, a notable oily stain is present on the left side of the image, appearing darker and slightly translucent under raking light. Additionally, there is evidence of improper white pigment integration, likely from a past

[24] Małachowska et alii 2020.

attempt to retouch this area. The white medium used is visually incompatible with the original surface, exhibiting differential reflectivity and a slightly raised texture. It was not professionally matched and introduces further visual and chemical inconsistencies.

The backing board, being of an acidic, wood-pulp-based composition, actively contributes to the chemical degradation of the print. The combined adherence to two deteriorating substrates presents a serious conservation challenge, requiring careful mechanical or chemical separation if treatment is to proceed.

Passe-partout and backing board-removal: revealed conditions

Initially, the surface was gently dry-cleaned[25] to remove loose surface contaminants, particulate matter, and biological accretions using soft brushes and vulcanized rubber sponges. This step was critical in reducing the risk of embedding dirt into the paper fibres during humidification.

Following dry cleaning, local application of steam[26] was employed to soften the animal glue securing the print to both the passe-partout and the backing board. Controlled application of moisture allowed gradual detachment with minimal mechanical stress, preserving the paper's structural integrity and surface detail. But first preliminary testing of inks and paper were done to determine the sensitivity of the media to solvents, moisture, and steam.

After the removal of the passe-partout, it was observed that its exterior perimeter had been lined with a laminated white paper layer, adhered to the passe-partout to give it a smoother and more refined appearance. This decorative layer was slit into evenly spaced flaps, folded inward to conform to the oval shape of the window opening.

Similarly, removal of the backing board, also mounted with animal glue, revealed staining and adhesive tide lines around the perimeter of the print. These darkened margins mark the extent of acidic migration from the deteriorating materials in contact with the print (Fig. 3g).

Conservation treatments: washing and mending

The removal of both the passe-partout and the backing board exposed the full extent of the print's physical and chemical degradation, thereby enabling the implementation of appropriate interventive conservation measures. Among these, the print underwent washing by immersion,[27] a treatment aimed at reducing staining and solubilizing acidic degradation products embedded in the paper fibres. Conducted in a controlled environment using deionized water and supported by blotters, this procedure minimized mechanical stress on the sheet. The immersion process effectively lightened overall discoloration, reduced residual animal glue deposits, and enhanced both the visual appearance and the flexibility of the support (Fig. 4a).

After washing, the verso of the print revealed additional inscriptions and physical characteristics previously obscured. A brief annotation in blue ink reading "oval" appears near the edge, likely a mounting instruction indicating the intended format for display.

[25] Cowan, Guild 2001, 5, 7.

[26] "BPG Hinge, Tape, and Adhesive Removal" / AIC Wiki.

[27] Banik, Bruckle 2018, 372–374.

More extensive notations in graphite pencil describe the positioning of the print within its former passe-partout, providing further evidence of past framing techniques to custom-fit the print to a specific display context, presumably dictated by the shape of the passe-partout opening.

Moreover, close examination of the sheet edges revealed irregular hand-cut margins. These uneven contours indicate manual trimming to conform the print to its oval passe-partout. The lack of uniformity, along with the informal nature of the inscriptions, supports the hypothesis that the mounting was executed in a non-professional context. This intervention, while functionally effective for display, compromised the original format of the print.

Following the washing treatment, previously obscured structural damages became apparent. Two small tears along the print's edges, likely concealed by prior adhesive attachments, were revealed, along with a single perforation located at the edge. This latter damage may have resulted from mechanical stress during earlier handling or framing procedures. While localized, these vulnerabilities pose a risk to the long-term stability of the object and will necessitate targeted repair and consolidation using reversible, conservation-grade materials and techniques.

To stabilize the identified damages, mending was performed on the verso using long-fibered Japanese tissue and a starch-based adhesive,[28] both selected for their proven reversibility, chemical stability, and compatibility with historic paper supports. The adhesive was applied to the repair tissue on an inert surface using a stiff brush, allowing for controlled application and minimizing the introduction of excess moisture. The reinforcing strips were then positioned over the tears, and the fibres were gently feathered outward and pressed to ensure complete contact and a gradual transition into the surrounding paper (Fig. 4b). This technique resulted in unobtrusive yet mechanically sound repairs that reinforce the weakened areas without compromising the material authenticity or visual coherence of the print.

Conservation treatment conclusion

The conservation treatment of the nineteenth-century lithographic portrait successfully addressed the complex challenges posed by the object's material instability, outdated mounting methods, and cumulative environmental degradation. Careful disassembly and documentation revealed extensive use of non-archival materials, such as animal glue and acidic backing boards, which contributed to the print's physical and chemical deterioration. Targeted interventive measures (including controlled steam application for adhesive softening, wet cleaning to reduce staining and acidity, and meticulous tear mending with stable, reversible materials) have significantly improved the structural integrity and visual clarity of the work (Fig. 4c–d).

The treatment not only stabilized the print but also facilitated a deeper understanding of historical framing practices and their long-term effects on paper-based artworks. Moving forward, the print will be remounted using conservation-grade materials in a manner that ensures long-term preservation while respecting the historical context of the assemblage.

[28] Scheweidler 2006, 96–97.

This case underscores the critical role of informed conservation practices in preserving cultural heritage objects for future generations.

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Fig. 1. Carle Vernet, "F. Delpech's Lithographic Print Shop" *(Imprimerie Lithographique de F. Delpech),* litograph on paper, 17 × 24.5 cm, 1818, RISD Museum.



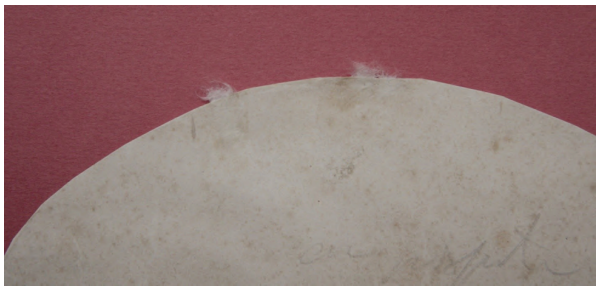
Fig. 2. François Gérard (1770–1837), *Napoleon Imperator*, oil on canvas, 223 cm × 143 cm, 1805, Château de Versailles.



Fig. 3. Details of the print prior conservation: **a–b.** front and back sides; **c.** ensembleafter removing the backing board, back side; **d.** detail of the backing board, text; **e–f.** print structurally integrated into the mounting package, front and back sides; **g.** mat board removed from the print, showing evenly spaced flaps (photos by the authors).



a.



b.



c.



d.

Fig. 4. Details of the print: **a.** washing; **b.** tears mending; **c–d.** print after conservation, front and back sides (photos by the authors).

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BEFORE FRIEDRICH (FRITZ) BALTHES. THE NINETEENTH-CENTURY ARCHITECTURE OF THE FORMER EVANGELICAL SCHOOL IN GHERDEAL

ILEANA BURNICHIOIU*

Abstract: At the eastern edge of Sibiu County lies a small village of medieval origin Gherdeal (well known in today's media), whose Evangelical Saxon elementary school was among those redesigned by the architect Fritz Balthes (1882–1914). This occurred in 1912, and the following year, the school was converted into a multifunctional building intended to meet several needs of the local community. These aspects are already largely familiar, as Balthes's work has, over the past decade, attracted increasing interest, materialised in projects and studies dedicated both to understanding the diversity of his oeuvre and to safeguarding the artistic heritage he generated.

The present study turns its attention to the earlier phases and subsequent transformations of the school's architecture before Balthes intervened in Gherdeal, tracing its history up to the present day. The analysis draws upon present field data, both new (2023–2024) and archival surveys of the building (produced by three different authors), as well as dendrochronological investigations. In this way, the older nucleus of the school – dating to the mid-nineteenth century – is reassessed. This earlier construction was based on drawings signed by Mathias Joseph Angermann (1808–1880), an engineer and former imperial official of the Cincu Seat, whose professional activity was varied yet remains almost unknown; here, we provide a few initial reference points. In the history of the Gherdeal school, the "Angermann" phase was followed by an attempt at adaptation and enlargement in 1905 (never realised), and only thereafter by the "Balthes" phase. The case examined represents a distinct example of Transylvania's historical educational architecture, which has attracted insufficient attention in terms of in-depth study and preservation, despite occasionally being included in the *List of Historical Monuments*.

Keywords: Transylvania, elementary schools, Saxon village architecture, community architecture, Mathias Joseph Angermann

Rezumat: La limita estică a județului Sibiu, există un mic sat cu origini medievale, Gherdeal (bine cunoscut în mass-media de astăzi), a cărui școală primară a sașilor evanghelici a fost reproiectată de arhitectul Fritz Balthes (1882–1914). Acest lucru s-a petrecut în 1912. Anul următor, școala a fost transformată într-o clădire multifuncțională, menită să răspundă mai multor nevoi ale comunității locale. Toate acestea sunt deja în bună măsură cunoscute, activitatea lui Balthes bucurându-se în ultimul deceniu de un interes sporit, concretizat în proiecte și studii dedicate atât înțelegerii diversității operei sale, cât și protejării patrimoniului artistic pe care l-a generat. De aceea, lucrarea de față vizează vechimea și transformările prin care a trecut arhitectura școlii anterioare lui Balthes la Gherdeal, până în zilele noastre, creionate cu ajutorul datelor actuale din teren, al releveelor noi (2023–2024) și vechi ale clădirii (cu trei autori diferiți), dar și cu ajutorul unor analize dendrocronologice. În acest mod, este datat nucleul mai vechi al școlii, de la mijlocul secolului al XIX-lea. Acesta s-a construit pe baza unor desene semnate de Mathias Joseph Angermann (1808–1880), inginer și fost funcționar imperial în Scaunul Cincu, cu o activitate diversă, dar aproapenecunoscută,

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pentru care oferim aici câteva repere de început. În istoria școlii din Gherdeal, etapa „Angermann" a fost urmată de o tentativă de adaptare și extindere încă din anul 1905 (nepusă în practică), și abia apoi de etapa „Balthes". Cazul analizat este un exemplu aparte dintr-o arhitectură istorică a educației din Transilvania față de care nu există suficient interes pentru cunoaștere aprofundată și pentru prezervare, chiar dacă se regăsește uneori în *Lista Monumentelor Istorice*.

Cuvinte cheie: Transilvania, școli elementare, arhitectură rurală săsească, arhitectură comunitară, Mathias Joseph Angermann

Introduction

Gherdeal (German: Gürteln; Hungarian: Gerdály) is a small village of medieval origin located along the eastern edge of Sibiu County in a remote and difficult-to-access area within the commune of Bruiu (southern Transylvania). Throughout the twentieth century, the settlement experienced a demographic decline from which it has yet to recover.[1] This decline has had significant adverse consequences for the local architecture – ecclesiastical, residential, and defensive – as well as for local folk art.[2] This study focuses on the architecture of the former Evangelical elementary school in the village – a case that, despite being highly vulnerable from a conservation perspective, has been largely neglected by the literature.[3]

Published information on the architecture of the Gherdeal school has so far been limited and largely unilateral, relying on archival sources (both visual and textual) concerning the period of 1912–1913, when architect Friedrich (Fritz) Balthes (1882–1914) transformed the building into a multifunctional facility designed to meet several needs of the local Evangelical community.[4] This architect, who also played a distinctive cultural role in southern Transylvania, remained forgotten for a long time.[5] However, approaching the centenary of his death, a broad group of scholars began studying his archive – including original architectural surveys – to document his built heritage (which had fallen into disrepair as the Saxons emigrated from Transylvania) and attempt to have representative buildings of his included in Romania's *List of Historical Monuments* (LHM).[6] Between

[1] Abandonment and isolation have transformed Gherdeal into one of the most publicised villages. In 2017, it counted only seven inhabitants – four Romanians and three Saxons (Rudolf 2021, 156). Following a series of property transactions, the houses now all have owners, though most reside in the village only temporarily, either during holidays or while carrying out renovations.

[2] It is not only the architecture – namely the monument churches of both the Saxons and the Orthodox Romanians (St. Nicholas, pre-1800), the Evangelical parish house, and the dwellings in general – that deserves attention, but also the Saxon folk art, already promoted by E. Antoni (Antoni 1935, 217–224).

[3] In fact, no historiography of school architecture in rural Saxon communities exists for Transylvania (such as can be found in other cultural contexts), and their protection – even for those included in Romania's *List of Historical Monuments* (LHM) – remains largely formal. An exception, prior to the schools of Balthes among the Saxons, may be considered the "Latin School" in the commune of Cincu (Brașov County), published by Minghiat, Lucescu, and Pop (2001–2003, 65–75), although it has not benefited from a thorough, multidisciplinary investigation. Otherwise, many examples face a sad fate, even when included in the LHM: the school in Bruiu is up for sale; that in Cincșor (Brașov County) was converted in 2014 and remains unlisted; while the one in Cața (1884) (Brașov County) has undergone improper interventions etc.

[4] Bucur, Balthes [2016]; Rudolf 2021; Foth 2022a.

[5] This formed part of a broader project, as detailed by the editors of the 2021 volume (Rudolf, Fabini 2021, 3–5).

[6] Rudolf 2021, 156–159.

2014 and 2022, Balthes's work was the subject of exhibitions, lectures, articles, brochures, catalogues, and a volume of studies featuring the rural elementary schools he designed in the villages of Cincșor (1909–1911),[7] Bruiu (1911–1912), Gherdeal (1912), and Veseud (1913–1914). For Gherdeal specifically, notable references include Gerhild Rudolf's article, the documentation of architect Ioan Bucur (in collaboration with the MONUMENTUM Association and Hermann Balthes for LHM listing and promotion),[8] and Gyöngyvér Foth's doctoral thesis,[9] which analysed Balthes's architectural work within the broader framework of Saxon contributions to early twentieth-century Transylvanian architecture and the development of a national style among Transylvanian Saxons in relation to the German architectural movement. Across all of these works, the presence of a school in Gherdeal before that designed by Balthes could only be approximated to the seventeenth or eighteenth century.[10] At that time, the building was abandoned, with several components in ruin (e.g., stair access, roof, interior walls, ceiling), and the prospects for detailed field research were nonexistent. This approximate dating was formalised when the building was officially added to the LHM in 2017.[11]

Since 1990, the Gherdeal school building has undergone multiple phases: abandonment and destruction of its architectural components and finishes; restitution; sale; listing; and emergency intervention (2018–2020).[12] On several occasions prior to 2020, interventions were limited to the removal of debris, the dismantling of elements at risk of collapse (including a small bell tower on the roof), repairs to degraded masonry, and the implementation of wooden reinforcements and temporary roofing (Pl. I). However, only after 2022 did specialised studies commence; soon after, in 2023–2024, the development of a new architectural project for the revitalisation of the site became possible.[13] On this occasion, available archival data – both published and unpublished, visual and written – were critically correlated with dendrochronological analyses (B. Tóth, Anno Domini Dendrolab, Miercurea Ciuc, 2024) and new non-invasive surveys of the elevations (I. Burnichioiu, L. Kiss) and foundations (L. Barna).[14]

This article outlines the local context in which the monument emerged, presents the current academic field surrounding this case, and highlights the results of recent research conducted in 2023–2024, placing a particular emphasis on the pre-Balthes school architecture.

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[7] In Cincșor, Balthes also took over an older school building to extend it. I would like to thank Radu Bârlă for several suggestions concerning this case and the photographer J. H. Briegel referred to in this paper.

[8] Bucur, Balthes [2016], 26–28.

[9] Foth 2022a, 163–165; see also Foth 2022b.

[10] An exception is Fabini (1998, I, 257), which mentions the construction of a school in the mid-nineteenth century.

[11] Costiuc 2017, 93. The designation under which it was listed – "Evangelical Elementary School" – is conventional and does not encompass all the functions the building once had (SB-II-m-B-21135).

[12] The building is currently owned by the ANIMA VIVA Foundation, represented by Atena Iliescu.

[13] *Consolidarea, restaurarea și punerea în valoare a fostei Școli elementare evanghelice din Gherdeal, com. Bruiu, jud. Sibiu* ("Consolidation, restoration, and valorization of the former Evangelical Elementary School in Gherdeal, Bruiu Commune, Sibiu County"), carried out by the MODUL 28 architecture office in Sibiu and supported by the National Heritage Institute (NHI).

[14] See the Bibliography list.

Historical context of the local area

Reliable attestations of medieval settlement in Gherdeal may be traced as far back as the third decade of the fourteenth century (*Valle Gertrudis*, *Gyrtlen*), although they are sparse and limited in content. They primarily document conflicts between Saxon inhabitants and neighbouring villages, the village's affiliation with the Cincu Seat, and losses incurred due to fires, natural disasters, or invasions (by Turks, Tatars, and Kuruc forces).[15] At the centre of the village, which is dispersed along several valleys, a fortified church stands on slightly elevated ground with enclosing walls and flanking towers, though its origins and subsequent transformations have yet to be fully understood.

Prior research on external attacks has largely supported the hypothesis that the fortification occurred in line with those in nearby villages,[16] namely sometime between the second half of the fifteenth century and early in the sixteenth century. From then onward, some documents record donations (in cash and building materials) or tax exemptions granted by the Sibiu Province to Gherdeal.[17] In 1520, the village received funds for completing the fortifications. A few years later, in 1532, sources indicate that the village comprised just fourteen taxable households, making it one of the smallest in the area.[18]

This modest settlement pattern is also reflected in the Josephinian survey (1769–1773) (Pl. II/1), although a group of Romanians joined the Saxon population after 1700.[19] In the subsequent survey (1869–1887, 1:25,000), two churches are represented: the Saxon church near the approximate village centre (Pl. II/2), accompanied by a building to the northwest that's presumed to have been the school, and the Romanian church at the far southwest end of the village. The number of houses in the village appears to have increased, as confirmed by written sources, which recorded ninety-five and ninety-nine houses in 1882 and 1891, respectively. In 1869, Gherdeal (Târnava Mare County) had 444 inhabitants; however, the population soon began to decline, falling to 354 by 1910.

Former elementary school in Gherdeal: current state of preservation

The monument is located at the centre of the settlement, at the northwest edge of the plot occupied by the fortified church, facing the road that leads into the village. Incomplete joinery, deteriorated plaster, and a roof covered with a temporary sheathing give the building today an even more desolate appearance than in 2014–2016 (Pl. I/2–4).

Although prior research has not delineated different construction phases on published plans or undertaken any detailed analysis, earlier research has already indicated that the building consists of an older core – the evangelical elementary school – that Fritz Balthes extended northwards with a ground floor reserved for the community and an upper floor

[15] On theories of colonisation and the evolution of the medieval village, see Nägler (1981, 76); Nussbächer, Klima (1985, 4); Fabini (1998, 257). Regarding the various historical name variants – initially connected with St Gertrud, later evolving in the Middle Ages into forms such as *Gyrtlen* and then *Gürtlen* ("belt") –see Suciu (1967, I, s.v. Gherdeal) and Szabó (2003, s.v. Gherdeal).

[16] For example, Ruja, Stejărișu, Netuș, Noiștat, Brădeni, and Iacobeni.

[17] Gheorghiu 1985. In the LHM: sixteenth–nineteenth centuries.

[18] Fabini 1998, 257.

[19] Information on the Romanian population of the eighteenth–nineteenth centuries and on the Orthodox church has been synthesized by Abrudan 2023, 29–55.

dedicated to the school.[20] Consequently, the two wings differ in volume, height and façade treatment: the southern wing is lower, with a slightly recessed façade and an approximately north–south roof ridge orientation, while the northern wing is developed vertically, with the roof ridge oriented east–west. The site topography causes the eastern part of the building to be almost entirely embedded at ground-floor level (Pl. I/3–4). In what follows, the two wings will be detailed with field data, which, together with archival sources, will aid in more precisely determining the building's phases of construction and spatial adaptation.

Southern wing

The southern wing rises on an approximately rectangular plan measuring ca. 12.50 × 9.45 m externally, comprising a double tract. The perimeter walls are approximately 0.65 m thick at the ground-floor level and 0.50 m thick at the upper-floor level. The main façade has two opening axes due to the recovery of a previously walled-up opening during recent interventions (Pl. I/2–3); these openings differ in size, with areas of degraded or intentionally removed plaster revealing the original stratigraphy.

The southern façade, also with two opening axes, serves as the access façade, with the entrance located along the eastern axis, framed by edges repaired with recent brickwork. Adjacent to the entrance are the remains of a stone protective wall in an "L" shape. The rear façade exhibits even more extensive degradation and visible signs of intervention. Severely deteriorated masonry immediately to the right of the entrance was restored after 2018, resulting in the partial loss of the original wall stratigraphy (Pl. I/2). Surviving elements include a portion of plaster painted white that bears some old scratches, one of which dates back to 1890, as well as a remnant of the building's original plinth. The northern wall – formerly the northern façade prior to the "Balthes" phase – was reconstructed on its upper floor, leaving only the lower sections with the original plaster painted white and bush-hammered (Pl. V/4).

Inside, the ground floor of the southern wing features two rows of enfilade rooms. In the eastern tract, aligned with the entrance axis, only three compartments survive, though the wall elevations indicate that there were originally four; between P05 and P06, material breaks are evident. The rooms retain the beams of the original ceilings in view. In contrast, the western tract (c. 4.25 m wide) comprises two spaces separated by a masonry wall aligned with the chimney. In both spaces, the vaults with three pairs of penetrations are preserved, but the old plaster survives only in the southwestern space (Pl. I/5, V/1–2).

The second level is accessible directly from the hillside into a rectangular space, the long walls of which still bear traces of a thin brick wall – approximately the width of a single brick – that was removed several years ago. On the left, a similar wall defines room E03. The former subdivision into three spaces explains the presence of three doors leading to the front tract, including E01 and E02 (two rooms corresponding to the vaulted rooms on the ground floor).

At this level, the rooms have flat ceilings, some with exposed beams finished with chamfered corners, while others (eastern rooms) are plastered over a reed-lath support. The degraded plaster exposes traces of interventions, indicating that the dimensions of the spaces in the eastern tract have undergone further modifications over time; originally,

[20] Bucur, Balthes [2016]; Rudolf 2021; Foth 2022a.

the tract was subdivided into four compartments aligned with the ground-floor partition walls (Pl. I/5–6). Around the windows and some doors, traces of widening or adaptation to different joinery are evident. Likewise, the stylistic inconsistency of the joinery is indicative of multiple distinct intervention phases. In addition, the degraded floors were removed after 2018, and the northern masonry wall was reconstructed along with a portion of the western side of E02 (to the right of the window).

Above the three-pitched roof of the southern wing, only a single brick chimney remains; a second chimney, located near the junction with the northern wing, has been removed (Pl. I/2–4). The roof slopes still feature small dormer windows with wooden frames along the chimney line. The roof structure preserves part of the original oak framework but now features recent interventions as well. The original section, alongside some beams from the ground- and upper-floor ceilings, provided relevant samples for dendrochronological analysis.[21]

The construction material of this wing is mixed, with varying proportions: Stone predominates in the eastern ground-floor tract; similarly, the masonry of the western rooms up to the exterior stringcourse and the springing of the vaults is mostly stone, while the rest was built primarily with brick, including the moulded cornice with several recesses.

Among the wall finishes, a notable primary layer follows the construction material and is visible to varying degrees on all façades, including the northern façade. This layer consists of lime-and-sand plaster, over which a white-painted surface was systematically hammered. Contemporaneous with this layer are a wide band along the edges of the ground-floor windows and the margin of a former niche between the windows (Pl. II/4); a moulded stringcourse in plaster on a brick support at the transition between the ground floor and the upper floor; and traces of marginal bossages on the main façade, arranged vertically (south and north) (Pl. II/4). All of these elements indicate that at least the main façade was decorated, albeit in a very restrained manner. At the base of the eastern masonry wall, a relief plaster sample suggests that this wing also featured a plinth.

The white-painted, hammered layer is overlaid by another plaster layer, upon which, at the upper floor between the windows, traces of an inscription were scratched. Although barely visible now, it previously read as follows: ÁG. HITV. EV. NÉPISKOLA / EVANG. VOLKSSCHULE A.B.[22] These two lines, presenting the name of the public school in Hungarian and German, were framed at least once with a polylobed frame – now only faintly discernible – and featured a mirrored vine motif decoration at the lower end (Pl. V/5–6).

The same lime-and-sand plaster covered with white paint was also observed on the interior walls. Additionally, on the west walls of the large rooms on the upper floor, two surfaces with polychrome stencil painting were identified: fragments of two Secession-style friezes – one with roses and buds, the other with an abstract, geometric motif – extending between the window arches and the ceiling-beam level (Pl. V/7–8).

Northern wing

The northern wing also comprises two levels (albeit with different heights) and is in slight projection (ca. 0.65 m) relative to the southern wing. The wing rises on a plan

[21] Tóth 2024.

[22] Rudolf 2021, 157.

measuring 10 × 9.15 m externally, with perimeter walls 0.55–0.60 m thick on the ground floor and 0.50 m thick on the upper floor. The roof is a double-pitched structure oriented east–west; it features trapezoidal gables on the east and west façades as well as brick cornices, either set back in plaster or protected with tiles.

The western façade presents four wide rectangular openings with two different sets of dimensions, contrasting the composition of the southern wing. The northern façade has only a single opening axis on its eastern end: a rectangular ground-floor entrance and a wide, semicircular upper-floor window. To the left of the entrance, there is also a stone protective wall. On the eastern rear side, façade degradation and traces of arches indicate a now-demolished rectangular structure that provided access to the upper floor, its roof intersecting with the trapezoidal gable cornice. At ground level, another entrance with degraded joinery was used to access the upper-floor spaces.

Internally, the floors have now collapsed. In the eastern half, a wooden support structure remains, along with traces of brick masonry reconstructions from recent interventions. On the ground floor, access is available from the northern side through a windfang and a vestibule, leading into a large hall measuring 7.95 × 5.93–6.00 m. Evidence from the upper floor suggests a similar subdivision and northern access. The foundation consists of stone, while the superstructure combines brick and stone or, at the upper level, is built entirely of brick.

The roof structure of the northern wing has lost multiple base elements, with some at the extremities suspended in the air. Only window frames and mullions survive; the remaining components have either disappeared or been stored by the owner. While a few door joineries survive, the floorboards have been lost. Some elements of the rainwater drainage system remain at the corners.

*

Currently, at the Gherdeal school, structural collapses have been halted; however, the roof remains in a problematic state. Events in recent years have affected the building's authenticity, and understanding historical interventions concerning the elevations and the remnants of the original fabric has become a more complex endeavour. This underscores the need to correlate field data with archival survey information (Pl. III). These sources complement an old photograph (already published) showing the school with just a single wing (previously referred to as the "southern wing"), i.e., the pre-Balthes configuration.[23]

The pre-Balthes school: the "Angermann" phase

The three buildings that still dominate the centre of the village – the Saxon church with its western tower (surrounded by a fortified enclosure), the school, and the Evangelical parsonage – appear together in a winter photograph by Josef Heinrich Briegel, taken prior to the execution of Balthes' project (1912–1913) (Pl. II/3)[24]. The school, situated to the left (northwest of the church), is a two-storey building with a hipped roof pierced by a

[23] Fabini 1998, 257.

[24] It is possible that J. H. Briegel (1854–1942), a photographer known especially for his work in Sibiu and Făgăraș, took this photograph between 1893 and 1910, during the period when he had his studio in Făgăraș, "opposite the castle gate." For more on his activity, see Miklósi-Sikes 2001, 105.

central chimney, forming a compact volume. The main (western) façade features four rectangular windows arranged along two widely spaced axes. Several architectural details are discernible: the transition between levels, the plinth, and two vertical rows of marginal bossages at the extremes. On the southern side, at the ground-floor level and at the edge of the slope, a protective wall can also be observed.

Briegel's photograph serves as a valuable visual document, providing a *terminus ante quem* for the elementary school building. Likewise, the topographical survey from 1869–1887 (Pl. II/2) marks a construction northwest of the Saxon church that may correspond to the school. More precise data are derived from older archival surveys and from a 2024 dendrochronological analysis, which will be referred to below.

In the archive preserved at Teutsch House in Sibiu,[25] the surveys produced in 1912 for Gherdeal by Balthes' office are held, alongside two older plans (Pl. III/1–2). One, undated, bears the signature of engineer Mathias Joseph Angermann;[26] the other, from 1905, is by Johann Guip from Merghindeal[27] and was previously mentioned by Gerhild Rudolf.[28]

Under the title *Plan zu einer neu zu erbauenden Schule in Girtlen* ("Plan for a new school building in Gherdeal"), the first sheet, executed in two tones (grey and pink), features representations of the main façade, ground-floor and upper-floor plans, a roof plan, and a transverse section (Pl. III/1). All elements depict a simple, compact building on a rectangular plan subdivided into six spaces on two levels. The spaces are arranged symmetrically in two groups – north and south – although the drawings do not indicate how they communicate through the central area, which was to house the heating system. On both sides, supporting walls for the sloping terrain are sketched in an "L" shape. The roof, under a four-pitched covering, exhibits an eclectic character. The main façade shows a plinth, lateral bossage decoration, and a stringcourse between levels. No other significant components (e.g., vaults, interior/exterior staircases) are marked on the drawings.

Comparing these sketches with Briegel's photograph and current surveys indicates that this sheet represents the design according to which the pre-Balthes school was constructed. The drawing reveals that the main façade was conceived with three axes, explaining the present spacing between the openings. Between the rectangular windows, each with six panes, there is a central axis with two semicircularly closed niches at the upper ends (Pl. III/1). The upper-floor niche is most likely located beneath the inscription and decoration from the "Balthes" phase, meaning that it is unlikely to be physically recoverable despite it possibly containing elements – inscriptions or decorative features – that would have given the building a more personalised character.

Dendrochronology – done on several relevant samples with numerous growth rings (including some with Waldkante) identified in the ceiling beams of the ground floor, upper floor, and roof structure[29] – has provided crucial support for dating the school designed by Angermann. These analyses have demonstrated that the last timber felled for the first

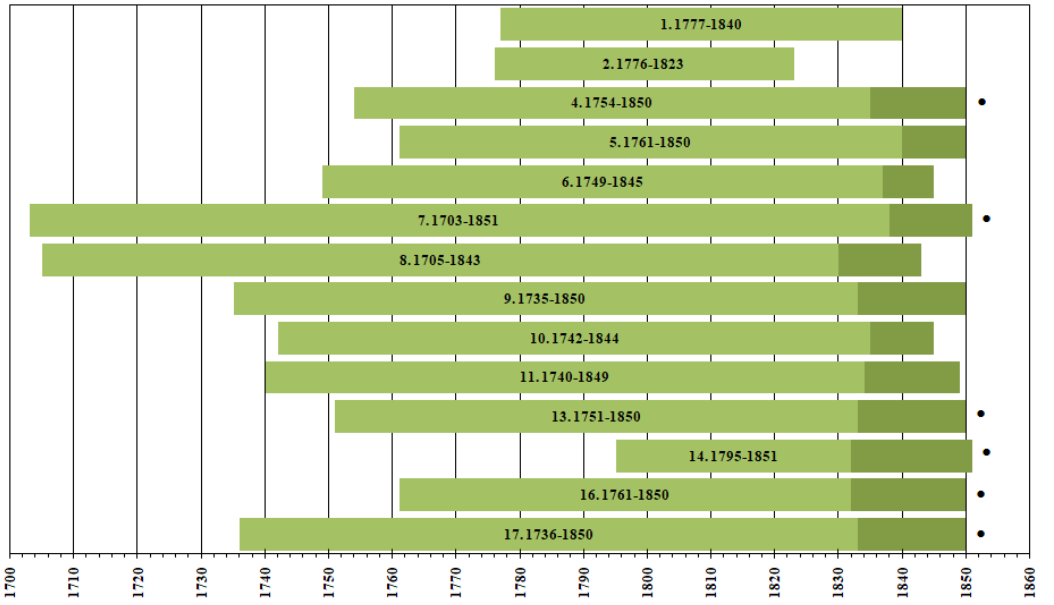
[25] I.e., "Friedrich Teutsch" Centre for Dialogue and Culture of the Evangelical Church A.C. in Romania (Sibiu)/ Begegnungs- und Kulturzentrum Friedrich Teutsch der Evangelischen Kirche A.B. in Rumänien (Hermannstadt)/ Centrul de Dialog și Cultură „Friedrich Teutsch" al Bisericii Evanghelice C.A. din România.

[26] ZAEKR, Gürteln, 604/2916 (old reference: 400/234/260).

[27] ZAEKR, Schulhaus Gürteln, 604/2917 (400/234/260).

[28] Rudolf 2021, 157.

[29] Seventeen samples were collected in total, Tóth 2024.



Tab. 1. Chronological relationship of the wood samples (shaded: sapwood rings; black dot: *Waldkante*) (Anno Domini Dendrolab, Miercurea Ciuc, 2024).

phase of the school dates to the winter of 1850/1851 and the summer of 1851 (Tab. 1). Accordingly, the Angermann-phase school may be dated no earlier than 1851.

It should also be noted that geotechnical surveys of the building's foundations did not indicate any prior construction,[30] although Angermann's plan specifies a new school building. Therefore, the possibility of the future identification of an earlier village school that predates the mid-nineteenth-century structure cannot be excluded – potentially even within the fortified church, as has been documented in other cases.

Mathias Joseph Angermann (1808–1880)

The engineer Mathias J. Angermann is scarcely known even within Saxon historiography. He appears in connection with Gherdeal, but not concerning the school – rather, in relation to the church. H. Fabini's atlas credits him as the author of the current two-storey building housing the southwestern entrance to the fortified church in Gherdeal (Pl. V/1).[31]

Angermann was born in Cincu (where his father held the office of royal judge) lived from 1808 to 1880. He studied in Vienna, at the Polytechnic Institute, until 1829 and subsequently worked for several decades in southern Transylvania, primarily in the Cincu district, although he also worked in Braşov before (1830–1836).[32] His positions and

[30] Barna 2022, 8–12 and oral information provided by Cristinel Plantos.

[31] Drafted "J. Angermann" (Fabini 1998, 257).

[32] Szabó, Szögi 1998, 55; Stenner 1916, 4. I would like to thank my colleague Zsolt Kovács for the discussions and suggestions concerning the biography of this engineer, who was part of the local elite, as well as for his other contributions to the study.

achievements may presently be reconstructed only from scattered references in nineteenth- and twentieth-century publications, although additional archival information likely exists. In 1840, he was appointed the forest master (*Forstmeister*) and district engineer (*Kreis-Ingenieur*) of the Cincu district.[33] Erhard Antoni attributed to him the design of a cemetery chapel – built in the Doric style with four tall wooden columns and rich detailing – constructed in the Cincu in 1842. The same author reported that Angermann also built houses in the area,[34] constructed the road between Cincu and Cincșor, and drafted a restoration plan for the fortified church in Bruiu (which was never implemented).[35] One unverified source suggests that the Evangelical church in Făgăraș was built in line with his plans in 1841–1843.[36] On several occasions (e.g., 1855, 1872), Angermann (recorded as Máthyás) is also listed as a tax collector.

His projects in Gherdeal – the gatehouse of 1846 and the school of 1851 – provide some guidance regarding Angermann's stylistic approach: sober, symmetrical forms with compact volumes and central axes marked by niches or openings, all combined with restrained decoration. This repertoire includes marginal flat-relief bossages and elongated plaster bands on larger wall surfaces or around windows. Openings may be rectangular or semicircular, with some functioning as skylights, as seen at the Gherdeal gatehouse or the Făgăraș church. Several features – such as the treatment of the centrally located ground-floor entrance with a wide corner recess and semicircular closure, the central-axis niches of the school, and the vaults – suggest that the interior reconstruction of the church within the fortified enclosure in Gherdeal (dated by historiography and the *List of Historical Monuments* to the mid-nineteenth century) may likewise have been based on a project designed by Angermann (Pl. VI). However, such clarifications, which might emerge from the parish archives, remain a task for future research.

The first proposal for school expansion: Johann Guip from Merghindeal, 1905

As revealed by archival research, another proposal for the expansion of the Gherdeal school existed before Fritz Balthes' project. This project was signed by a certain Johann Guip from Merghindeal (an otherwise unknown figure) in 1905, entitled *Bauplan für den Anbau eines Lehrsaales an die ev. Volksschule A–B in Gürtlen* ("Construction Plan for the Extension of a Classroom to the Evangelical Public School A–C in Gherdeal"). This proposal was never executed; however, a minimal comparative analysis proves it to be useful for research, in relation to Angermann's project, today's construction details, and Balthes' project for Gherdeal (Pl. III).

In Guip's drawings, the existing school's ground-floor and upper-floor plans are shown in black, the proposed extension in red, and modifications to the preexisting structure in yellow and blue. These details must be critically assessed and verified during the execution of the new project, as some inaccuracies or omissions are already apparent. For instance, the ground floor does not indicate functions, and the two vaults do not correspond to

[33] *Siebenbürger Wochenblatt*, 4/101 (17.12.1840), 412.

[34] A house project from his early years (1826) is held in the National Archives of Hungary (MNL OL, T 75–No. 46/1–2).

[35] Antoni 1973, 6. At the time Antoni was writing, the chapel was in ruins.

[36] *Die Generalkirchenstation*, 1174; Fabini 1998, 190.

those present today. Conversely, the upper-floor plans note the intended use of each room, suggesting the arrangement of a teacher's residence. Entrances were placed on the east via two staircases connected to a hallway and a larger, rectangular kitchen located centrally in the eastern tract, with specific installations near the building's central chimney. The kitchen would have had two symmetrically placed windows on the east wall, flanking the entrance. The partition wall in the eastern tract, provided in Angermann's plan and aligned with one of the staircases, is not represented in Guip's proposal and may not have ever existed. Moreover, a pantry is indicated to the left of the kitchen.

The two large front rooms would have had only one access point, each from the kitchen, with intercommunication between them; here, two openings are marked that do not appear in Angermann's plan but are visible today, one of which was reused or enlarged by Balthes (Pl. IV/b). The windows of the two western rooms on the upper floor were to be modified to align with the new northern extension (marked in red), corresponding to the classroom (*Lehrsaal*).

In Guip's proposal, the new wing was to have the same width as the original core (9.45 m), a length of 8.48 m, and a masonry height of 6.70 m. It was also to have two levels, the lower with small vaults and the upper with a flat ceiling. Guip did not depict the building's façade (or, at least, such a sketch did not survive), but the plans indicate that the placement of openings in the new wing respected the alternation of axes with niches and windows on the preexisting western façade, designed by Angermann. For the northern extension, Guip proposed a ground-floor entrance and a window on the west side, with a niche and a window above on the upper floor. On the north façade of the extension, two window axes are drawn, while the east side shows solid walls without openings. On the shared southern wall, the proposal includes the infill of one window and the creation of a door connecting the classroom to the hallway in the original building, with access from the hillside (Pl. III/2).

The "Balthes" phase (1912–1913)

Guip's project was never executed; just a few years later, in 1912, the Evangelical community of Gherdeal commissioned Fritz Balthes to transform the preexisting school into a teacher's residence and to construct new spaces to meet the needs of both the school and the community (Pl. III/3).[37] At that time, Balthes was also working for two nearby Evangelical communities: in Bruiu, at the school; and in Șomartin, at the community hall. Earlier, he had designed school buildings in Mediaș (1909–1912) and Cincșor (1909–1911).[38] As in other cases, he developed his project in Gherdeal within the context of the fortified church and the Saxon parsonage, designing a multifunctional building (Pl. III/3)[39] as well as a mixed sanitary installation to serve it (Pl. IV/2).[40]

[37] About the contract (now preserved in the Teutsch House archive): Rudolf 2021; Foth 2022a.

[38] Lißke 2021, 146.

[39] The architectural surveys discussed here were promoted and published already (in selection) by both Rudolf 2021 and Foth 2022b, figs. 144–146.

[40] To date, we have not identified the location where it was placed. There would, however, have been sufficient space on the plateau east of the school.

The preexisting school was allocated for office space, a cellar (ground floor), and a teacher's residence (upper floor). In his survey – depicted with grey hatching and including more architectural details than the plans of Angermann or Guip – Balthes proposed ground-floor interventions to widen or close five openings (doors to the northwest room and windows on the north side) as well as the infilling of a niche on the main façade. In the eastern tract (noted as *Keller*/cellar), he proposed the partial demolition of the central wall (highlighted in yellow) to create a wider opening, with the rooms arranged in enfilade. Access to the vaulted ground-floor rooms (*Kanzlei*) was to be available only via a single door from the southwest room.

The survey of the upper floor of the preexisting school shows that most of the modifications at this level were proposed by Balthes. Access was arranged at the point indicated by Guip, on the eastern wall, where two windows were to be altered and new joinery was to be installed, including at the entrance. A narrow hallway with thin lateral walls was to be constructed; simultaneously, the previous south and north partitions were to be demolished to make room for a left-side room and a kitchen to the right, the latter with access to a pantry (*Speisekammer*) in the new northern wing (Pl. III/3). In addition to the two existing doors (also marked in Guip's plan), for which no new joinery is indicated in red, a direct passage from the hallway to the northwest room and another between the two western rooms was proposed. The windows on the south and west façades were to be widened and fitted with new joinery in the same style as that designed for doors (see, for example, Pl. IV/1).

For the preexisting core, Balthes designed a northern extension (in red) (Pl. III/3), with dimensions not far from Guip's earlier proposal (8.90 m to the north versus Guip's 8.48 m) but with a taller volume and set approximately 0.50 m in projection relative to the older wing, featuring trapezoidal masonry gables and an east–west roof, surmounted by a small bell tower. Internally, he designed taller rooms (over 4 m, compared with approximately 3 m previously), starting from a floor level lower than that of the original building (Pl. III/3). The ceremonial/community hall, accessible from the eastern axis of the northern façade, was placed on the ground floor. In contrast, the classroom, accessible from the east through a rectangular portico equipped with semicircular arches on the elevation, was located on the western side of the upper floor. In front of it, along the eastern line, were a small hall, a pantry, and a cloakroom.

Balthes' design was executed in 1913, completed within a matter of months. Although the terms of the contract are known, further information regarding the complete execution of the project (e.g., finishes) could be recovered from on-site investigation, ideally during the implementation of the new revitalisation project. Primary research could reveal the original wall colours beyond the currently visible brown tones on large exterior surfaces and will clarify the decorative repertoire employed in the building beyond the fragments that are now difficult to read on the upper-floor façade of the old school (Pl. V/5–6) and in the western upper-floor rooms (Pl. V/7–8).

Final conclusions

Based on the correlation of data from 2023–2024, it can be affirmed that the elementary school predating F. Balthes' intervention was constructed after 1850 in line

with the design of Mathias J. Angermann, the same engineer from the Cincu who had contributed to reconstructions within the fortified church ensemble in Gherdeal as well as other localities (in the Cincu–Făgăraș area, and possibly in Brașov).

The mid-nineteenth-century school building designed by Angermann in Gherdeal was austere, organised on two levels with a compact volume, was built on a rectangular plan, and comprised six spaces on each floor (some vaulted, others with flat ceilings) served by a centrally located heating system. The main façade had three axes: two with rectangular windows and a central axis with semicircularly closed niches, presumably containing inscriptions and/or decorative elements. The wall stratigraphy was simple, consisting of plaster overlaid with whitewash (both interior and exterior). Access to the school building was most likely from the south and north on the ground floor and from the east on the upper floor, as the project did not indicate an interior staircase. The roof structure, under a four-pitched covering, exhibited an eclectic character.

Grey traces (wide bands) along the edges of the ground-floor windows and the former ground-floor niche, the stringcourse between levels (plaster over brick), and evidence of marginal bossage demonstrate that (at least) the main façade was decorated, albeit modestly, using common materials. Further parietal research conducted during the execution phase of the project may recover additional data regarding the finishes from the "Angermann" phase. As for the upper-floor niche, it is now infilled beneath the inscription in capitals, framed by vegetal decoration from the "Balthes" phase.

Surveys of the building's foundations did not indicate any prior construction for the 1851 school; however, Angermann's drawings are titled "*Plan zu einer neu zu erbauenden Schule in Girtlen*," clearly denoting a project for a new school. Therefore, the possibility of an older village school being identified – potentially even within the fortified church – cannot be ruled out for future research.

By around 1900, the Evangelical community of Gherdeal, like many such communities in the region, required not only a school and a teacher's residence but also a community hall. A more modest school-expansion proposal from 1905 (by Johann Guip), extending just 8.48 m northward and retaining the same width, was never executed. The project was ultimately realised in 1912–1913 in a more modern, elegant, and imposing form through a collaboration with Fritz Balthes.

From the old school, the perimeter and partition walls were preserved along with much of the roof structure (which was integrated with the new northern wing) and some openings. Upper-floor window openings were enlarged, while joinery was largely replaced, and wall finishes were renewed. The exterior acquired a predominantly brown tone, and above an infilled niche at the centre of the old façade, an inscription was placed within a sgraffito frame, now quite faint. Its decorative framing recalls the ornamental frames found on the façades of the community building in Șomartin, a nearby village.

Regarding the period following nationalisation (1948), there are few available records; however, during the execution of the new project, various traces could still be identified. For example, the main façade, repainted in ochre during the Communist period, retains fragments of an inscription rendered in red, now largely faded and partially lost.

Following all of the construction phases presented here, several decades of abandonment followed, resulting in significant losses: the tile roof covering, the bell turret

designed by Balthes – which, as in other cases, gave the building a distinctive character – portions of the roof structure of the new wing, the portico in front of the upper-floor classroom, the floor slabs of the large hall and the upper-floor anteroom, the interior wall between the two wings, and part of the eastern wall (up to 2014). Joinery was damaged; some elements disappeared entirely, while others were removed for conservation.

In 2017, the building was added to Romania's *List of Historical Monuments* (LHM). Thus, between 2018 and 2020, emergency interventions were undertaken by the new owner. These works involved partial reconstructions and consolidation of masonry, which have only recently been documented (Pl. VI/3, c).

*

The elementary school in Gherdeal, despite its architecture having undergone numerous alterations, represents a remarkable example of educational architecture among the Saxons in southern Transylvania. Thanks to prior historiography – but above all thanks to data from field surveys, laboratory analyses and archival sources (both visual and written) – its construction phases throughout the most significant years, 1851–1913, as well as contemporary interventions, have been identified.

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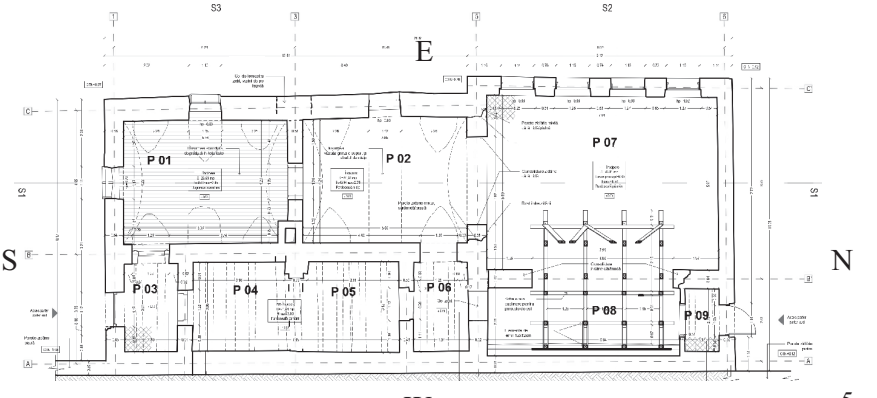
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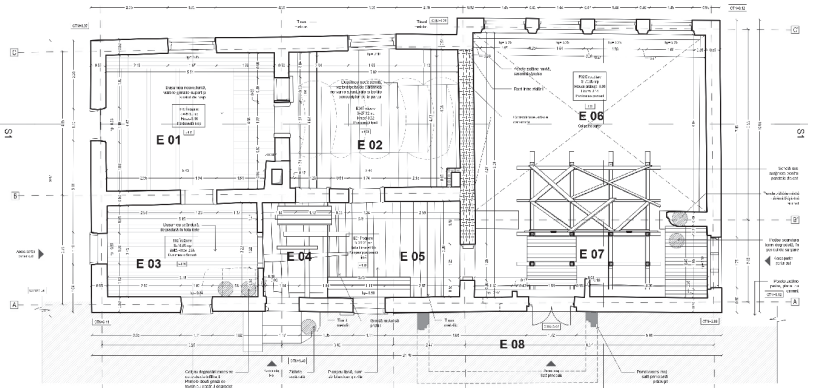
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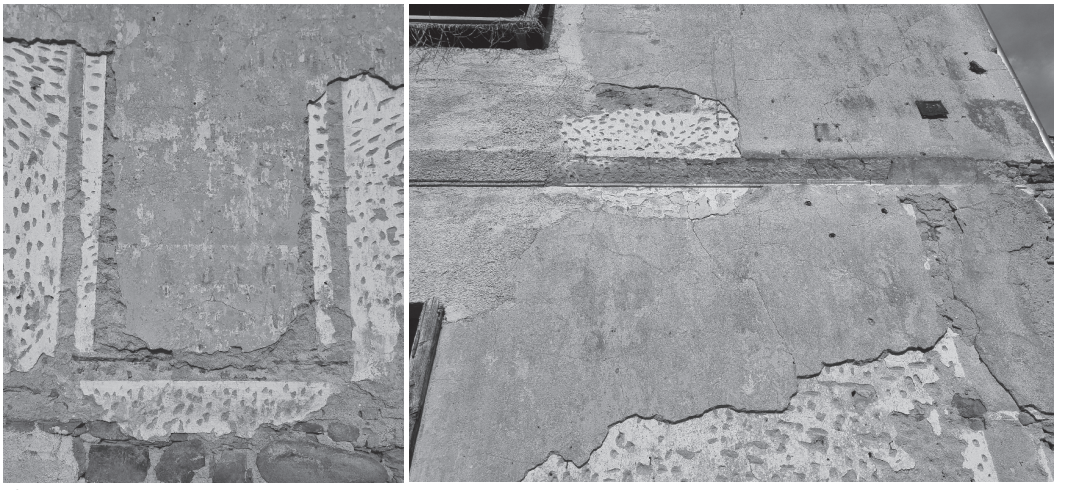
Pl. I. 1. The fortified church in Gherdeal and the Evangelical school (on left) in 1996 (G. Dumitriu, NHI); the school displays a small bell tower (later dismantled); **2–5.** The former school building in 2014 (S. Jammer, in Rudolf 2021) and 2024 (I. Burnichioiu); **6–7.** Floor plans of the building (ground floor and upper floor) in 2024 (R. Makkos, T. Pavelescu and MODUL 28, Sibiu).



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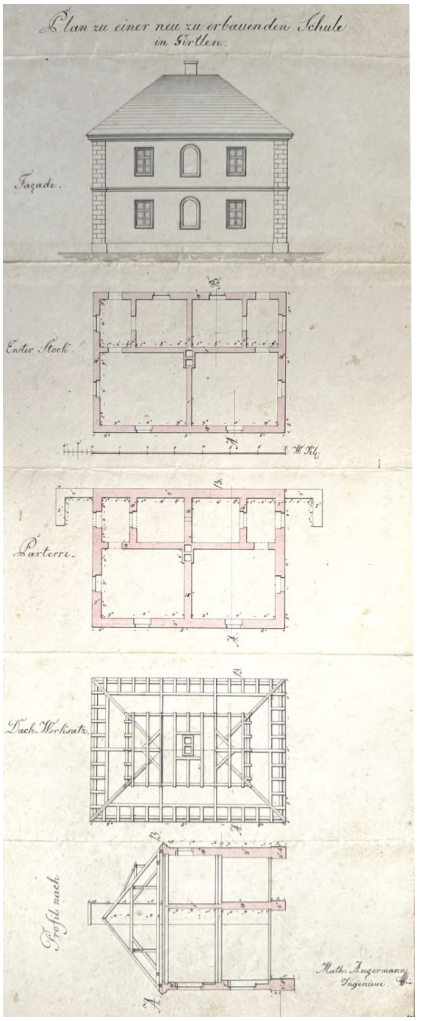
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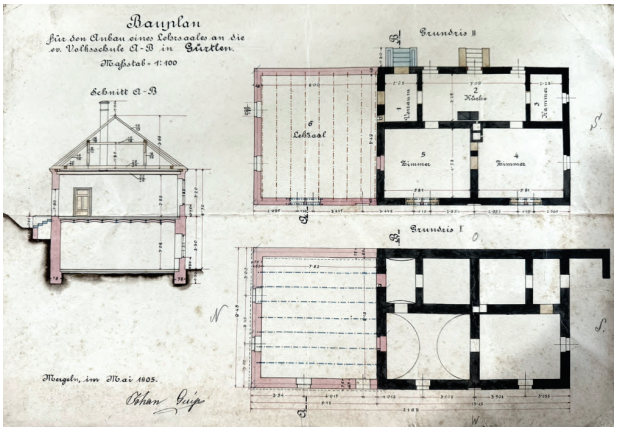
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Pl. II. 1. The village of Gherdeal in the topographical surveys of 1769–1773 and 1869–1887 (Arcanum Maps); **2.** The elementary school before the "Balthes" project, photo by J. H. Briegel from Făgăraș (Fabini 1998, 257); **3–4.** Details of the nineteenth-century school: grey traces of mouldings between the ground floor and the upper floor, of rustication, and of the (walled-in) niche of the ground floor, contemporary with the bush-hammered surfaces of a simple whitewash covering the entire building.

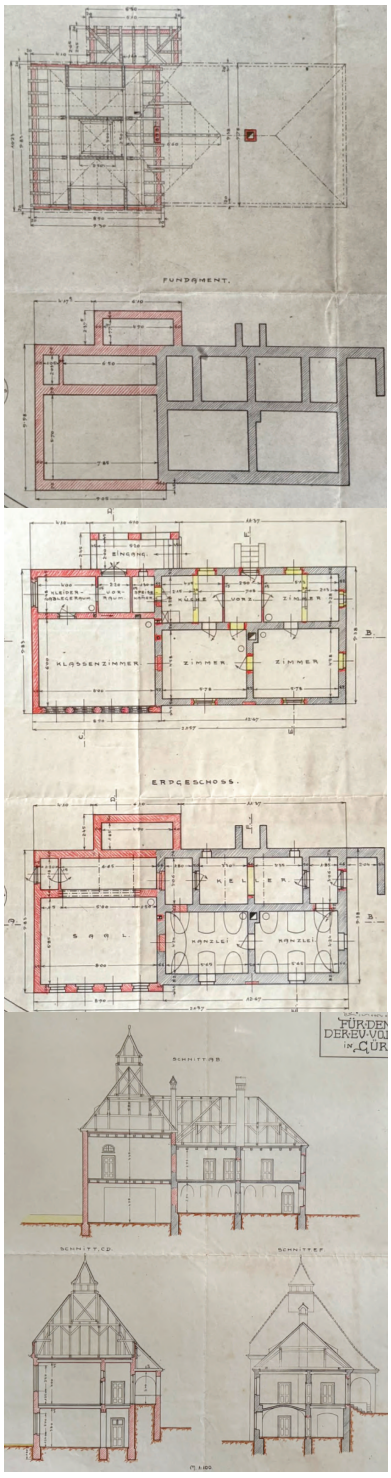
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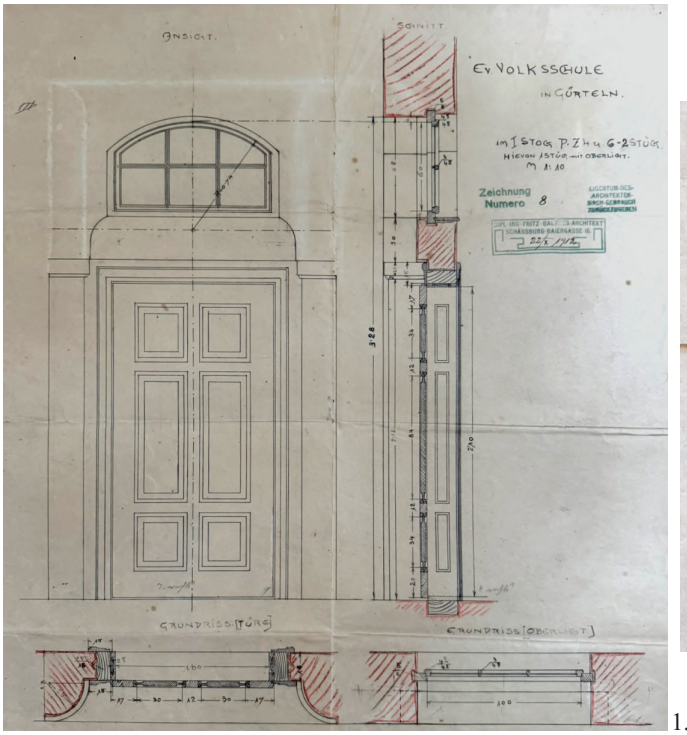
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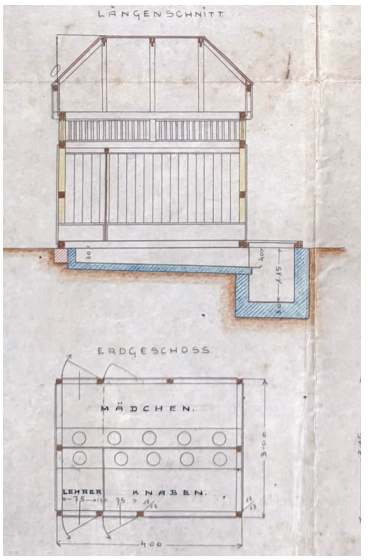
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Pl. III. Plans of the school in Gherdeal (1850–1913) (ZAEKR, 604/2900–2017):
1. Mathias J. Angermann (ca. 1850, built project); **2.** Johan(n) Guip (1905, unbuilt project);
3. Fritz Balthes (1912, built project in 1913).



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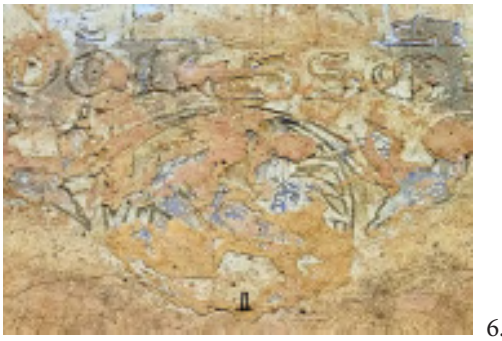
Pl. IV. 1. Project for a door frame with a transom light at the eastern entrance to the classroom (F. Balthes, ZAEKR, 604/2906); **2.** Details from the sanitary installation project of the school for girls and boys (F. Balthes, ZAEKR, 400/234/260); **3.** The northeastern room of the old school: **a.** blocked opening, indicated in Guip's plan (Pl. III/2); **b.** door frames from the "Balthes" phase in the interior of the old school (photo by I. Burnichioiu, 2023); **c.** door frame before the "Balthes" phase.

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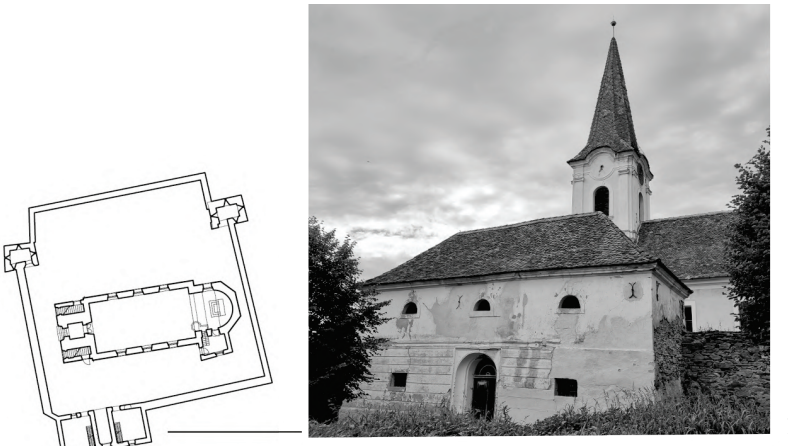
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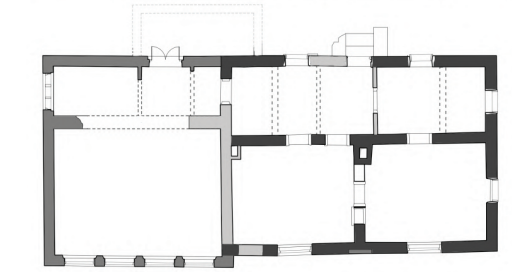
Pl. V. 1–2. Vaulted rooms on the ground floor of the old school; **3.** Southwestern room of the old school with a ceiling of hewn beams chamfered at the corners; **4.** Brick masonry with multiple interventions between the old school and the "Balthes" phase; **5–6.** Traces of the inscription in plaster on the main façade (photo by L. Kiss, 2022); **7–8.** Fragments of frieze decorations, Secession style, in the southwestern and northwestern rooms of the upper floor (beneath wood beam dated ca. 1850) (photo by Anno Domini Dendrolab, 2024).

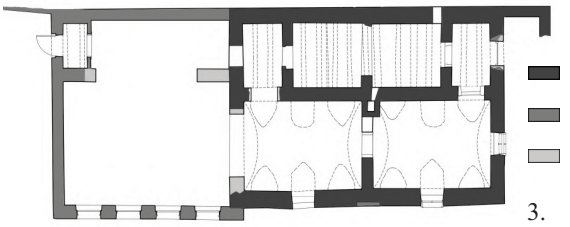


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Pl. VI. 1. Plan of the fortified church of Gherdeal (Ioan Bucur) and the southwestern gatehouse to which Mathias J. Angermann contributed in 1846; **2.** The Evangelical church of Făgăraș, attributed to Mathias J. Angermann, probably 1841–1843 (photo by M. R. Țetcu, 2019); **3.** Plan of the construction stages of the school in Gherdeal (1851–2020).

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THE HISTORY OF THE MEDIEVAL AND PRE-MODERN LAPIDARIUM IN CLUJ. THE PERIOD OF PROFESSOR BÉLA PÓSTA (1898–1919)

MELINDA MIHÁLY*

Abstract: The medieval and pre-modern lapidarium of the National Museum of Transylvanian History is one of the most valuable collections of this institution, founded within the framework of the Transylvanian Museum Society, which has been collecting architectural, sculptural, and funerary elements from the demolition of Transylvanian historical buildings since the second half of the nineteenth century. The current study presents one of the most significant periods in the history of this collection, linked to the distinguished figure of archaeologist Béla Pósta, director of the Numismatic and Antiquities Collection of the Transylvanian Museum Society.

Keywords: Béla Pósta, Transylvanian Museum Society, Numismatic and Antiquities Collection, exhibition, architecture, sculpture, plaster copy

Rezumat: Lapidariul medieval și premodern al Muzeului Național de Istorie a Transilvaniei este una dintre cele mai valoroase colecții ale acestei instituții, fiind întemeiat în cadrul Societății Muzeului Ardelean, care începând din a doua jumătate a secolului al XIX-lea a inițiat colecționarea elementelor arhitectonice, sculpturale și funerare provenite din demolările clădirilor istorice transilvănene. Studiul de față prezintă una dintre cele mai semnificative perioade din istoricul acestei colecții, legată de personalitatea marcantă a arheologului Béla Pósta, directorul Colecției Numismatice și de Antichități din cadrul Societății Muzeului Ardelean.

Cuvinte cheie: Béla Pósta, Societatea Muzeului Ardelean, Colecția Numismatică și de Antichități, expoziție, arhitectură, sculptură, copie din ghips

The medieval and pre-modern lapidarium of the National Museum of Transylvanian History is one of the most valuable collections of this institution, founded within the framework of the Transylvanian Museum Society, which has been collecting architectural, sculptural and funerary elements from the demolition of Transylvanian historical buildings since the second half of the nineteenth century. The current study presents one of the most significant periods in the history of this collection, linked to the distinguished figure of archaeologist Béla Pósta, director of the Numismatic and Antiquities Collection of the Transylvanian Museum Society.

The figure of Pósta, organizational issues, and acquisition policy

The most prosperous period of the Transylvanian Museum Society, as well as of the lapidarium, is closely connected with the work of archaeologist and professor Béla

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Pósta.[1] Pósta was born in the city of Kecskemét, initially studying law, and later attending Károly Torma's archaeology courses, which led him to focus his attention in this direction. While still a student, Pósta was employed as a scribe at the Hungarian National Museum in Budapest, becoming assistant curator in 1885, and then curator. He carried out extensive activity within the museum alongside director Ferenc Pulszky and József Hampel, director of the Numismatic and Antiquities Collection of the museum, being appointed in 1899 by the Minister of Education and Religious Affairs, in recognition of his entire activity, professor in the Department of Archaeology of the "Franz Joseph" University of Cluj, at the same time also receiving the position of director of the Numismatic and Antiquities Collection of the Transylvanian Museum Society.[2]

After taking over the museum collections (28 July–3 August 1899), Pósta gave a speech to the Society's board of directors, in which he drew attention to their poor state of preservation, outlining his program on how to overcome this and presenting several methods of increasing the funds, storage and exhibition spaces, and specialized staff.[3] Pósta's vision was to create a Central-Transylvanian Institute.[4] During his term as director, Pósta surrounded himself with several specialists, all trained without exception at his school, among them the archaeologists Árpád Buday, István Kovács, and Márton Roska.

Director Pósta also worked on projects related to fundraising through donations: he personally contacted ecclesiastical and state institutions, as well as various associations, to convince them of the importance of donating to the museum. Although some requests were turned down, many responded positively to the director's letters by donating many antiquities to the museum. Thus, donations arrived from the Cluj City Council, the St. Michael parish church, several industrial associations that had taken over the roles of the old guilds, and the Cluj County Court.[5] One of the first requests was addressed to the Cluj City Council on 12 August 1899, when the director asked for several ancient and pre-modern monuments that were in their custody. The relationship between the museum and the city council was productive in the following years as well, as all the pieces discovered during the city's systematization works were later donated to the museum.[6]

Director Pósta was the first of the Numismatic and Antiquities Collection directors to recognize the value of medieval and pre-modern architectural monuments. At the beginning of the Pósta period, the architect Lajos Pákei also supported expanding the lapidarium collection, especially with pre-modern pieces from Cluj. From the early years of the twentieth century, the young historian Lajos Kelemen also contributed to this endeavor. From the 1890s onwards, Kelemen's early publications were highly devoted to popularizing the importance of developing the lapidarium.[7] In 1903, he published a severe critique of

[1] On director Pósta's prosperous activity see: Buday 1925, 5–17; Banner 1962a, 239–240; Banner 1962b; Ferenczi 1999, 56–63; Ferenczi 2000, 29–31; Vincze 2002, 25–44; Vincze 2004, 58–73; Vincze 2009b, 399–432; Vincze 2014, 812 p.

[2] Vincze 2014, 21.

[3] Vincze 2009a, 87.

[4] Colecția MNIT, no. C1 42; Vincze 2009b, 410–427.

[5] Vincze 2009a, 88.

[6] Colecția MNIT, nos. C1 23–25, 32, 35

[7] Kelemen 1899, 85–86.

Transylvanian churches, focusing on the excessive renovations of religious buildings and the destruction of sculptural monuments discovered during restoration work.[8]

Perhaps one of the most pressing issues during Pósta's period was attracting the attention of Transylvanian society by sensitizing it to the importance of preserving monuments *in situ* or in museum settings. As a result, the Reformed Church also expressed its opinion on this issue at the meeting of 10–13 November 1906, stating that the church's goods are not for sale, but in cases where a parish would have to sell its goods, it would be obliged to offer them for sale first of all to the Transylvanian Museum Society.[9]

As far as director Pósta's long-term projects and ideas were concerned, one of the most significant projects was the construction of a dedicated building for the museum. Following the installation of the exhibitions in the university building in 1903, Pósta also received the promise of a new building within the next 10–15 years.[10] As a temporary storage solution, he rented several rooms in the center of Cluj, on Wolf St.,[11] Inner Monastery St.,[12] and Matthias St.,[13] and starting in 1913, he managed to gather most of the divided collections into a single building, located at 2 Bastion St.,[14] rented from the Reformed Church, which is currently still the location of the museum.[15]

In order to publish the museum's collections and research, director Pósta created a bilingual journal, *Dolgozatok az Erdélyi Nemzeti Múzeum Érem- és Régiségtárából – Travaux de la Section Numismatique et Archéologique du Musée National de Transylvanie*, which, in a relatively short time, enjoyed wide circulation in most of the major scientific centers of Europe.

The 1903-exhibition in the university's central building

In 1903, Pósta began a new chapter in the history of the Numismatic and Antiquities Collection by establishing the institution's first exhibitions and restoration laboratories in the basement of the university's central building, with the exhibitions grouped in four separate rooms, each open to the public. The Roman, medieval, and pre-modern lapidaria were located in the basement, while The Egyptian, Roman, Migration, Medieval, Pre-Modern, and Modern Period collections, along with the weapons, historical garment, and guild collections, were located on the ground floor. Work began in early September 1901, and the exhibitions were officially opened on 29 May 1903, the closing day of the academic year. The exhibitions were easier to visit due to the publication of detailed exhibition guides.[16]

The placement of the ancient monuments took into account the fact that most of the pieces were Roman epigraphic rarities, the visibility of the inscriptions being paramount,

[8] Kerny 2002, 76.

[9] Vincze 2014, 33–42.

[10] In 1868, the Cluj architect Ferdinand Hottner created the plans of the new museum, of which the project of the main façade is preserved, executed in a Romantic style, slightly outdated for the period, by combining the most known gate towers of the medieval fortified enclosure of Cluj, see: B. Nagy 1977, 91, ill. 150.

[11] The former *Farkas utca*, present-day Mihail Kogălniceanu St.

[12] The former *Belmonostor utca*, present-day Memorandumului Blvd.

[13] The former *Mátyás utca*, present-day Matei Corvinul St.

[14] The former *Bástya utca*, present-day Constantin Daicoviciu St.

[15] Colecția MNIT, nos. C1 1783/1–15, 1895/1, 2017/3, 2296/35; Vincze 2009a, 88.

[16] Colecția MNIT, nos. C1 245; Pósta 1903a, 345–349; Pósta 1903b, 58; Roska 1909, 33–39; Roska 1942, 99–101; Banner 1962b, 14; Mihály 2009, 137.

so they were placed in the brightest room (room no. III), located in the east wing, facing the Theater St.[17] These pieces were placed perpendicular to the longitudinal axis of the street, thus ensuring side lighting, which was optimal for deciphering the inscriptions.[18]

The medieval and pre-modern monuments, as well as a few Roman monuments that did not fit in the above room, were exhibited in a space with north-facing windows (room no. IV), towards King St.[19] Due to a lack of space, Pósta also had to exhibit a large number of monuments in the university's courtyard.[20]

Along the short side of the room dedicated to the medieval and pre-modern lapidarium, called at the time "the exhibition of Christian monuments," the Gothic portal of the Calvaria church from Cluj-Mănăștur, restored and reconstructed in its entirety, was exhibited, and a copy of the statue of St. George was placed in front of it (Figs. 1, 2). In exhibiting the monuments, the best possible use of the space was taken into account, as well as the fact that the back of most of the pieces was roughly finished. Thus, they were exhibited in chronological order, grouped in twos, with the backs joined together, supported on fir wood beams sunk into the floor, the medieval and pre-modern lapidarium being divided into a series of small units, delimited by pieces, creating spaces similar to the rooms of the pre-modern houses from which they came.[21] To attract a non-specialist audience, some lapidarium pieces were exhibited by reconstructing their original functions and locations. Those pieces that could not be included in the thematic groupings due to space constraints were placed next to the windows, making them accessible to specialists.[22]

To better use the exhibition spaces, Pósta opened new access points into the masonry, with the floor laid with a new layer of cement. The new furniture of the exhibition space, consisting of 16 showcase-type cabinets with drawers and adjustable shelves, was commissioned from Lajos B. Bak's well-known Cluj-based carpentry firm, which also made the furniture for the university's main building. The same firm also made the pedestals of the monuments of the Roman and medieval lapidaria, most of which are still in use today.[23] Pósta was inspired by the solutions seen at the National Museum in Budapest regarding the way of displaying and designing the pedestals of the exhibits, taking into account the fact that the exhibition was conceived as a temporary one, abandoning the traditional brick pedestals and ordering movable pedestals made of fir wood, covered with gray oil paint, the neutral shade being considered the most suitable for highlighting the exhibits.[24]

The most modern display techniques of the time were used in setting up the exhibitions, and although today they could be considered open study repositories, at that time, the only institution in Hungary with exhibitions of this level was the Museum of Fine Arts in Budapest.[25]

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[17] The former *Színház utca*, present-day Emmanuel de Martonne St.

[18] Gerecze 1906, 429–437; Pósta 1907a, 138; Kerny 2002, 75; Mihály 2009, 138; Vincze 2014, 276–278.

[19] The former *Király utca*, present-day Ion I. C. Brătianu St.

[20] Pósta 1907a, 138; Mihály 2009, 138; Vincze 2014, 276–278.

[21] Pósta 1907a, 138–147.

[22] Pósta 1907a, 146; Kerny 2002, 76; Vincze 2014, 276–278.

[23] Colecția MNIT, nos. C1 82, 445, 473, 499, 546, 1830; The same Lajos B. Bak also designed the project of the main altar of the St. Michael parish church in the neo-Gothic style in 1868 (Sas 2009, 176).

[24] Pósta 1907a, 140–142; Kerny 2002, 77; Mihály 2009, 139.

[25] Pósta 1907a, 147.

A few years after the exhibitions opened, due to the rapid growth of the collections, the rooms became overcrowded, and in 1909, the medieval and pre-modern lapidarium was forced to close its doors to visitors because of these impediments.[26]

Building up the plaster copies collection; copies of medieval exhibits

The exhibitions organized by Pósta broadly followed the exhibition concept of the Pergamon Museum in Berlin and the Museum of Comparative Sculpture, opened in the Palais du Trocadéro in Paris, founded by Eugène Viollet-le-Duc.[27] The same trend was characteristic of most museums in Budapest at the time, Flóris Rómer, curator of the Numismatics and Antiquities Collection of the Hungarian National Museum in Budapest, requesting in the summer of 1873 the establishment of a collection of plaster copies of the most significant works of Hungarian sculpture. To this end, Rómer sent Viktor Molnár, an employee of the Collection of Antiquities, to the Museum of Applied Arts in Vienna, to learn the craft of making plaster copies.[28]

Pósta also aimed to present the museum's architectural, funerary, and sculptural heritage as comprehensively as possible, the original pieces being supplemented with a series of plaster copies, in order to achieve a more unified and balanced display of specific themes, while also trying to provide the necessary means for art education within higher education and education of the public.[29]

At the inception of the collection, most of the copies were made by Hungary's most renowned plaster modeler, József Reichenberger, who also created the plaster copies displayed at the 1896 millennial exhibition. The first piece in the plaster copies collection of the Cluj museum was the copy of the statue of St. George made by the brothers Martin and Georg from Cluj, donated in 1901 by Emperor Franz Joseph to the Transylvanian Museum Society, one of the 20 copies commissioned by the Austro-Hungarian sovereign and donated to various cultural institutions.[30] The other copies of the collection were commissioned by Béla Pósta from Reichenberger, mainly copies of medieval funerary monuments from Transylvania. In 1902, copies of the funerary monuments of members of the Hunyadi family were commissioned,[31] followed by a copy of the funerary monument of a member of the Zay family (1471) and of János Dengelegi Pongrácz (1477) from the Franciscan church in Teiuș.[32] The copy of the baptismal font of the former Dominican monastery of Sighișoara was made much later, in 1910, by the Society's photographer and laboratory technician, András Lehoczky.[33]

To ensure the presence of an employee specialized in making plaster copies, Pósta hired the sculptor Ferenc Kolozsvári Szeszák as an unpaid assistant at the Society's art gallery in 1913.[34]

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[26] Pósta 1908a, 47; Roska 1909, 33–39; Mihály 2009, 139; Vincze 2014, 278.
[27] Pósta 1907a, 139; Mihály 2009, 138, 167.
[28] Szentesi 2006, 34; Mihály 2009, 138, 167.
[29] Pósta 1907a, 145.
[30] Pósta 1902, 308; Pósta 1908b, 61–73; Kerny 2002, 76; Vincze 2014, 277.
[31] Colecția MNIT, no. C1 284.
[32] Mihály 2009, 167.
[33] Colecția MNIT, nos. C1 1422, 1449, 1465; Pósta 1903b, 53; Szentesi 2006, 1–94; Mihály 2009, 167.
[34] Pósta 1914, 34; Kerny 2002, 77; Vincze 2002, 37; Mihály 2009, 138–139.

The 1913-exhibition on Bastion St.

After numerous rejected requests to build a new museum building, Pósta gave up his plan of bringing all the collections together in a single dedicated building. From 1912–1913, he managed to rent the revenue house at 2 Bastion St. and the second floor of a building on Franz Iosef Rd.[35] Keeping the old exhibitions in the main university building, he started organizing the storage and partial display of the collections in the new buildings.[36]

The new exhibitions in the building at 2 Bastion St. were set up in collaboration with several archaeologists trained in Pósta's school, namely Lajos Buday, István Kovács, Márton Roska, and the young Balázs Létay, who had just finished his higher education. The four archaeologists were assisted by Pósta's other students, Sándor Ferenczi and János Herepei. Due to Roska's many preoccupations, the ethnographic exhibition on Ferenc József St. was organized almost entirely by the ethnographer János Gulyás, the art gallery by the painter Gyula Müller-Merész, the medieval and pre-modern lapidarium by the sculptor Ferenc Kolozsvári Szeszák, the history of pharmacy exhibition by the university professor Gyula Orient, who was also responsible for the entire history of pharmacy collection, assisted during the holidays by the teacher of the gymnasium in Jászberény, János Banner.[37]

The entire team worked for two years to set up the new exhibitions in the Bastion St. building. The first exhibition to open in the spring of 1913 was the art gallery on the second floor, followed in the same year by the medieval and pre-modern lapidarium on the ground floor. In the summer of 1914, the prehistoric exhibition opened, except for the Zsófia Torma collection. The ethnographic exhibition progressed more slowly due to a lack of specialists, and in 1917, the history of pharmacy collection was the last to be opened.[38]

Due to the setup of the new exhibitions, the building on Bastion St. underwent some necessary changes to ensure optimal exhibition spaces: the gateway to the courtyard and the staircase were closed with doors, turning the gateway into a closed area that was also used as an exhibition space. Roman epigraphic monuments were lined up along the archway walls. The first door that opened from the gateway to the right led into a series of succeeding rooms, the first of which presented the Árpád-period cemetery of Hunedoara, and the next three rooms displayed the architectural and funerary monuments that could not be displayed in the university basement due to a lack of space.[39] In the annual report on the museum's activities from 1913, Pósta presented the museum's new exhibitions, evaluating their significance, and at the same time formulated a program for the next period. Pósta considered the lapidarium the most valuable exhibition of the museum, aware that it was the only one of its kind in the whole country, both in terms of quantity and quality.[40]

Pósta's long-term dream was to unify the two exhibitions of the medieval lapidarium in a new museum building, which only partially materialized after his death, in the 1930s, when the two lapidaria were unified in the building on Bastion Street, which he had considered only a temporary home, and which has remained the museum's headquarters to this day. Due to the lack of space, in a rather bizarre but characteristic manner for the

[35] The former *Ferenc József út*, present-day Horea St.

[36] Colecția MNIT, no. C1 2205/10; Pósta 1912, 32–34; Pósta 1913, 32–35; Pósta 1914, 29–32.

[37] Pósta 1914, 29–32; Vincze 2014, 279.

[38] Pósta 1913, 33–35; Pósta 1914, 29–32; Vincze 2014, 279–282.

[39] Colecția MNIT, nos. C1 2296/20 (411/1914), 2296/1 (440/1914), 2296/23 (459/1914).

[40] Pósta 1914, 29.

period, the director's office was set up in an exhibition space on the first floor, next to the Dumbrăveni church organ.[41]

Pósta took care not only of gathering pieces, but also of their conservation and restoration, setting up a stone restoration laboratory for the maintenance of the lapidarium monuments in the building on Bastion Street in 1913. He employed sculptor Szeszák Ferenc Kolozsvári to conserve and restore the pieces.[42]

In the same museum activity report of 1913, Pósta also presented the most important objectives of the museum's activities: to *save the heritage* and to *build a new building for its exhibition*. Regarding the first point, the director considered that it had achieved considerable results, thanks to the state's annual financial support, but as regards the second, the numerous refused requests forced him to develop a new exhibition system, within which it was also possible to store the pieces.[43]

The First World War years, the end of the Pósta period

The First World War interrupted the setting up of the new exhibitions. Following Romania's declaration of war in 1916, a large part of the Transylvanian Museum Society's collections was evacuated to Budapest. The entire art gallery, the numismatic collection, and numerous antiquities were packed into 196 crates and sent to the Hungarian National Museum in Budapest for safekeeping. Although we have no information regarding the types of pieces that were evacuated, we assume that these safety measures did not affect the lapidaria, as only the most valuable and the smallest pieces, those that could be easily transported, were moved. In most exhibitions, except for the history of pharmacy collection, total disorder prevailed.[44]

After the war ended, the employees who had returned from the front resumed work on reorganizing and rebuilding the exhibitions. The change of power brought a new period in the Society's life. In January 1919, the board of directors warned Pósta that in the event of the takeover of Hungarian state property by the Romanian state, Pósta would have to protect the Society's collections from the Romanian state, since they were not state property but rather the property of a society, and their expropriation would be illegal.[45]

During this troubled period, on 16 April 1919, Pósta passed away, thus Árpád Buday temporarily took over the management of the two important institutions, and it became his duty to hand over the Numismatic and Antiquities Collection and the collection of the Franz Joseph University to the Romanian authorities. On the occasion of the handover, Buday firmly maintained that the Numismatic and Antiquities Collection was the inalienable property of the Transylvanian Museum Society and that its expropriation was illegal.[46]

The Pósta-period acquisitions

Director Pósta also developed several projects to increase funding through donations: he personally contacted ecclesiastical and state institutions, as well as various associations,

[41] Pósta 1914, 32.
[42] Colecția MNIT, nos. C1 2296/10 (452/1913/14); Murádin 2017, 363.
[43] Pósta 1914, 29–32.
[44] Colecția MNIT, nos. C1 2242/5, 2445/6 and 14, 2449/1, 2555/7 and 10, 2583/4; Vincze 2009a, 92.
[45] Vincze 2014, 547–569.
[46] Colecția MNIT, no. C1 2597/3; Vincze 2009a, 92.

to convince them to donate pieces that were out of use to the museum. From the list of institutions contacted with a view to acquiring goods, it is clear that Pósta was the first director who, although trained as an archaeologist, was also interested in collecting medieval and pre-modern pieces. During the period when he took over the management, the Numismatic and Antiquities Collection had only a few medieval and pre-modern monuments, a Gothic keystone, the Patócsi sarcophagus, and some of the frames from the Wolphard-Kakas house in Cluj.

One of the first requests was addressed to the Cluj city council on 12 August 1899, requesting the donation of some ancient and pre-modern monuments in the council's custody: an inscription fragment, a statuette, a Roman sarcophagus, and two pre-modern monuments from the fortification walls. The mayor of Cluj, Géza Szvacsina, replied to the director a few days later, ensuring the donation and free transportation of the aforementioned pieces.[47] The relationship between the museum and the city council was productive in the following period as well, with all the artifacts discovered during the city's public works being donated to the museum.

The subsequent lapidarium acquisitions, recorded in the old inventory registers of the Numismatic and Antiquities Collection, are the commemorative slabs decorated with the Cluj coat of arms, followed by the two Gothic keystones of the St. Michael parish church, located in a pile of stones near the church sanctuary,[48] and the commemorative plaque of Gergely Apafi's wife, born Erzsébet Gerendi, from the Apafi castle in Dumbrăveni.[49]

Among the first acquisitions, the Renaissance frames of the Basta house (two portals and two tripartite window frames), bought in 1900 after the building's demolition, certainly stand out. Pósta, aware of the value of the portal from 1553, described it in an article as one of the most beautiful Renaissance monuments in the museum.[50]

In 1901, the west portal of the former Benedictine Monastery Cluj-Mănăștur was purchased, having been dismantled upon the creation of its faithful replica in 1896, as part of the preparations for the millennial celebrations (Fig. 4).[51] In the same year, the architectural fragments of the Romanesque Reformed church from Sâncraiu de Mureș, which had been demolished in 1900, were acquired through the young Lajos Kelemen. The documentation of the excavations carried out after the demolition and the selection of the elements to be donated to the museum were carried out by the same specialist.[52] In 1901, several other fragments from demolished medieval Transylvanian churches were also transported, such as the polygonal baptismal font and the Gothic tabernacle of the Reformed church of Săvădisla[53] and the only Gothic element of the former Reformed church of Tirimia, the south portal of the nave.[54]

[47] Colecția MNIT, nos. C1 23 (13/1899), 24 (14/1899); Pósta 1900, 241.

[48] Colecția MNIT, nos. C1 32, 35; Sas 2009, 266–268; Vincze 2014, 229.

[49] SJCj AN, SMA Fonds, no. 196/1899.

[50] Pósta 1901, 303; Mihály 2009, 156–157; Vincze 2014, 231.

[51] Colecția MNIT, nos. C1 254 (259/1901), 259 (272/1901); SJCj AN, SMA Fonds, no. 172/1901; Pósta 1902, 307; Kovács 2007, 65–80; Mihály 2009, 140; Vincze 2014, 229.

[52] Colecția MNIT, nos. C1 81, 188; Pósta 1909a, 35–49; Entz 1994, 62; Mihály 2009, 140; Vincze 2014, 228.

[53] Entz 1996, 134; Vincze 2014, 229.

[54] SJCj AN, SMA Fonds, no. 27/1904. The item was inventoried only later, in 1945; Vincze 2014, 230.

The most significant acquisitions of 1901 are certainly the pieces from two of the most valuable Renaissance-era houses in Cluj, namely Wolphard-Kakas and Bogner-Gellyén, located on the eastern row of Central Square (Fig. 7, 8).[55] Initially, since the period of director Henrik Finály, the frames of the façades and rooms facing the square, which were demolished in 1894, were recovered. In 1901, the acquisition was completed with several other pieces, dismantled following the renovation of the spaces facing the courtyard, bringing the number of pieces from the medieval lapidarium to more than 50. In one of his letters to architect Jenő Lechner from Budapest in 1916, Béla Pósta complained that when he became the director of the Numismatic and Antiquities Collection, the pieces from the two houses were lying in a heap of mixed stones in the museum courtyard, making it difficult to identify them.[56] Thus, the pieces from the two houses became the most significant and extensive elements of the lapidarium from the very beginning. Although Pósta had tried to group the pieces by house from the very beginning, they were only separated definitively later, due to the scale drawings of the city's chief architect, Lajos Pákei.[57]

Among the 1901 acquisitions were also a Baroque statue fragment of remarkable quality, representing the bust of Christ at the Column (Fig. 9),[58] a pair of Renaissance pilaster pedestals and capitals from the Pataki-Teleki house on the south-east corner of the Central Square,[59] and a portal frame from 1601, from the courtyard of the Rhédey house located on the south-west corner of the same square.[60]

At Pósta's request, István Möller, the architect in charge of the restoration of the Roman-Catholic cathedral in Alba Iulia, commissioned the plaster modeler József Reichenberger from Budapest in October 1901 to make copies of the funerary monuments of the Hunyadi family members for the museum. The plaster copies were made quickly, but with a few shortcomings. Reichenberger informed Möller in November that he was deducting 60 crowns from the original price of the work because he had only made a copy of the Kendi coat of arms and one side of László Hunyadi's funerary monument. The copies were transported to Cluj in April 1902.[61]

After the 1903 opening of the exhibitions in the university's basement, the medieval and pre-modern lapidarium was further enriched by a series of new acquisitions. As a result of Pósta's correspondence with the Unitarian bishop Ferencz József between 1899 and 1902, Pósta acquired fragments of Renaissance frames from the houses demolished on the Inner Hungarian Street[62] in view of the construction of the new Unitarian College building. Initially, the church refused to hand over the pieces, as they planned to exhibit the fragments in the college's museum, which was to be established. However, after the project's failure, in December of the following year, the Council of the Church Representatives

[55] The former *Fő tér*, present-day Unirii Square. Colecția MNIT, no. C1 2630 (336/1901); Mihály 2009, 140; Vincze 2014, 230–231.

[56] Colecția MNIT, no. C1 2460/3; Mihály 2009, 140.

[57] Balogh 1944, 293–303.

[58] Pósta 1902, 307; Mihály 2009, 160.

[59] Pósta 1902, 307; Vincze 2014, 232.

[60] SJCj AN, SMA Fonds, nos. 310/1913, 311/1913; Vincze 2014, 232.

[61] Reichenberger initially requested 150 crowns for the copy of each funerary monument: Colecția MNIT, nos. C1 284, 284a, 323, 324.

[62] The former *Belmagyar utca*, present-day 21 Decembrie 1989 Blvd.

decided to hand them over to the museum, except for the one embedded in the college wall, in exchange for duplicates of the library of the Numismatic and Antiquities Collection.[63]

Following the closure of the restoration site of the Dominican monastery of the Old Castle, led by the architects István Möller and Kálmán Lux, the pieces that could no longer be integrated into the renovated building were donated to the museum in 1903. This collection consists of 24 Gothic pieces, containing frames and fragments of frames, consoles, and pear-section ribs.[64]

In 1904, Lajos Kelemen brought a fragment of a funerary monument from 1597 from the Central Cemetery (Házsongárd Cemetery) to the museum. In the same year, the arrival of a Gothic terracotta rib, recovered from the demolition of the Roman Catholic church in Troița (Mureș County), and two sixteenth-century portals from the Hunwald house in the Central Square was reported.

Certainly, the most important acquisitions of 1904 were the funerary monument of György Sükösd and the Gothic portal of the Reformed church of Tirimia, which were offered to the Society for purchase following the demolition of the church. In addition to acquiring the funerary monument, the museum also conducted archaeological excavations to research its funerary assemblage. During the excavations, a long dispute arose between Pósta and Baron Solymosi, the owner of the estate, who also attacked Márton Kakosi, the Reformed priest of the church, over the exhumations. After a series of disputes, Pósta proposed a resolution, and the bones of Sükösd and the other exhumed individuals were reburied on the new church grounds. During the excavation of the crypt, some broken fragments of the sarcophagus were discovered, including the arm of the figure of Sükösd and the head of one of the allegorical figures on the front side. In addition, several pieces of the funerary assemblage were found, including two gold rings and a series of silver nails with spherical and stellate heads, probably from the coffin's exterior decoration.[65]

The year 1906 was significant in the history of the Numismatic and Antiquities Collection due to the acquisition of the fragmentary coat of arms of the Bishop of Transylvania, László Geréb, considered the earliest Renaissance monument in Transylvania, discovered in the courtyard of Viktor Gallus' house in Gilău, embedded in the fence of his garden, originating from the medieval episcopal castle of Gilău (Fig. 5).[66] In the same year, the Baroque coat of arms of the ropemaker master Mihály Kötélverő Takács from 1763 was also purchased, originating from the Old Castle in Cluj, 2 Izabella St.[67]

[63] Colecția MNIT, nos. C1 43, 45, 302, 631; Mihály 2009, 142. Although the pieces in question were transported to the museum in 1903, they were only included in the inventory register in 1942. Over the course of almost four decades, the information about them got lost, so that although in the museum's correspondence with the Unitarian diocese six items, consisting of nine pieces, were recorded, only three were registered in 1942, with the provenance "from the Unitarian houses of Cluj," thus today most of the above fragments cannot be identified.

[64] Pósta 1904, 229; Sas 1999, 200–204; Vincze 2014, 229.These items were inventoried, like those from the former Unitarian houses, only four decades later, by art historian Géza Entz,

[65] Correspondence regarding the acquisition of the monument: Colecția MNIT, nos. C1 684, 695, 699, 703, 705, 711, 712, 716, 717, 723, 724, 734, 933, 985, 986. On the demolition of the church and the acquisition of the funerary monument: SJCj AN, SMA Fonds, no. 27/1904 (19 February 1904); Kelemen 1905, 105; Mihály 2009, 142, 165–166; Vincze 2014, 234.

[66] Szász 2002, 3; Mihály 2009, 142; Vincze 2014, 230.

[67] The former *Izabella utca*, present-day str. George Clemenceau St.; Vincze 2014, 235.

Following the demolition of the house at 3 Inner Monastery St.,[68] the Cluj construction firm *Rehling and Spáda* donated the only portal with a Hungarian inscription from Renaissance-era Cluj to the museum in 1907, together with another frame fragment decorated with the relief of a chalice and the silversmith monogram NI, probably silversmith István Nagybányai or János Nyirő.[69]

In 1907, the fragment of a tripartite window frame, decorated with the GM monogram and the year 1633, likely from Márton Gerendi's manor in Luncani, was acquired.[70]

As a result of the good relations between the city hall and the museum, in 1907 several monuments from the fortification walls of Cluj were donated to the museum, namely the following: the Gothic inscription from 1477, which dates the construction of the barbican of the Bridge Gate Tower on Bridge Street,[71] the 1794 commemorative inscription of the gate tower on Inner Hungarian St., the commemorative inscription from 1692 of the stone bridge on Híd Street, the funerary monument of Mihály Telegdi and his wife, Borbála Angyal, from 1800, and a commemorative plaque made for the construction of the mill in Cluj in 1834.[72]

During the 1902 renovation of the former Jesuit chapel on Monastery Road,[73] all the inscriptions and reliefs that originally decorated the main façade were removed and donated to the museum in 1909, lying for seven years in the courtyard of the Roman-Catholic parish church near the chapel.[74]

In 1909, the Reformed church of Iernut donated Klára Bogáti's funerary monument, together with all the adornments and textiles found in the grave, to the Numismatic and Antiquities Collection.[75]

In the same year, an extensive correspondence between director Pósta and the Cluj merchant Miklós Püspöky, owner of the building at 20 Central Square,[76] the Bácsi-Münich House, began. Following the demolition of the old Renaissance house, Püspöky kept the Renaissance portal from the former vestibule. At the same time, the other fragments, a keystone and three small fragments, were offered to the museum for free, on condition that the museum would transport them within a week, also specifying that if the museum did not comply with the imposed conditions, the fragments would be sold as building material. The other letters, however, show that the merchant had changed his mind in the meantime and tried to hand over the fragments to the museum for a fee. During the dispute, Pósta published a series of articles on the subject in the local newspaper *Ellenzék*, as a result of which Püspöky donated some of the fragments to the museum in 1910, while the others lay for several years on the pavement in front of his house.[77]

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[68] The former *Belmonostor utca*, present-day Memorandumului St.

[69] Pósta 1907b, 44; Pósta 1908a, 45; Balogh 1985, 158; Mihály 2009, 142; Vincze 2014, 232.

[70] Vincze 2014, 232.

[71] The former *Híd utca*, present-day Regele Ferdinand St.

[72] Pósta 1907b, 44; Mihály 2009, 142; Vincze 2014, 230, 232.

[73] Former *Monostori út*, present-day Mănăștirului Rd.

[74] Pósta 1909a, 43; Mihály 2009, 142, 159–160; Vincze 2014, 234.

[75] Pósta 1909a, 44; Mihály 2009, 143;Vincze 2014, 233.

[76] The present-day 21 Union Square.

[77] Colecția MNIT, nos. C1 1309, 1311; Pósta 1909a, 44–46; Pósta 1909b, 2; Pósta 1910, 31–46; Mihály 2008, 65–67; Mihály 2009, 143, 155–156; Vincze 2014, 231.

In 1910, upon the construction of the Chamber of Commerce and Industry, another building, the Máriaffy house, located in the immediate vicinity of the former gate tower on Hungarian St., and a portion of the fortified enclosure were demolished. Following the works, the 1583 funerary inscription of Martinus Schinder, engraved onto one of the blocks of the enclosure wall, a fifteenth-century loophole, and several stamped bricks were transported to the museum.[78]

After the 1848 revolution, the Renaissance sarcophagus of Count Gábor Haller and his wife Ilona Bocskay was evacuated from the chapel of their castle in Albești to the Reformed church in the village, where it suffered severe material damage due to the increased humidity, so in 1910 the descendants of the Haller family decided to sell the sarcophagus to the National Museum of Transylvania for 1000 crowns.[79] In the same year, Pósta also requested some architectural fragments of the Haller Castle in Albești, namely a commemorative slab decorated with a coat of arms, located above the entrance to the castle chapel, two corner pillars from inside the chapel, and a coat of arms located above a portal of the castle, but his request was refused because they should be kept *in situ*.[80]

At the beginning of the twentieth century, the restoration of the Reformed church on Wolf St. was initiated by the National Commission for Historic Monuments (Műemlékek Országos Bizottsága). Negotiations between the Commission and the church began in 1904, with three-quarters of the costs covered by the Commission and one-quarter by the Reformed church. The architect of the Commission, Kálmán Lux, was entrusted with the supervision of the construction site. The preparation work, photo-documentation, and scale drawings of the church were carried out in 1908, and the restoration plans were drawn up in 1909. In the first phase of the works, during the archaeological excavations carried out between 1910 and 1911 by the museum's archaeologists, István Kovács, Márton Roska, Balázs Létay, ten funerary slabs were discovered in the nave and the portico of the church, in addition to their funerary assemblages, consisting of jewelry and a rich collection of various types of textiles: clothing, coats of arms, coverings and burial flags. All the funerary monuments, except for the slab of stone carver Seres, were facing the ground. The materials were donated to the museum for temporary storage, as the Reformed parish intended to display them in a church museum. After the church abandoned the idea of a museum of its own, the materials were stored permanently in the Numismatic and Antiquities Collection.[81]

In the same year, the Numismatic and Antiquities Collection was also enriched with one of the earliest commemorative inscriptions in Transylvania, engraved on the surface of a brick, dating the construction of the Roman Catholic church in Gogan-Varolea to the end of the thirteenth century or the beginning of the next century.[82]

[78] Pósta 1910, 41; Mihály 2009, 143.

[79] Colecția MNIT, nos. C1 1432, 1790/14; Mihály 2009, 143, 165; Vincze 2014, 234.

[80] Colecția MNIT, nos. C1 1423 (551/1910), 1432a (606/1910).

[81] Colecția MNIT, nos. C1 2664/1 (214/1911), 2664/2 (279/1911), 2665/7 (401/1911), 2666/1–5; Sándor 1913, 199–216; Entz, Kovács 1995, 28–29; Mihály 2009, 143, 163; Vincze 2014, 233.

[82] Pósta 1911, 47; Entz 1994, 41–42; Mihály 2009, 143; Vincze 2014, 229.

Certainly, the most valuable acquisition of 1912 is the sarcophagus and valuable treasure discovered in the funerary assemblage of György Bebek's wife, born Zsófia Patócsi, from the Reformed church of Cetatea de Baltă, acquired for the sum of 4000 crowns.[83]

After the outbreak of World War I, the museum's acquisitions and donations continued at a slower pace. During this period, between 1914 and 1915, several donations were made, namely the architectural fragments of the Reformed church of Deva, a console and a fragment of a late Gothic pastophorium, as well as the Romanesque baptismal font of the Roman Catholic church of Someșeni, donated by the parish priest József Hirschler, famous for its specific decoration (Fig. 3).[84] The museum also tried to acquire a similar font from the church in Troița (Mureș County), but without success.[85]

The most significant acquisition of the war period was undoubtedly the Renaissance tabernacle of the Reformed church of Coveș (Sibiu County), bought in 1915, together with the architrave of the west portal of the church (Fig. 6). After the tabernacle was offered for purchase by the Board of Directors of the Reformed Diocese to the Hungarian National Museum in Budapest and the National Museum of Transylvania, the latter institution, being favored by the church, won the case, surpassing the Hungarian National Museum's offer of 600 crowns by bidding 700 crowns.[86] On the occasion of this acquisition, Pósta personally visited the site to assess the value of the tabernacle[87] and thereafter initiated extensive correspondence regarding the restoration of the church, as the church authorities had given up on the building due to a lack of parishioners. Pósta's project was to establish a Reformed orphanage in the village of Coveș, to provide for parishioners in the future, with its organization and maintenance entrusted to the Reformed priest appointed by the diocese.[88] To this end, he took a series of photographs of the tabernacle, the west portal, the interior, the exterior façades, and some details of the Gothic windows in an attempt to persuade the national Commission for Historic Monuments, of which he himself was a member, to declare the church a historical monument. In this correspondence, the director classified the building among the fifteenth-century Gothic churches, with a Renaissance west gate, Gothic windows with stone moldings, a nave covered with a coffered ceiling, and a vaulted sanctuary with terracotta ribs.[89] The reaction of the Commission and the Reformed Church was favorable, and they appointed his second architect, Ottó Sztehlo, to coordinate the works.[90] The last letter concerning this project refers to a first visit by Sztehlo to the site in the spring of 1916,[91] which probably did not take place due to the events of the First World War.

[83] Colecția MNIT, no. C1 2054/1–5; SJCj AN, SMA Fonds, no. 5/1898, 2–3 (Letter of the Count János Sándor to the historian Lajos Szádeczky about the sarcophagus, Târnăveni, 30 April 1897); Mikó 2001, 212–316; Mihály 2009, 164; Vincze 2014, 230. The monument is currently in the medieval lapidarium of the National Museum of Romanian History.

[84] SJCj AN, SMA Fonds, nos. 163/1915, 285/1915, f. 62. (Letter of Lajos Kelemen to the parish priest József Erős, Cluj, 28 September 1915); Mihály 2009, 143, 146–147; Vincze 2014, 229.

[85] Vincze 2014, 229.

[86] Colecția MNIT, nos. C1 2475/1–15, 2475/6; Mihály 2009, 144, 150–151; Vincze 2014, 230.

[87] Colecția MNIT, nos. C1 2475/5 (203/1915), 2475/7 (209/1915).

[88] Colecția MNIT, nos. C1 2475/9 (220/1915), 2475/11 (232/1915), 2475/12 (231/1915).

[89] Colecția MNIT, nos. C1 2475/11 (232/1915). The photos are no longer kept in the museum's archives.

[90] Colecția MNIT, nos. C1 2475/13 (238/1915), 2475/10 (263/1915).

[91] Colecția MNIT, nos. C1 2475/14 (302/1915), 2475/15 (323/1915).

Following the death of Director Béla Pósta on 16 April 1919, one of the most prosperous and dynamic periods in the history of the Numismatic and Antiquities Collection came to an end, characterized by intense activity aimed at enriching the collections, the first European-level exhibitions open to the public, and the publication of the institution's first yearbook.

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Fig 1. The Roman and medieval lapidarium in the Cluj university basement, 1907 (Pósta 1907b).

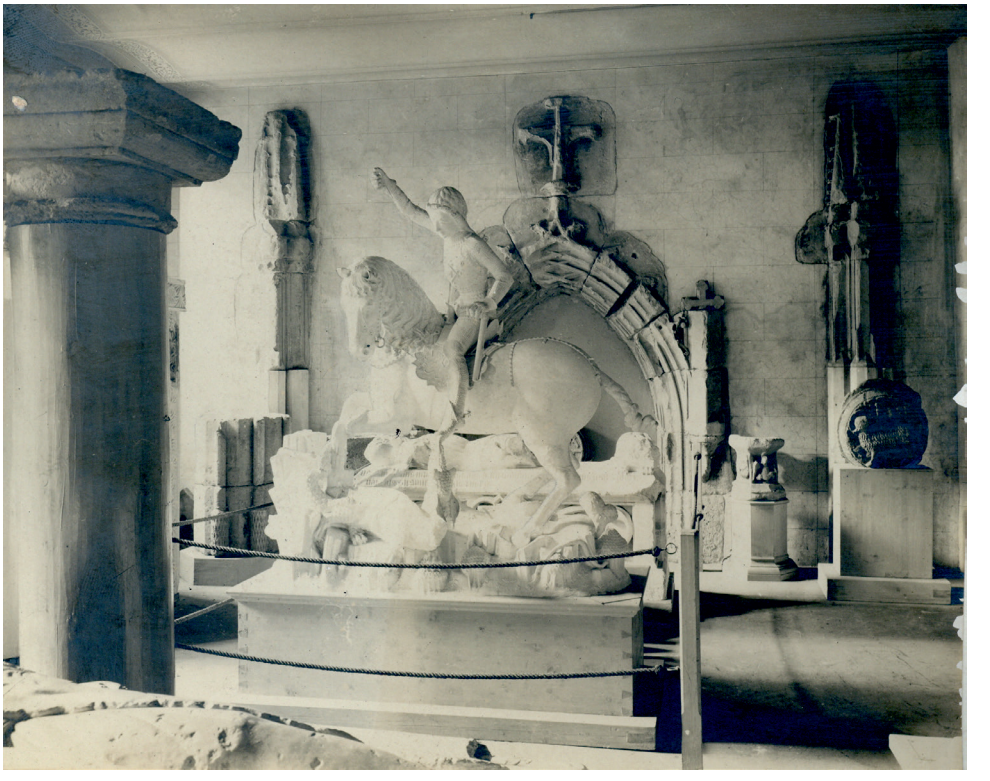


Fig. 2. The copy of the statue of St. George from the Roman and medieval lapidarium in the Cluj university basement (MÉM-MDK Photo Library, no. 147903).



Fig. 3. The Romanesque baptismal font in its original location, the Roman-Catholic Church in Someşeni (SJCj AN, Lajos Kelemen Fonds, box 118, no. 270).



Fig. 4. Details of the late Gothic portal of the former Benedictine Monastery in Cluj-Mănăştur, in the Cluj university basement (SJCj AN, SMA Fonds, box 203, no. 65).



Fig. 5. Bishop László Geréb's coat of arms in the medieval lapidarium on Bastion St. (Cluj County) (SJCj AN, SMA Fonds, box 118, no. 709).



Fig. 6. The tabernacle of the former Calvinist Church in Coveș (Sibiu County), in its original location (SJCj AN, Lajos Kelemen Fonds, box 118, no. 582).



Fig. 7. The portal with the coat of arms of Adrian Wolphard originating from the Wolphard-Kakas House, in the medieval lapidarium on Bastion St. (SJCj AN, SMA Fonds, box 203, no. 66).



Fig. 8. The two fireplaces of the Wolphard-Kakas House, in the lapidarium in the Cluj university basement (MÉM-MDK Photo Library, no. 018.250P).



Fig. 9. The statue of Christ at the Column, from the Roman-Catholic church in Cluj-Mănăștur, in the lapidarium on Bastion St. (SJCj AN, SMA Fonds, box 203, no. 67).



The central square in Cluj, ca. 1863–1869 , photo by Ferenc Veress

HISTORICAL STUDIES

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JOHN HUNYADI'S ANTI-OTTOMAN CAMPAIGNS AND THEIR SOURCES. A CASE STUDY: THE ANONYMOUS CZECH REPORT ON THE BATTLE OF KUNOVITSA (2 JANUARY 1444)[*]

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Abstract: The Long March in the winter of 1443–1444 is one of the best-documented episodes of John Hunyadi's military career. Christian and Ottoman sources alike provide detailed accounts of the routes, tactical maneuvers, and battles of the two opposing armies. Over a century and a half ago, an anonymous Czech report on the battle of Kunovitsa on 2 January 1444 entered the historiography, but it was preserved only in the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens," published in Prague in 1543 by the humanist Jan Chocenský. This late compilation has raised many questions among historians about the author and the origin of the report. Based on the 1859 Czech edition by Hermengild Jireček and the 1886 German translation by Prof. Dr. Gindely, we aimed in this paper to identify the elements and sources of the narrative in the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" and to what extent its central element, the anonymous Czech report on the Battle of Kunovica, is confirmed by other sources.

Keywords: John Hunyadi, Wladislas Jagiello, Murad II, the later Crusades, the Long March

Rezumat: Campania cea Lungă din iarna anului 1443–1444 este unul dintre cele mai bine documentate episoade ale carierei militare a lui Iancu de Hunedoara. Surse creştine şi otomane deopotrivă relevă în amănunt traseele, manevrele tactice şi bătăliile celor două oşti combatante. De peste un secol şi jumătate a intrat în circuitul istoriografic un raport ceh anonim privind bătălia de la Kunovitsa din 2 ianuarie 1444, păstrat însă prin intermediul „Cronicii despre marea campanie a creştinilor împotriva păgânilor turci," publicată la Praga în 1543, de către umanistul Jan Chocenský. Această compilaţie târzie a ridicat în rândurile istoricilor multe întrebări în legătură cu autorul şi cu orginea raportului în cauză. Pornind de la ediţia în limba cehă datorată lui Hermengild Jireček din 1859 şi de la traducerea germană realizată de Prof. Dr. Gindely în 1886, am încercat în prezenta lucrare să identificăm elementele şi izvoarele naraţiunii din „Cronica despre marea campanie a creştinilor împotriva păgânilor turci", precum şi în ce măsură elementul central al acesteia, raportul ceh anonim despre bătălia de la Kunovica, este confirmat de alte izvoare.

Cuvinte cheie: Iancu de Hunedoara, Vladislav Jagiello, Murad al II-lea, cruciadele târzii, Campania cea Lungă

A significant number of documentary and narrative sources, Christian and Ottoman alike, reveal the succession and chronology of events during the Long March in the winter of 1443–1444, being thus one of the best documented and well-known

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episodes of John Hunyadi's military career.[1] However, there is an intriguing account of the battle of Kunovitsa, which is compiled in the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" (*Kronika o pohnuti křestianuov znamenitem proti Turkuom Pohanuomi*),[2] published in Prague on 1 January 1543 by the Czech Humanist Jan Chocenský.[3] The original Czech text of this source was published by Hermengild Jireček in 1859, and translated shortly after into German by Prof. Dr. Gindely for Alfons Huber's study on the Hungarian-Ottoman warfare of the years 1440–1443, published in 1886. According to the latter Austrian historian, the author of this report was a common veteran who did not have an overview of the campaign and the battle, relating only what he saw and experienced.[4] Constantin Jireček, Leopold Kupelwieser, and, more recently, John Jefferson attributed this report to the Czech mercenary captain Jenik z Meckova,[5] but as already stated by Mihail P. Dan in 1944, the text refers to this character in the third person.[6] Furthermore, Jenik z Meckova is attested as captain of the Hussite-style war wagons, whilst the author of the report appears to have served as a mercenary horseman, as he refers only to cavalry skirmishes between Christians and Ottomans.[7]

Despite some inconsistencies inherent to all sources preserved through late copies and compilations, many details of this account are confirmed by independent sources that are contemporary with the recorded events, which confer an intriguing character. Thus, a legitimate question is whether this source can be accepted as an eyewitness report, as the former historiography rather hasty accepted it, or if it is a mere compilation of sources that are still traceable today. In order to answer this question, we need to analyze separately each of the four elements that can be distinguished already from a first reading of this narrative: a first preamble (I), a paragraph on the composition of King Wladislas' host (II), a second preamble (III), and the actual report on the battle of Kunovitsa (IV).

I. The first preamble already announces the terrible defeat suffered in 1443 by the heathen horde at the hands of the Christian host of King Wladislas, who even managed to capture the son-in-law (sic!) of the Turkish Emperor, along with many other of the latter's nobles. Even before entering the enemy territory, the king secured three major victories over the [Great] Turk, who, burning everything behind, attempted to retreat overseas but was allegedly hindered by the fleet armed by the king of France, Venice, and the Papacy. Thus, the Turkish Emperor was forced to accept the battle with King Wladislas by a large, unnamed city, eleven miles long and nine miles wide. According to the Hungarian lords, here was fought the greatest of all battles, in which King Wladislas managed to defeat the [Great] Turk like no other Christian king before him.[8]

[1] Teleki 1852, 332–362; Huber 1886, 176–207; Fraknói 1896, 28–36; Kupelwieser 1899, 68–82; Elekes 1952, 171–215; Zsolnay 1967, 57–66; Mureşan 1968, 81–95; Dan 1974, 104–113; Held 1985, 91–99; Jefferson 2012, 295–356 (a comprehensive analysis, with some inaccuracies); Pálosfalvi 2018, 105–120.

[2] Jireček 1859, 157–159 (original Czech text); Huber 1886, 197–200 (German translation).

[3] Storchová 2020, 255.

[4] Huber 1886, 200.

[5] Jireček 1876, 364; Kupelwieser 1899, 69 (footnote 14); Jefferson 2012, 352 (footnote 201).

[6] Dan 1944, 123–124 (footnote 147).

[7] Jireček 1859, 157–159 (original Czech text); Huber 1886, 197–200 (German translation).

[8] Jireček 1859, 157 (original Czech text); Huber 1886, 198 (resumative German translation).

It is evident that this preamble refers to the Long March in the winter of 1443–1444, which is well known in the recent historiography: after several skirmishes and the great battles of Niš (3 November 1443), Zlatitsa (12 December 1443) and Meshtitsa (24 Decembrer 1443), while retreating towards Hungary, the rearguard of King Wladislas' host, commanded by Voivode John Hunyadi, defeated the Ottoman cavalry forces sent out on their trail by Murad I, at Kunovitsa, in western Bulgaria (2 January 1444), capturing Candarlı Mehmed Celebi, the sultan's brother-in-law, and brother of grand vizier, Halil Paşa.[9]

The first question that arises is what the sources of this text are, because it is obvious that it originates from an earlier Central European source. "Real-time newsletters" of the Long March were sent by King Wladislas, Voivode John Hunyadi, and Cardinal Giuliano Cesarini to their friends and allies back home.[10] The first "inventory" of the battles fought during the Long March of 1443–1444 is listed in two donation deeds from 30 January 1453, issued by King Ladislas the Posthumous as rewards for John Hunyadi's political and military merits, including his six battles (*sex prelijs*) he fought during the Long March of 1443–1444.[11] The two charters served as sources for the *Chronica Hungarorum* written by János Thuróczy, who also mentioned the six battles fought by John Hunyadi during the Long March in the winter of 1443–1444.[12] On the other hand, John Dlugosz records in his *Annales seu Cronicae Incliti Regni Poloniae* only three battles fought by King Wladislas and Voivode John Hunyadi with Sultan Murad II during the Long March in the following order: Niš (3 November 1443), Kunovitsa (2 January 1444), and Zlatitsa (12 December 1443).[13] Of course, the Polish chronicler twists the succession of these military events, recording the capture of the "Anatolian voivode" [Candarlı Mehmed Celebi] before the decisive battle of the Zlatitsa Pass, which he also wrongly dated on the Christmas Eve of 1443. Finally, the Serbian Janissary, Konstantin Mihailović, records in his *Memoirs* "How King Vladislav Marched With the Despot [George Branković] Against the Turkish Emperor Morat Himself." Without mentioning John Hunyadi at all, the Serbian Janissary recorded generically the first battles and skirmishes fought between the Christians and the Ottomans in Serbia and Bulgaria, and described only the battles of Zlatitsa and Kunovitsa, which were allegedly fought only by Despot George Branković.[14]

Because, by the mid-sixteenth century, the anonymous author of the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" recorded in the first preamble of the Czech report on the battle of Kunovitsa only three victories of King Wladislas over the "Turkish Emperor," and that he does not mention John Hunyadi at all, one might conclude that his source might have been the *Memoirs* of Serbian Janissary, Konstantin Mihailović, a very popular "Turkish Chronicle," that circulated in many Czech, Polish and German variants throughout the sixteenth century.[15] Furthermore, the same

[9] Jefferson 2012, 295–356; Pálosfalvi 2018, 105–120.

[10] Wolkan 1909, 68–75, 281–283 (footnote b); Muratorius MDCCXXXI, col. 674–675; Fejér 1844, 55–58; Gündisch 1975, 122–123, 123–125.

[11] MNL OL, DL 37618/Teleki 1853, 351–352; MNL OL, DL 37617/Teleki 1853, 360.

[12] Thurocz 1985, 248–250; Thurocz 1988, 329.

[13] Dlugossi 2001, 284–287.

[14] Mihailović 2011, 33–34.

[15] Mihailović 2011, xxi–xxiii.

anonymous author literally stated that he also resorted to some testimony of the Hungarian lords as a second source to prove that *this* was the greatest victory won by a Christian king over the [Great] Turk.

Finally, it seems that the primary source was paraphrased from memory by the sixteenth-century author, thus explaining his confusions and generalizations in the text, which has also been altered by some vague information about the French, Venetian, and Papal galleys that allegedly hindered the Turkish Emperor from retreating overseas, thus forcing him to accept the decisive battle with King Wladislas. As already noted by Alfons Huber in 1886,[16] these are distorted echoes of the information that circulated throughout Christendom about the crusader fleet, which actually failed in its mission to hinder Murad II from crossing over the Bosphorus (but in the opposite direction, from Asia Minor to Europe!) in the fall of 1444.[17]

II. The next element that precedes in the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" the anonymous Czech account of the battle of Kunovitsa is the paragraph about the composition of King Wladislas' great host, which enlisted all the Christians formerly enslaved by the Turks for many years (thus knowing well the latter's warfare), 600 Hussite-style war wagons commanded by the aforementioned captain (*rothmistr*) Jenik z Meckova, and the Hungarian lords who refused to fight within the wagenburg, but only in an open field (of course, as cavalry units!).[18]

Cardinal Giuliano Cesarini confirms, as an eyewitness of the crusades of 1443–1444 and 1444, that, during the Long March, King Wladislas' host was joined by 8,000 Serbians under the command of Despot George Branković, 600–700 Bosnian horsemen headed by their voivode, Piotr Kovačević, and some (*aliquos*) Albanian fighters.[19] Furthermore, the official chronicle of the events written at the Sublime Porte, entitled *Gazavat-ı Sultân Murâd b. Mehemmed Hân* (further quoted as *Gazavatnâme*), records that the "infidel army" was joined by a group of Bulgarian light horsemen, *voynuk*, who served as scouts to the vanguard commanded by John Hunyadi.[20] Thus, the detail regarding the Christians who joined King Wladislas' army is confirmed by these two independent sources.

The same *Gazavatnâme* and the Ottoman chronicler Oruc bin Adil mention several times the Hussite-style war wagons packed with portable fire weapons and artillery that marched along with King Wladislas' and *Janko*'s army.[21] It is well known that, as early as the spring of 1443, John Hunyadi commissioned the Transylvanian-Saxon craftsmen of Kronstadt to build several Hussite-style war wagons under the guidance of a Bohemian.[22] However, most war wagons were hired along with the Bohemian Hussite infantry that manned them. Thus, on 28 June 1443, Cardinal Juan de Carvajal wrote to Frederick III of Habsburg that King Wladislas was about to hire the Bohemian footmen under the command of Captain Jan Čapek, but the Hungarian-Polish sovereign was still waiting for a

[16] Huber 1886, 198 (footnote 2).
[17] Jefferson 2012, 393–398, 422–424, 432–442; Pálosfalvi 2018, 129–130, 131–132.
[18] Jireček 1859, 157–158 (original Czech text); Huber 1886, 198 (resumative German translation).
[19] Wolkan 1909, 281–283 (footnote b).
[20] Imber 2006, 56–57.
[21] Imber 2006, 48, 50, 59, 60, 61, 62, 63, 66; Guboglu, Mehmet 1966, 54.
[22] Gündisch 1975, 110–111, 116–117.

loan from his Transylvanian voivode, John Hunyadi.[23] Finally, the Hussite infantrymen and war wagons were hired, and they joined King Wladislas' army in the Long March of 1443–1444.[24] Generally, the historiography accepted as plausible the number of 600 Hussite-style war wagons recorded by the Czech account of the battle of Kunovitsa.[25] A further argument in this respect is that the Franciscan friar Andreas de Palatio, an eyewitness to the Varna Crusade, noted that in the fall of 1444, the host of King Wladislas was accompanied by 2,000 war and transport wagons.[26] It is plausible to imagine that at least a quarter of these vehicles – that is, 500 – must have been Hussite-style war wagons. Finally, the historians accepted the detail that the Hussite-style war wagons were commanded during the Long March by the captain (*rothmistr*) Jenik z Meckova,[27] albeit no other source mentions the latter. Nevertheless, the primary author of this paragraph considered it important to mention the name of Jenik z Meckova, which suggests some connection between the two and the fact that both lived in the mid-fifteenth century. Around 80 years later, this narrative was collected through the filter of at least one compiler by the anonymous author of the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens."

Around 1480, John Thuróczy and John Dlugosz mention in their chronicles the Hungarian lords and knights who formed the core of King Wladislas' host.[28] The most recent historian of the Hungarian-Ottoman military conflicts in the Late Middle Ages, Tamás Pálosfalvi, revealed 10 donation charters issued between 1444 and 1447 by King Wladislas and John Hunyadi (as Lord Governor of Hungary) as rewards for the Hungarian lords and nobles who fought during the Long March.[29] John Hunyadi's noble retainers from Transylvania, like Ladislas Gerendi, Chindriş of Sălaşul de Sus, John Cândea of Râu-de-Mori, Nicholas Pogány, Henry Szindi, John Ungur of Băieşti, and Nicholas of Bizere, were rewarded separately for the bravery demonstrated during the battles of the Long March in the winter of 1443–1444.[30]

By the mid-fifteenth century, the noble levy formed the bulk of the cavalry host of the Hungarian Kingdom, consisting of 1/3 men-at-arms and 2/3 light mounted lancers and archers.[31] The military events during the Long March demonstrate that the Hungarian noble horsemen never fought behind the Hussite-style wagenburg, as rightly stated by the original author (contemporary of Jenik z Meckova) of the paragraph that precedes in the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" the anonymous Czech account of the battle of Kunovitsa. The Hungarian noble horsemen used mobile cavalry tactics, covering long distances in short periods of time, charging, simulating retreats, and counterattacking. Moreover, King Wladislas commanded the bulk of the army, which marched alongside the Hussite-style wagenburg, while Voivode

[23] Chmel 1837, 113–114.

[24] Dan 1944, 121; Jefferson 2012, 321; Pálosfalvi 2018, 111.

[25] Dan 1944, 121, 124; Jefferson 2012, 207, 321; Pálosfalvi 2018, 111.

[26] Lewicki 1891, 461.

[27] Dan 1944, 121, 124, 126; Jefferson 2012, 320, 349.

[28] Thurocz 1985, 248; Dlugossi 2001, 287–288.

[29] Pálosfalvi 2018, 108, 110 (footnote 120).

[30] MNL OL, DL 13757; Densuşianu 1890, 709, 761–762; Magyari 1907, 93; Szabó 1868, 32–34, 38–40; Mór 1911, 561; Pascu et alii 1977, 375–377, 394; Gündisch 1975, 210–211.

[31] Cîmpeanu 2024, 109–113.

John Hunyadi commanded the cavalry vanguard that managed to defeat all Ottoman resistance while crossing the Balkans. During the retreat, Hunyadi's cavalry remained in the rearguard, securing again the bulk of Wladislas' army from Ottoman attacks like the one at Kunovitsa.[32]

III. After the paragraph about King Wladislas' host, in the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" there is a second preamble preceding the Czech account of the battle of Kunovitsa, announcing again the great battle that was fought in the year 1443, three days after St. Luke's Day [21 October], between King Wladislas of Poland and Hungary and the Tatar (sic!) Emperor, whose son-in-law, married to the latter's daughter, was captured by the Christians together with other heathen nobles, and the king's threefold victory over the Turks even before entering their lands, inflicting on them greater damage than any other Christian king before.[33]

It is very likely that the anonymous author of the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" paraphrased in this second preamble the *Memoirs* of the Serbian Janissary as in the case of the first preamble. Similar elements might indicate that the two preambles were written by the same author in the mid-sixteenth century. It may also explain the flagrant confusions in the text, such as the fact that the sultan is referred to as "the Tatar Emperor," and the fact that the captured pasha was allegedly married to the sultan's daughter. In reality, Candarlı Mehmed Celebi was married to the sister of Sultan Murad II. The indicated date of the event, "three days after St. Luke's Day," meaning 21 October 1443, is also incorrect, as it is well known that the battle of Kunovitsa took place on 2 January 1444.[34] By mid-October 1443, the Long March had just begun,[35] but two weeks later, on 6 November, the bulk of King Wladislas' army defeated a strong Ottoman contingent led by *Burhemben* and *Ezemben*, who were both captured by the king's men. On the same day, or soon after, Wladislas Jagiello wrote about this victory to his Hungarian and Polish subjects.[36] Through King Wladislas' letter, this "great victory" was common knowledge among the political and intellectual elite of Central Europe. Thus, by the mid-sixteenth century, the author of the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" may have interpolated in the second preamble, which precedes the anonymous Czech account of the battle of Kunovitsa, the narrative of this early military event of the Long March, originating in King Wladislas' letters.

IV. Finally, in the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" follows, after the second preamble, the actual anonymous Czech account of the battle of Kunovitsa, recording the testimony narrated in the first person, allegedly by a veteran of the Long March in the winter of 1443–1444. The story begins in the midst of battle, when the Christian forces managed to break the center of the Ottoman battle lines, chasing the fugitive Turks for four miles, up to a nearby hill, where they regrouped around their flags for a counteroffensive. Nevertheless, "we" were not allowed to attack them because the Christians were called back to their own flags in order to regroup for a general

[32] Jefferson 2012, 295–356; Pálosfalvi 2018, 105–120.
[33] Jireček 1859, 158 (original Czech text); Huber 1886, 198 (German translation).
[34] Jefferson 2012, 352; Pálosfalvi 2018, 118
[35] Jefferson 2012, 324; Pálosfalvi 2018, 112.
[36] Lewicki 1891, 445–446.

assault. In the sound of war drums and trumpets, the Christian horsemen charged headlong with their lances against the Turkish battle lines, putting to flight not only the center, which seems to have returned to its initial position, but also the two wings, which resisted their first charge. The Turks fled downhill to an oak thicket where they got tangled, falling off their horses and losing their weapons. By nightfall, the Christian cavalry chased the bulk of the enemies to a shallow river, where 5,000 Turkish horsemen tried to hold position to hinder their foes from crossing. The Christian cavalry managed to break this resistance of the Turks, chasing them further through the night up to their main army corps, which had already pitched camp. Frightened by the great number of campfires but still hoping that the enemy emperor was not present, the Christian cavalry charged headlong, in the sound of war cries, drums, and trumpets, routing the camp of the Turks. There was no time for looting, as King Wladislas called together his 1,500 horsemen by drumbeats and hastily knighted some of them. When their battle lines were restored, the Christian cavalrymen realized that they had captured a high-ranking Turk, who was the master of transmarine Anatolia and the son-in-law of the Turkish Emperor, while his father married the latter's sister (sic!). There were also rumours that the legendary Turahan Beğ himself would have fallen in this fierce battle. After this unexpected victory, King Wladislas' horsemen crossed the forest towards their main army corps, which they reached by midnight. The sight of the Christian camp was desolate, the war wagons were scattered, while the men were starving to death. The anonymous author of this account reflects on the fact that if God had imposed a defeat on King Wladislas in this challenging moment, the latter would have lost his entire army. Fortunately, after this major battle, the enemies did not resume their attacks on the king's host, thus the latter could retreat in peace.[37]

The primary sources of the battle of Kunovitsa are a report sent by John Hunyadi to the Transylvanian-Saxons of Kronstadt on 6 January 1444, the *Gazavatnâme*, the *Memoirs* of the Serbian Janissary, the *Chronica Hungarorum* of John Thuróczy, and the *Decades Rerum Ungaricarum* written by the latter's compiler, Antonio Bonfini, as well as *The Histories* of Laonikos Chalkokondyles. All these sources agree that Sultan Murad II sent Turahan Beğ, Balaban Paşa, and Çandarlı Mehmed Celebi at the head of 5,000–6,000 horsemen from Rumelia and Anatolia to attack King Wladislas' host, which pitched camp at Kunovitsa, between the densely forested hills of western Bulgaria. Scouts reported the inevitable Ottoman attack days before, thus Wladislas Jagiello, John Hunyadi, and George Branković had enough time to set an ambush in this hilly region: on the two forested slopes were hidden handgunners on foot, while the road in the valley was blocked by the rearguard cavalry commanded by the king, the Transylvanian voievode, and the Serbian despot. On 2 January 1444, the Ottomans reached the battle formation of the crusader army, unaware of the ambush in which they were about to be caught. The cavalry charge led by Wladislas Jagiello, John Hunyadi, and George Branković was backed by the projectiles shot by the hidden handgunners from the slopes of the valley. Consequently, the Ottoman horsemen had no other choice but to retreat east. The swift *akıncı* raiders of Turahan Beğ and the other horsemen from Rumelia managed to escape, while the Anatolian troops of Çandarlı Mehmed Celebi struggled their way through the snow under the constant attacks of the cavalry led by Wladislas John Hunyadi and George Branković. The fighting lasted

[37] Jireček 1859, 158–159 (original Czech text); Huber 1886, 199–200 (German translation).

until the third watch of the night – that is, around 9 pm – when John Hunyadi and George Branković managed to defeat and capture Çandarlı Mehmed Celebi. The precious prisoner was taken "by moonshine" in the crusader camp at Kunovitsa.[38]

The Czech account of the battle of Kunovitsa does not contradict the other sources but rather complements them, especially concerning the latter stage of this military event. Thus, we learn that, during the main clash between the two armies, a cavalry contingent of King Wladislas' host managed to break the center of the Ottoman battle lines, but was unable to follow the retreating enemy because the royal heralds called it back. Not only the crusader host but also the Ottomans regrouped and resumed the battle even more fiercely. An all-out charge of the Christian cavalry put the Ottoman horsemen to flight, chasing them to a nearby shallow river, which could only be the Nishava, that flows northwest into the Morava. At this river, a contingent of 1,500 horsemen led by King Wladislas broke the resistance of 5,000 Ottomans (the exact numbers as those indicated by the other sources of events!), following them further up to their main camp, which appears to be the vanguard of Murad II's main army. The king's cavalry charged again into the enemy camp, putting the Ottomans to flight and capturing a high-ranking Turk, who appeared to be Çandarlı Mehmed Celebi. Because of their low numbers, King Wladislas forbade his horsemen to pursue the Ottoman fugitives and ordered the retreat towards the main Christian camp, of course, at Kunovitsa. According to the anonymous author of the Czech report, the crusader camp was in total disarray, making it vulnerable to a further Ottoman attack that fortunately never came.[39]

The sources of the Long March in the winter of 1443–1444 do not mention any other military confrontations between the Crusaders and the Ottomans after the battle of Kunovitsa. Only Antonio Bonfini, who recorded an oral tradition from the Court of Matthias Corvinus, writes that a day after the battle of Kunovitsa, that is, on 3 January 1444, several crusader contingents led by John Hunyadi tried in vain to conquer the fortified positions of an Ottoman contingent, on a rocky mountain top. After several failed attacks by the artillery and troops, the king ordered his voivode to abandon the mission.[40] Despite the similarities to the battle of Zlatitsa (12 December 1443), it is plausible that this skirmish might have taken place, especially because the German *Minnesänger*, Michael Beheim, also recorded a similar confrontation between the Crusaders and the Turks on a rocky mountain top in his song about King Wladislas' crusades of 1443–1444 and 1444 (albeit he may have actually meant the battle of Zlatitsa!).[41]

Regarding the terrible state of the crusader camp, the Czech account of the battle of Kunovitsa is contradicted by several primary sources. A report sent by King Wladislas to the Senate of Florence on 2 July 1444, the *Gazavatnâme*, the *Memoirs* of the Serbian Janissary, a report received by the Teutonic Grand Master, Konrad von Erlichshausen, in February 1444, and the report of the Varna Crusade written by the Franciscan friar Andreas de Palatio agree that in the early days of the year 1444, the crusader army returned

[38] Gündisch 1975, 123–125; Imber 2006, 64–66; Mihailović 2011, 33–34; Thurocz 1985, 92–93; Bonfinis MCMXXXVI, 129–130; Chalkokondyles 2014, 57, 59.

[39] Jireček 1859, 158–159 (original Czech text); Huber 1886, 199–200 (German translation).

[40] Bonfinis MCMXXXVI, 135; Bonfinis 1976, 141.

[41] Karadja 1936, 25.

intact and in good order back to the Kingdom of Hungary.[42] Only the Polish chronicler John Dlugosz, who was generally hostile to the Hungarian Kingdom, and particularly to the Hunyadis, wrote about the total disaster of the crusader host of King Wladislas after the Long March in the winter of 1443–1444.[43] Of course, the anonymous author of the Czech report had a subjective view of the events, but he might have also been influenced, directly or indirectly, by Dlugosz's narrative.

Finally, regarding the physical participation of King Wladislas in the battle of Kunovitsa, the anonymous author of the Czech account appears to be contradicted by later sources, such as the *Memoirs* of the Serbian Janissary and the *Decades* of Antonio Bonfini. While the Serbian Janissary stated that Despot George Branković sought King Wladislas' military support but managed to defeat the Turks even before the latter reached the battlefield,[44] Antonio Bonfini recorded another oral tradition of the Hungarian Royal Court, according to which King Wladislas and his courtiers awaited the outcome of the battle in the main camp, leaving it only late at night to greet John Hunyadi, who just arrived with Çandarlı Mehmed Celebi in chains.[45] On the other hand, the anonymous author of the Czech account states that, after breaking the enemy lines at Kunovitsa, King Wladislas led the cavalry troop that overran the Ottoman camp, where he knighted several of his horsemen.[46] Moreover, this detail of the Czech account on the battle of Kunovitsa is also confirmed by a letter issued by John Hunyadi himself, who mentioned literally that King Wladislas was present at the battle of Kunovitsa: *quando superioribus annis Bulgarico bello Turcas ingenti strage, primo ad Morauam fluuium, deinde ad Cunouizam, praesente D. rege, profligauimus, capto ipsi exercitus Turcici duce Hasambego*.[47] This documentary source confirms that the anonymous author of the Czech account of the battle of Kunovitsa recorded facts, very possibly as a veteran of the Long March.

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The anonymous author of the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" compiled four different elements in the narrative of the battle of Kunovitsa: a first preamble announcing the greatest of all victories won by King Wladislas' host over the pagan horde of the Turkish Emperor and the capture of the latter's high-ranking relative; a paragraph listing the Balkan Christians, the Hussite-style war wagons led by the mercenary captain Jenik z Meckova, and the Hungarian nobles who composed the host of King Wladislas; a second preamble announcing again the great victory won by King Wladislas over the "Tatar" Emperor and the capturing of the latters' son-in-law; and, finally, an independent report narrating the final stage of the battle of Kunovitsa.

For the two preambles, the author of the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" paraphrased by the mid-sixteenth century an earlier text, most probably one of the Czech copies of the *Memoirs* written by the Serbian

[42] Iorga 1899, 404–405; Imber 2006, 66, 67; Mihailović 2011, 34; Jefferson 2012, 340 (footnote 54); Lewicki 1891, 460.

[43] Dlugossi 2001, 287.

[44] Mihailović 2011, 33–34.

[45] Bonfinis MCMXXXVI, 130; Bonfinis 1976, 141.

[46] Jireček 1859, 158 (original Czech text); Huber 1886, 199 (German translation).

[47] Katona MCCXC, 263.

Janissary. The two texts share common characteristics, such as listing only three battles during the Long March, describing only the great Christian victory at Kunovitsa, and not mentioning Voivode John Hunyadi at all.

The fifteenth-century documentary and narrative sources of the Long March confirm the information from the paragraph describing the host of King Wladislas, consisting of Hungarian noble levy, Hussite-style war wagons and their infantry crews, and Christian rebels from the Ottoman Balkans. The anonymous author of the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens" might have collected his information, directly or indirectly, from a testimony of someone who had some connection to the Bohemian mercenary captain Jenik z Meckova, whose name he specifically records, thus both living in the mid-fifteenth century.

Finally, the actual account of the battle of Kunovitsa is written in the first person, with the pronoun "we"/"us" occurring no less than 24 times. While the fifteenth-century sources, both Christian and Ottoman, agree that King Wladislas, Voivode John Hunyadi, and Despot George Branković attracted Turahan Beğ, Balaban Paşa, and Çandarlı Mehmed Celebi into an ambush at Kunovitsa on 2 January 1444, defeating them and capturing the latter high-ranking Ottoman official, who was also the brother-in-law of Sultan Murad II. Complementary to the mentioned sources, the Czech account of the battle of Kunovitsa reveals, from the perspective of a veteran, the final stage of this military confrontation, when a strong cavalry unit led by King Wladislas chased the retreating Ottomans up to their camp, overrunning it and capturing almost by chance the "son-in-law" of the Turkish Emperor. Finally, the participation of King Wladislas is also attested by a charter issued by John Hunyadi himself. Thus, the Czech account of the battle of Kunovitsa, as the fourth element in the "Chronicle of the Grand Campaign of the Christians against the Turkish Heathens," can be considered a credible source of the events, despite some distortions inherent in any source preserved through later copies or compilations.

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THE WANDERING UNICORN OF CLUJ. THE STORY OF THE THREE UNICORN PHARMACIES ACTIVE IN THE CITY BETWEEN 1732 AND 2015

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Abstract: The paper analyzes the history of one of the most frequently relocated and transformed pharmacies of Cluj (Hu. *Kolozsvár*, Germ. *Klausenburg*). Unlike the oldest pharmacy in town, which remained stable after privatization in both location and ownership, the Unicorn (Hu. *Egyszarvú*, Germ. *Einhorn*, Lat. *Unicornis*) has often changed owners and location. It was the second pharmacy to open in the city and one of the few pharmacies that could be inherited. It functioned for 283 years in three locations. This case study aims at correcting already published information and analyzing the history of this pharmacy in the context of Cluj and Transylvania between the eighteenth and the twenty first century, revealing political and administrative changes, the acceptance or rejection of religious orders, town planning transformations, trends in the ethnicity and gender of pharmacists, as well as marketing strategies and cases of competition among pharmacies.

Keywords: apothecary shop, history of pharmacy, history of marketing, Cluj, Transylvania

Rezumat: Lucrarea analizează istoria uneia dintre cele mai mutate și transformate farmacii din Cluj (magh. *Kolozsvár*, germ. *Klausenburg*). Spre deosebire de cea mai veche farmacie din oraș, care după privatizare a fost stabilă atât în ceea ce privește locația cât și proprietarii, farmacia Unicorn (magh. *Egyszarvú*, germ. *Einhorn*, lat. *Unicornis*) și-a schimbat frecvent proprietarii și relativ deseori locația. A fost a doua farmacie deschisă în oraș și una dintre puținele farmacii care puteau fi moștenite. A funcționat timp de 283 de ani în trei locații. Acest studiu de caz urmărește să corecteze unele informații deja publicate și să analizeze istoria acestei farmacii în contextul Clujului și al Transilvaniei între secolele al XVIII-lea și al XXI-lea, evidențiind schimbările politice și administrative, acceptarea sau respingerea ordinelor religioase, transformările urbanistice, tendințele privind etnia și genul farmaciștilor, dar și strategiile de marketing și concurența dintre farmacii.

Cuvinte cheie: farmacie, istoria farmaciei, istoria marketing-ului, Cluj, Transilvania

Introduction

The existence of three Unicorn pharmacies in Cluj (Hu. *Kolozsvár*, Germ. *Klausenburg*) between 1732 and 2015 has created some confusion, as expected. Pharmacies were bought and sold, transformed and updated; they changed name and sometimes location as well. This is also true for the pharmacies of Cluj-Napoca, where the most circuitous is the history of the Unicorn pharmacy that changed location three times, changed type of ownership four times (from religious to private, then public, and eventually private again),

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changed private owners countless times, and eventually even the name. It started out in 1732 as a Jesuit-run pharmacy, but after the order was expelled from Transylvania, it was bought by Tobias Mauksch, the most successful pharmacist of Cluj in the second half of the eighteenth century. Mauksch moved it (i.e., name, license, and artifacts) to the rooms of the first public pharmacy of the city (that he had also bought and moved to another location). After a while, Mauksch gave the Unicorn to his son-in-law, Michael Streicher, who left it to his heirs. The building housing Streicher's Unicorn was demolished at the end of the nineteenth century, and the pharmacy moved to yet another spot in the city center. In 1949, all private pharmacies were nationalized by the Romanian Communist regime, and the Unicorn continued to function in etatized form, changing its name to State Pharmacy Number 5. After the 1989 Revolution, following a law of 1991, the pharmacy was privatized again and functioned under different names until 2015, when it eventually closed. The 283 years of existence of the Unicorn pharmacy in Cluj reflect political and administrative changes, the acceptance or rejection of religious orders, town planning transformations, trends in the ethnicity and gender of pharmacists, marketing strategies, and competition among pharmacies.

The present article has two aims. First, it wishes to clarify the convoluted history of the Unicorn Pharmacy (pharmacies) in Cluj, identifying and, if possible, correcting errors in the existing bibliography. Second, it sets out to analyze, through this case study, the history of pharmacies in Cluj and Transylvania in general and to stress what its development reveals about their evolution between the eighteenth and the twenty-first centuries. The research questions focus on the reasons behind its remarkable longevity, the degree to which the history of pharmacy in Cluj is defined by general political trends or personal choices, and ultimately hazard, as well as on how one can define the identity of an apothecary shop that changes type, owner, location, and name. I was also interested in how the pharmacy's development reflects changes in the city in terms of population numbers, ethnic groups, languages spoken, town planning transformations, changes in the name of the central square, and the numbering of houses there, as well as how these aspects influenced the competition between local pharmacies.

In order to answer these questions, I have employed different types of primary sources, including written ones (manuscripts, almanacs, newspapers, local guides), visual ones (architectural plans, photographs, printed commercials and logos), and artifacts preserved in the Pharmacy Museum in Cluj-Napoca, part of the National Museum of Transylvanian History. I also strove to find relevant secondary literature, which was also rather difficult, considering the different types and languages of works mentioning the pharmacy. Methodologically, the most painstaking aspect was to reconstruct the pure chronological development of the Unicorn pharmacy(ies), especially considering that fact that data are often erroneous, sometimes conflicting, and at times incomplete. The main approach was comparative, attempting to understand this development in the wider context of Cluj and Transylvania.

My method was atypical and adapted to the long period covered by the study: I started by collecting data regarding the Unicorn Pharmacy in all preserved sources available to me, primary and secondary. I then structured the data in a table with the following columns: time (year, interval, or general period), degree of certainty of the chronological data, person

in charge, status (owner, owner's widow, tenant), ethnicity (if known or inferred based on the name), pharmacy name, associated language(s), address, other recorded data (such as telephone no.), source, and observations (especially stressing contradictions in published data). In order to answer the research questions, I then analyzed the data according to topic, making reference to comparative information regarding the other pharmacies of Cluj, the city's general development as well as the situation in Transylvania/Romania.

The many unicorns of Cluj

The Unicorn Pharmacy in the Jesuit complex

Despite local opposition,[1] the Jesuits managed to open a pharmacy in Cluj in 1732.[2] In 1731, the rector of the order's college had requested that a pharmacy be constructed "for the public good and the comfort of his own." It was a lavish pharmacy, with Baroque furniture and "the most beautiful stands, decorative wares and a laboratory richly equipped with copper mortars, cauldrons and distilling equipment," estimated at a value only comparable to the order's pharmacy in Bratislava.[3] The Jesuit pharmacy in Cluj was called Unicorn (Lat. *Unicornis*).[4] It was one of the popular pharmacy names throughout Europe, due to the association of unicorns with purity and the presumed miraculous healing properties of their horns. Narwal horns were believed to belong to unicorns, and many pharmacies adopted the name, displayed unicorn heads as shop signs, and, if able, displayed such horns inside.[5] It was also one of the preferred names for the pharmacies of the Jesuit order.[6]

The pharmacy initially worked for the internal needs of the college, but it also sold low-cost drugs or dispensed free medicine for the poor. The list of pharmacists running the pharmacy is known until 1773, when the order was disbanded, but there is some confusion in existing publications regarding their exact names, status, and activity periods.[7] The Jesuit employee lists for the province of Austria record the following sequence of *coadjutores* active as *apothecarii* for the college in Cluj: Michael Guett (sometimes spelled Gut, between 1732 and 1735), Josephus Reiser (1736, 1740–1753, 1756–1769), Johannes Reiser (1737–1739), Georgius Balásovics (1754–1755), Jacobus Neüssel (1770), and Athonius Schmadlpauer (1771–1773).[8] Josephus Reiser was in charge of the pharmacy for the longest period, by far, and, like Georgius Balásovics and Jacobus Neüssel, he was subsequently active at the order's pharmacy in Oradea as well.[9]

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[1] Tuka 2012.

[2] Older bibliographic works also mention, erroneously, the foundation of the Unicorn Pharmacy in 1685, as it features in several of the Hungarian Pharmacist Yearbooks published between 1900 and the 1940s (some though, such as the *Gyógyszerészek évkönyve zsebnaptár* 1900, 191, mention the year 1775). The date 1685 was thus adopted and published by László Tuka and Lajos Farkas (Tuka, Farkas 2012, 36–37) and subsequently by myself (Gruia 2018, 513).

[3] Ságі 1998, 266.

[4] Péter 2002, 11.

[5] Fischer, Fischer 2011.

[6] Péter 2002, 52.

[7] Tribel 1994, 93; Ságі 1998, 266; Péter 2002, 11–12; Gruia 2018, 513; Offner 2023, 248.

[8] I thank one of the reviewers for indicating this source and its online availability: *Catalogus personarum 1715–1734*; *Catalogus personarum1735–1752*; *Catalogus personarum 1753–1768*; Lukács 1995a, 589; Lukács 1995b, 9, 80, 152, 224.

[9] Péter 2002, 11.

The Jesuit pharmacy in Cluj was profitable, supporting the acquisition of scientific equipment for the mathematics and astronomy faculties of the Jesuit College.[10] Due to their intercontinental network, the Jesuits were able to procure exotic *materia medica*, obtaining a clear advantage over other pharmacies.[11] This advantage and the fact that they dispensed low-cost or even free medicines turned the Jesuits into strong competitors in the pharmaceutical business. Local opposition to them opening and operating pharmacies in the Habsburg Empire was so strong that the state intervened, deciding that the Jesuits had to pay taxes to the cities where their pharmacies also provided medicine to the general population, or they were even forbidden to do so in cities that owned public apothecary shops.[12]

Cluj did have a public pharmacy, opened sometime between 1561 and 1581 in one of the buildings around Saint Michael's parish church in the main square. That pharmacy had been privatized in 1710 and continued to function in that location, albeit with periods of discontinuity.[13] After 1723, the pharmacy remained closed until the subsequent pharmacist, Samuel Schwartz, took over in 1729 and married the widow of his predecessor in 1735. The Jesuits obtained the right to open their own pharmacy, possibly also taking advantage of the discontinuities in the activity of the public apothecary shop.[14]

The Jesuit pharmacy in Cluj was located in the one-story building attached to the southern side of the Jesuit church, near the typography and the library of the college complex, currently in the area of the Holy Trinity Roman Catholic Church (formerly the Piarist Church) and the Babeș-Bolyai University[15] (Fig. 1).

About 30 years after it started functioning in Cluj, the Unicorn gained direct access to the street and thus became an active competitor for the other, older pharmacy in town. The authorities only granted the Jesuits the right to open that door after the agreement of pharmacist Tobias Mauksch, the recipient of an exclusive imperial privilege of operating a pharmacy in Cluj since 1760.[16] The agreement stated that Mauksch would receive in compensation a certain quantity of wheat, wine, firewood, and cash[17] that was to be paid annually.[18]

Despite the off-center location of the Jesuit Unicorn Pharmacy, the area it opened to had become more prominent through the erection, after 1744 (likely in 1746), of the first public statue of the city there. The column surmounted by a depiction of the Immaculate Virgin was a *Pestsäule*, built after the end of the great plague epidemic of 1738–1740. Interestingly enough, the contract between nobleman Antal Kornis, who paid for the monument, and the sculptor also mentions 15 statues of saints and three statues of reclining unicorns (that do not feature in the monument's final version).[19] The Kornis coat of arms

[10] Tribel 1994, 93–94.
[11] Boumediene 2020.
[12] Tuka 2012, 15.
[13] Gruia 2023a, 173.
[14] Offner 2023, 240–241. The author believes the pharmacy might have been run by tenants.
[15] Orient 1926, 164.
[16] Gruia 2023a, 173.
[17] Orient 1926, 167, mentions a document preserved in the Hintz pharmacy in 1890 (since then lost).
[18] Orient 1933, 122.
[19] Kovács 2010. Between about 1753 and 1920 two statues of unicorns, possibly the ones initially created

featured unicorns, so these statues were likely a means of personal propaganda, but one cannot miss the possible connection with the Unicorn Pharmacy located nearby. Further research might even connect the site selection of this monument to the activity of the Jesuit pharmacy during the plague.

The exact location of the Unicorn Pharmacy is not known and preserved photographs of the building, albeit later, show a single entrance to the entire complex, and general access could not have been through the apothecary (Fig. 2). Still, the information regarding the door opening to the street might shed some light on the matter, as one of the ground floor windows might have been turned into a door and then, after the pharmacy was moved, reverted to the original function. The preserved photographs of the area date to the second half of the nineteenth century, thus more than a century after the pharmacy moved away, providing no indication of the exact location of the apothecary and its opening to the small square (Figs. 1 and 2). The building of the old Jesuit College (*Academia Claudiopolitana*) was constructed sometime between 1703 and 1734 and was demolished in 1893 (Fig. 2).[20] Nevertheless, both photographs show that the second ground-floor window from the church is wider than all the others, and in Fig. 1 even surmounted by a decorative element. The oldest known elevation drawing of the building, dated 1778, thus earlier than the photographs and just a few years after the closing of the pharmacy, shows the wider window surmounted by a canopy-like decoration (niche?) and a couple of steps in front of the window.[21] An 1803 ground plan reveals further differences, as the second room from the window (which at that time functioned as a *Cassa*) was wider than the others and lacked the back partition wall.[22] Considering the openings on this plan, the pharmacy might have occupied rooms 2 and 1, as the classical partition of pharmacies included an *officina*, a laboratory, a storage room, and sometimes also an office. On the ground plan, the *Cassa* also occupies both rooms, suggesting the continued use of 1 and 2 together. Based on these arguments, I suspect that the window in question was turned into a door when the Jesuit pharmacy obtained the right to do so and then partially built-in and turned back into a window after the pharmacy moved away. My hypothesis will hopefully be confirmed by further research into collections of Jesuit documents.

The Jesuit order was disbanded in 1773, and its pharmacy in Cluj was put up for auction in June 1774. It was acquired, unsurprisingly, by Tobias Mauksch himself.[23] It had functioned under Jesuit administration for 42 years with notable success and profitability. It must have been a serious enterprise, as it provided pharmaceutical aid to the students and teachers of the Jesuit College and others beyond it. By the time the order was disbanded, the academy included almost 500 students and teachers, representing about 20% of the adult male population of Cluj.[24]

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for the column, stood in front of the Loreto chapel that Antal Kornis funded near the Franciscan church in present-day Museum Square in Cluj.

[20] Biró 1945, 11.

[21] *Mariae Theresiae augustae Transylvaniae magnae principi bonarum artium matri haec architectonica specimina flexo poplite studiosi Claudiopolitani obtulerunt*, 1778. MNL OL, T 15, No. 36/I, fig. 39 (*Die alte Facciàta von P bis Q*). I thank Dr. Oana Toda for sharing this source.

[22] *Plan des sogenannten alten Collegiums zu Klausenburg*, 1803. MNL OL, T 75, No. 16/1. I thank Dr. Oana Toda for sharing this source.

[23] Ságí 1998, 266.

[24] Shore 2013, 58.

No artifacts have been preserved from this first Unicorn apothecary. Some sources mention that its copper cauldrons, laboratory equipment, a large iron mortar with artistic design, and possibly the year marked on it, as well as several "beautiful leather-bound medicine and pharmacy books printed in Latin," were still at the Unicorn pharmacy in the 1870s, in its subsequent location.[25] There are also mentions of a large commode that ended up in the collection of Gyula Orient, together with a stone mortar and "a few grams of Mummy pieces, a medicine that was once so popular with the Jesuits."[26] None can be identified in the present-day collection of the Pharmacy Museum in Cluj, and their whereabouts remain unknown.

The private Unicorn Pharmacy near St. Michael's church

In 1775, Tobias Mauksch, the privileged pharmacist of Cluj, moved the Unicorn to the rooms of the former public pharmacy of the city, in the corner of the south-eastern building around St. Michael's church. Mauksch had acquired two medieval houses in the corner of the main square, unified them, and designed a larger building with an attic for drying medicinal plants, an upper floor as living quarters, and a ground floor for the pharmacy and rented rooms for other businesses. He moved the former public pharmacy to the new location (currently known as the Mauksch-Hintz house), and the original site likely remained unoccupied or changed destination for some years. Two private pharmacies thus functioned in the main square of Cluj, the Unicorn and the Saint George, between 1775 and 1780, both owned by the same person (photographed almost a century later in Figs. 3 and 4). In 1780, Tobias Mauksch gave the Unicorn Pharmacy to his son-in-law, Michael Streicher, a Saxon from Sibiu (1748–1822, owner between 1780 and 1817).[27] It seems that demand for medicines was high enough in Cluj to support two apothecary shops, even in such close proximity.

The second Unicorn was commonly referred to as the Streicher Pharmacy,[28] as it was run first by Michael Streicher and then by his son, Samuel Gottlieb, and nephew, Michael Joseph.[29] In 1807, *protomedicus* Ferenc Nyulas inspected the pharmacies in Transylvania, including the ones in Cluj. His report on the Streicher Pharmacy has been preserved and is rich in information.[30] The *officina* was deemed suitable and included several antiquities (likely those of the Jesuit Unicorn), though the containers displayed in spectacular rows, many made of tin, were mostly empty and not in alphabetical order, so that one would sometimes have to search laboriously for something. Many inscriptions were partially erased or illegible. According to Nyulas, the laboratory was close at hand and furnished with equipment and furnaces, but cramped and so dark that he wondered how operations could be safely performed. The materials chamber was also close by, windy, and well-organized. There was a complete lack of order among the roots stored, but that was because repairs were being made to the house. The cellar was quite spacious but had no opening except for the main descent, which was almost vertical. The supply was estimated as sufficient,

[25] Orient 1926, 165.
[26] Orient 1933, 122.
[27] Offner 2023, 243.
[28] Gáll, Gergely, Nagy 2022, 88, fig. 3/B.
[29] Offner 2023, 248–249.
[30] Péter 2022, 87–88.

meeting the needs of the local community. Still, the doctor identified 12 spoiled medicines that were eliminated, as well as various poisonous drugs scattered about the *officina*. The weights and scales were accurate and followed the Viennese system, while pricing was set according to the purchase price rather than the list. The owner, Michael Streicher, was a talkative man, present in the pharmacy less often in the morning and more often in the afternoon, and not very interested in new things. He took care of medicinal plant collecting for the pharmacy and was a modest person, trying to serve the public as best as possible. He always had good assistants.[31]

Summarizing the results of his thorough examination of the two pharmacies in Cluj, Ferenc Nyulas recommended that both their owners be praised by the *Gubernium*, the supreme governing authority of Transylvania, directly subordinated to the Viennese court.[32] In 1807, the other pharmacy was run by Johann Martin Mauksch, one of Tobias Mauksch's sons,[33] so the two apothecary shops in the center were owned by brothers-in-law, and it remains unclear if and how they addressed their status as competitors. It might be the case that no competition existed since no other pharmacies were active at the time in Cluj – the third was founded in 1814, two years after Tobias Mauksch's privilege was cancelled by the local authorities.[34]

The label of a veneer box for medicines preserved from the pharmacy run by Michael Streicher (unclear if the first pharmacist or his nephew by the same name) mentions the owner and indicates that the Jesuit name had been maintained but was used in Hungarian translation: *Az Unicornishoz* (Fig. 3).[35] The original content (wild thyme, *Thymus serpyllum*) is still preserved inside the box. One should note the traditional use of Latin for medicine denominations, but the printed form in Hungarian, including the owner's name, was rendered as Mihály instead of Michael. No exact address is indicated in the printed form, just the city, suggesting the pharmacy was well-known and a landmark in itself.

The succession of pharmacists is not entirely known. In the middle of the nineteenth century, the Unicorn was run by József Khuda and subsequently by tenants for his widow. The label of another wooden box preserved at the Pharmacy Museum in Cluj-Napoca includes the name of the pharmacy, still in Hungarian, but in the modernized form of *Az Egyszarvúhoz* (Fig. 4).[36] Again, the printed label mentions the owner, the name of the shop, and the city, but not the exact address. It is also interesting to observe that the owner was more important than the pharmacist in charge, even if in this case the owner was a woman, József Khuda's widow. The inscription (*Schwefel eisen*, namely iron II-sulfide) is handwritten in German, as are other words noted on the other sides of the box, thus confirming the use of three languages in pharmaceutical practice during that period in Cluj: Hungarian, German, and Latin.

An 1859 photograph by Ferenc Veress depicts the Unicorn Pharmacy in the corner of the large stone building by St. Michael's church, with two pairs of wooden shutters flanking

[31] Péter 2022, 87–88.

[32] Péter 2022, 90.

[33] Gruia 2023a, 176.

[34] Gruia 2023a, 178; Offner 2023, 249.

[35] On display at the Pharmacy Museum, part of the National Museum of Transylvanian History; Colecția MNIT, no. IF 953, donated by Gyula Orient in 1907. Gruia 2023c, cat. 60.

[36] Colecția MNIT, no. IF 1032, donated by Gyula Orient in 1907. Gruia 2023c, cat. 65.

the two entrances, decorated with depictions of ancient-style busts. One also notes the existence of short flights of stairs one had to climb in order to enter the pharmacy (Fig. 5). On the right, in the background, one notes Tobias Mauksch's pharmacy that was, at that time, run by administrators, and looked a bit old-fashioned, with just a small semicircular cover above the entrance.

A bit more details are visible in Ferenc Veress' photography taken a couple of years later (Fig. 6). The two entrances of the Unicorn are surmounted by rectangular signs written in large capital letters with the word "Pharmacy" in Hungarian (*Gyógyszertár*), interestingly not including the name, while the shutters bear more detailed writings below the busts (unfortunately not legible on the reproduction). Tobias Mauksch's pharmacy shows much improvement though, as it had been taken over and restored by Dr. Georg Joseph Hintz, Mauksch's great-great-nephew.[37] That shop displays a large front towards the square, with the name in large letters above the entrance: *Dr. Hintz Gyógyszertára.*

Existing publications mention the names of owner József Engel[38] and employed pharmacist Ignatz Sperlagh working at the Unicorn during the 1860s and 1870s.[39] A medicine package from that period, for a variety of parsley seeds, mentions József Engel as owner, the name of the pharmacy in Hungarian (*Az Egyszarvúhoz*), and uses the depiction of a unicorn as logo, besides the main depiction of a child holding plants and a caduceus (Fig. 7).[40] The address is again very brief, with just the city mentioned. This is the first attested use of a unicorn as the visual marker of this pharmacy in Cluj.

Pharmacist Bogdán Ember was the subsequent owner of the Unicorn until about the mid-1870s,[41] followed by tenant János Biró until the late 1880s. János Biró was one of the longevous pharmacists of Cluj,[42] with several pharmacists having completed their practice in his shop.[43] Numerous wooden jars preserved at the Pharmacy Museum in Cluj still have the printed labels of the Unicorn Pharmacy that mention him as tenant (Fig. 8).[44] The same elements feature on these labels: the owner (in this case tenant, *bérlő*, a distinction clearly marked), the name of the pharmacy in Hungarian (*Az Egyszarvúhoz*), and the location (just the city).

The buildings around St. Michael's church were gradually demolished in the 1880s.[45] The one housing the pharmacy was already demolished in 1894.[46] The owner recorded in that year was Lajos Bogsch,[47] but his name is not mentioned on the printed labels recording

[37] Gruia 2023a, 176.

[38] Péter 2002, 316, who mentions the existence of a second pharmacist by this name who was assistant at the Golden Stag pharmacy in Târgu Mureș, but subsequently became a doctor and linguist (Péter 2002, 409).

[39] Offner 2022, 67.

[40] Colecția MNIT, no. IF 1277, Gruia 2023c, 123, cat. 89.

[41] Offner 2022, 67.

[42] Péter 2013, 179.

[43] Péter 2002, 320, 341.

[44] On display at the Pharmacy Museum, Colecția MNIT, no. IF 1759, obtained through nationalization. Gruia 2023b, 239–240, cat. 207.

[45] Gaal 2014, 39.

[46] *Kolozsvári Kalauz* 1894, the second photograph between pages 18 and 19.

[47] Tuka, Farkas 2012, 36.

the move (see Fig. 9). Despite the opinion of some specialists,[48] the Unicorn Pharmacy did not cease to exist once the building was demolished, but moved to a new location, though this does bring up the issue of when a pharmacy ceases to maintain its identity when changing location, owner and/or type of property.

The private Unicorn pharmacy in the Jósika palace

After the demolition of the buildings around St. Michael's church, the Unicorn Pharmacy was relocated to the western side of the square, on the right side of the ground floor of the Jósika palace (currently Unirii 10), where it appears in records starting with 1902. Furthermore, almost 170 artifacts from the Unicorn pharmacy ended up in the collection of the Pharmacy Museum through nationalization, and many are dated, based on preserved labels, to the nineteenth and twentieth centuries. The label in Figure 9, for example, reveals the continued existence of the pharmacy and the transfer of artifacts to be reused in the new location. The circular label inside a wooden jar, though partially erased, is clearly similar to the one in the previous figure, thus dating from the time of János Biró, but the more recent, rectangular label records the name and address of the pharmacy in *Mátyás Király tér*, as the central square was called at the beginning of the twentieth century.[49]

A photograph dated 1902 captures a corner of the new Unicorn pharmacy, on the ground floor of the Jósika palace, on the right side of the columns, surmounted by a sign in Hungarian marking the function of the shop, *Gyógyszertár*, doubled on the level of the first floor and surmounted by a depiction of a unicorn head (Fig. 10). Another photograph, though showing the pharmacy in the background, allows one to see the use of two, affronted unicorn heads flanking the second-floor window above the pharmacy entrance.[50] This shows an increased commercial competition in the area, with a doubling of visual markers – two pharmacy signs and two logos – just in order to make sure, through redundancy, that the apothecary shop was visible.

Due to the repeated changes of administration (1918, 1940, 1944), the history of the Unicorn pharmacy in the first half of the twentieth century is incompletely known. A 1933 commercial printed in the city's medical directory employs the following bilingual information: *Farmacia Unicorn Dr. Kohn, Egyszarvú Gyógyszertár, fondat 1685 Alapítva, Cluj, Piața Unirii 9, Telefon 11–38* (Fig. 11).[51] For the time, Cluj was under Romanian administration, during the Inter-War Period, the name was used in Hungarian form, *Egyszarvú*, as well as in Romanian translation, *Unicorn*. As for the identification data, the owner was still important, but also the full address (square name and number) and even the telephone, recently introduced to Cluj. The square was called *Unirii* in 1933, and the number was 9, following the renumbering of the houses.

Data published in pharmaceutical almanacs are prone to errors (such as the repeated mention of 1685 as foundation year of the Unicorn), but they record the following owners:

[48] Offner 2022, 67.

[49] In the collection of the Pharmacy Museum: Colecția MNIT, no. IF 1760, Gruia 2023b, 242–243, cat. 208.

[50] "Kolozsvár; Mátyás király téri részlet" / OSZK–Hungaricana.

[51] Péter 2013, 54, fig. 5.

Dr. Gyula Kohn in 1921,[52] 1925,[53] 1926,[54] and 1933 (see Fig. 11); in 1940 Gyula Orient, the well-known historian of pharmacy who seems to have acquired it in the very year of his death, owning it together with Zoltán Nagy;[55] in the 1940s the widow of Gyula Orient (*Orient Gyuláné*) with different administrators: in 1943 the Orient brothers (sic!) and Zoltán Nagy,[56] in 1944 the Orient brothers and company;[57] Dr. Orion in 1946;[58] and again Dr. Gyula Kohn in 1949, the year the pharmacy was nationalized together with all private pharmacies in Romania.

As for the aspect of the shop, no illustration of the pharmacy under the Romanian Inter-War administration has been preserved, but the depiction of the unicorn heads had been abandoned by the 1940s (Fig. 12). At that time, the store front had a single sign, in Hungarian, above the entrance (*Gyógyszertár*) and other signs on the shutters flanking it (unclear in the available photo, but possibly crosses).

State Pharmacy Number 5

In 1949, all private pharmacies, pharmaceutical laboratories, drugstores, as well as medical and cosmetic stores in Romania were nationalized. Appendix 1 of decree 134/2 April listed those in each county and settlement. For Cluj, it includes the pharmacy run by Dr. Gyula (Iuliu) Kohn in Piața Libertății 10 (listed under no. 16).[59] Under no. 29, one finds the former owner, Gyula Orient's widow, a pharmacist herself, together with their son, Tibor, and another man. Their pharmacy was located on Mărășești St. 17.[60]

The names of the pharmacies were not recorded in the legislative document, but likely it was still the Unicorn, while the name of the square had been changed to Freedom Square after the return of the Romanian administration, and the old house numbers were used again. After the nationalization, all memory of former owners or names was intentionally erased, and the pharmacies received numbers instead of names. The Unicorn became State Pharmacy Number 5 (*Farmacia de Stat nr. 5*), and it functioned as such in the same location for another 42 years.

The reprivatized pharmacy, Clematis Farm

Decree no. 15/10 January 1991 regarding the establishment of pharmaceutical companies marks the reprivatization of pharmacies in Romania, soon after the 1989 Revolution and the change of the Communist regime.[61] Local newspaper Adevărul de Cluj records the following names of the pharmacy functioning in Unirii 10: Farmacia 5 Clematis (in 1995–1998), Clematis Farm (in 1999 and 2001–2002), Nr. 5 Clematis (in 2000). The end of the pharmacy remains unclear, but it seems to have functioned until 2015. An online

[52] *Gyógyszerészek czimtára és zsebnaptára* 1921, 101.

[53] *Almanachul Farmaciștilor din România* 1925, 154.

[54] Tuka, Farkas 2012, 36–41. Another almanac records Dr. Kohn in 1941 (*Gyógyszerészek évkönyve* 1941, 767), likely erroneously.

[55] Tuka, Farkas 2012, 39.

[56] *Gyógyszerészek évkönyve* 1943, 418.

[57] *Gyógyszerészek évkönyve* 1944, 448.

[58] *Cluj–Kolozsvári Kalauz és Címtár* 1946, 46.

[59] Gruia 2023a, 192.

[60] Gruia 2023a, 192.

[61] HG 15/1991.

photograph dated 2007 shows the place surmounted by the sign *FARMACIE*, and a piece of online information mentions Clematis Farm in Unirii 10 in 2015.[62] In 2016, the location was occupied by a bar (L'Alchimiste, since 2023 Che Guevarra) and thus the history of the Unicorn ended after 283 years.

Pharmacy identity

The first topic of discussion, after the reconstruction of this convoluted history, is how we define the identity of a pharmacy. Is it the name of the shop? The owner, i.e., the person, family, institution, or religious order owning it? The location? The license? The issue has not been really debated as far as I am aware, likely because cases like that of the Unicorn pharmacy of Cluj are not very frequent. There is certainly no consensus regarding the identity of the Unicorn in time. I chose to see continuity throughout this complicated history, but several other approaches exist. First, there is the debate on when it was **founded**. One may argue that its story started one year earlier, in 1731, when the Jesuits were granted the right to open a pharmacy. But I believe a document does not a pharmacy make, as only its physical existence can mark the start of it. Some of the pharmaceutical almanacs published in the first part of the twentieth century mention that the Unicorn was founded in 1685, and the date was adopted, erroneously, in subsequent publications.[63] The first half of the twentieth century saw the proliferation of pharmacies in Cluj,[64] and it had become fashionable for the traditional shops to use the founding date as a marketing strategy. The Dr. Hintz pharmacy boasted the longest period of activity, since 1573 (though the source of this date remains unclear as well).[65]

The **name** of the pharmacy is attested rather consistently throughout its history (in its Latin, Hungarian, and Romanian versions: *Unicornis, Unikornis, Egyszarvú, Unicorn*), and I have also identified depictions of unicorns on *material medica* packages at the end of the nineteenth century and as shop signs in the first half of the twentieth century. The name only changed after nationalization, in 1949, when it became State Pharmacy no. 5 (*Farmacia de Stat nr. 5*) and then after the second privatization, in 1991, when it became Clematis. For pharmacies everywhere, the name was an important element of self-identity. The name had to be striking and easy to remember, so that one could easily identify the pharmacy and ideally return to it. In 1793, Tobias Mauksch explained the name Golden Stag that he gave the pharmacy he had acquired in Târgu Mureș thus: "I would have never ordered the painting of such an unusual pharmacy sign, but as the other pharmacist [in the city] is also called Mauksch I chose this **sign** so that even the last peasant knows my pharmacy."[66] The phrase is very interesting, as it shows that the first identity marker of a

[62] Business websites also indicate a stop of activity in 2015 (data for Clematis Farm SRL, fiscal code 2891318, registration number J12/4623/1992): https://harta.biz/cluj-napoca-cj/farmacii/farmacia-clematis-farm-unirii/.

[63] See also footnote 3. In 1685 the only pharmacy of Cluj was public and the Jesuits had been expelled from the city, so this founding date suggests the Unicorn was the second public pharmacy. The information cannot be verified from other sources.

[64] Gruia 2023a, 180–181.

[65] The date was first mentioned by Elek Jacab in 1870, and then in the twentieth century it was included in the pharmacy's printed materials and during the 1930s even on the façade. Offner 2023, 238; Gruia 2023a, 180, 182.

[66] Gruia 2018, 515.

pharmacy was the name of its owner (and in eighteenth-century Transylvania, there were very few of them), but it also shows that at that time, illiteracy among clients was still an issue, and pharmacy signs could thus be "read" (and memorized) by all. A unicorn was certainly exotic and memorable for Cluj, but it was also a powerful symbol, as the imaginary animal stood for purity, and its horn (mistaken for narwhal horns) had great fame as a cure-all. Interestingly enough, the shop also used other visual signs, such as the busts visible in photos taken right after the middle of the nineteenth century, and the text sign above the entrance does not mention any name. Other Unicorn pharmacies are attested in the area during the eighteenth century: a Golden Unicorn in Debrecen in 1772,[67] a Unicorn in Rimavská Sobota (Hu. Rimaszombat) in 1777,[68] and another in Cehul Silvaniei (Hu. Szilágycseh) in 1796,[69] but the name is rather rare by comparison with others such as Lion, Crown, Savior, Trinity, etc. I am wondering if, during its first decades of existence, it was known as the Jesuit or the Unicorn pharmacy. During the other periods, as previously mentioned, the **name of the owner** was more relevant than that of the pharmacy itself, especially when enough time had passed for it to become tradition. At the end of the eighteenth century and the first decades of the nineteenth century, the Unicorn Pharmacy was better known as the Streicher Pharmacy, as three men of that name owned it, forming one of the few dynasties of pharmacists in the city. Nevertheless, Nyulas' inspection makes no record of the Unicorn name, but focuses on the personal qualities and preferences of the owner. The best example of the owner's name being more important than the pharmacy name is the Dr. Hintz Pharmacy, owned by Hintz pharmacists between 1860 and 1949, which was marked at such even on the shop's facade signs. This pharmacy also had its own name, Saint George, but it was more rarely promoted and recognized as such, and for a while, between 1907 and 1911, the name was even changed to the Red Cross.[70] One cannot exclude that such short-lived marketing attempts were also made for the Unicorn pharmacy, but no records exist to the best of my knowledge. Still, as the Unicorn Pharmacy changed ownership rather frequently, the name was retained between 1732 and 1949 as a general identity marker, and I suspect it had become a local tradition. And it was only broken by the Communist Regime that intentionally removed mention of former names of pharmacies and owners, and just delegated numbers to the state pharmacies.

Location is another key element in the identity of a pharmacy. In this respect, the Unicorn was unusual in having functioned in three distinct locations. For the first 42 years, it was active in the Jesuit complex, for the next 119 years it was in the middle of the central square, and for the last 121 years in the Jósika palace, on the side of the same square. The first spot is off-center, but it was selected for considerations other than marketing. The pharmacy provided aid to members of the Jesuit order and their numerous students, and the pharmacy was thus placed amid the buildings used for these purposes. In the final

[67] *Budapesti gyógyszerész testület évkönyve* 1948, 1101, 1076; *Gyógyszerészek évkönyve* 1944, 418; *Gyógyszerészek évkönyve* 1943, 418; *Gyógyszerészek évkönyve* 1942, 329; *Gyógyszerészek évkönyve* 1941, 737, *Gyógyszerészek évkönyve* 1940, 590; *Gyógyszerészek évkönyve* 1939, 448; *Gyógyszerészek évkönyve* 1938, 328; *Gyógyszerészek évkönyve* 1937, 439.

[68] *Gyógyszerészek évkönyve* 1944, 484; *Gyógyszerészek évkönyve* 1943, 485; *Gyógyszerészek évkönyve* 1942, 395, *Gyógyszerészek évkönyve* 1940, 643; *Gyógyszerészek évkönyve* 1939, 538.

[69] Péter 2013, 122; *Gyógyszerészek évkönyve* 1936, 188.

[70] Gruia 2023a, 181.

quarter of the eighteenth century, the area had become a second center in fact, with a small square containing the statue of *Maria Immaculata* surrounded by Jesuit religious and academic buildings. The other two locations of the pharmacy are both in the main square of Cluj, thus providing maximum visibility and a commercial advantage. On preserved commercial materials, the address was general, with just the name of the city recorded in the nineteenth century. This shows that there were still few pharmacies (in Cluj, the third pharmacy opened in 1814 and six more until the end of the century),[71] that everyone knew their location, and the old ones had possibly become landmarks in themselves. It also means that their products reached well beyond the city itself, and this should be further researched and corroborated with other historical sources. At the beginning of the twentieth century, the pieces of information printed on labels and commercials mentioned the name of the square as well, and by the Inter-War period, it was the square, the number, and the telephone number. The first half of the century marks a time of proliferation of pharmacies (45 of them are mentioned in the nationalization decree of 1949),[72] as well as an increase in the number of new inhabitants, so more detailed information was necessary for efficient identification and promotion.

The identity and **continuity** of the Unicorn pharmacy for almost three centuries is thus not straightforward, as it changed location three times, changed type of ownership four times (religious – private – public – private), changed private owners countless times, and eventually even the name. Other researchers stress the discontinuities. Mária Péter, for example, deals separately with the Jesuit Unicorn Pharmacy, founded in 1732, and the private Unicorn Pharmacy, founded in 1775.[73] The pharmaceutical yearbook printed in 1900 also mentioned 1775 as the founding year of the Unicorn.[74] Robert Offner believes this year to be the correct one and ends the story of the Streicher Pharmacy with the demolition of the buildings around St. Michael's church, but mentions that further research was needed in the reconstruction of its history.[75] The present article fills some of the missing pieces of the puzzle and brings to light more information in support of the Unicorn's continuity. It is true that Tobias Mauksch bought the license of the Unicorn and moved it, but he kept the name and the artifacts. Similarly, there is evidence of material culture continuity after the demolition of the second location, as the overlapping labels in Fig. 9 demonstrate. The most drastic change was, in my opinion, the 1949 nationalization. On that occasion, the pharmacy lost its traditional name, its owner, and even changed type of ownership, and at least some of the objects (the almost 170 jars now in the Pharmacy Museum), preserving only the location.

Local and regional history

The changes the Unicorn Pharmacy experienced reflect the evolution of Cluj and even Transylvania. The most direct connection is with **town planning**, as the pharmacy's address records changes in the name of the central square of Cluj, from *Mátyás király-tér*

[71] Gruia 2023a, 178–179.
[72] Gruia 2023a, 192–193.
[73] Péter 2013, 54.
[74] Offner 2023, 248, footnote 77.
[75] Offner 2023, 249.

from the end of the nineteenth century until the First World War, to *Piața Unirii* in 1918–1940, likely *Mátyás király* again in 1940–1944, *Piața Libertății* in 1945–1999, and since 1999 again *Piața Unirii*.[76] Place names in Cluj were, as elsewhere, strong political statements, so the name of the main square followed mainly changes in the administration. Printed forms with the address of the Unicorn also reflect the change in numbering the houses around the square, as for a while in the first part of the twentieth century, it was at no. 9 instead of 10. Even the four-digit telephone number of the pharmacy, recorded in 1933, is revealing as to the inclusion of pharmacies among the first places to have a telephone in Cluj. The Dr. Hintz pharmacy also had one before nationalization, and Mrs. Edith Hintz, still a child at the time, recalls that the phone was something special, and they still did not have one installed upstairs, in the living quarters of the Hintz family.[77]

The list of owners and active pharmacists can also be analyzed from an **ethnic** perspective, though more research is needed in each individual case. But overall, the pharmacists were of German or Saxon origin until the second quarter of the nineteenth century, of Hungarian origin the rest of the century, and until nationalization, likely Jewish during the Inter-War period and Romanian possibly after 1949, but clearly more detailed research is needed. The Jesuit pharmacists bear Austrian (German) and likely Polish names; one knows that Mauksch and the Streichers were Saxons, the first from present-day Slovakia and the others from Sibiu, while names such as Kohn, Orion, and Sperlagh might have been of Jewish origin. This sketchy overview matches the evolution of the different ethnic groups in Cluj, with Saxons forming the majority during the Middle Ages and regaining in importance during the eighteenth century, with the Habsburg rule, the Hungarians growing in numbers and equaling the Saxons in the second part of the fifteenth century, Cluj becoming the most important Hungarian city of Transylvania up to 1918, and with Jews active in the field of pharmacy especially during the Inter-War period.[78] As for the **languages** associated with the Unicorn pharmacy, there are very few available examples, with Latin as the international language of pharmacy, especially for ingredients and medicine names, German used in the middle of the nineteenth century on the label in Fig. 9 for example, but certainly spoken by Tobias Mauksch and the Streichers, while most of the preserved artifacts related to the Unicorn have texts in Hungarian. Some combinations also occur, with German handwritten inscriptions on Hungarian printed ephemera, confirming that pharmacists did speak several languages. In 1807, physician Nyulas, inspecting the pharmacies of Transylvania, also recorded the languages that the 35 pharmacists from Transylvania spoke: all spoke German, 30 also Romanian, 26 also Latin, some even other languages, and it is self-understood that all of them were fluent in Hungarian.[79] It is difficult to distinguish between their native tongues and their working language or languages, but Latin was the international language of the trade, and even if not fluent in reading it, pharmacists certainly knew the Latin technical terms and names they employed daily, while the other working languages were certainly useful for business.

[76] The change of place names in Cluj is yet to be published in full detail.

[77] Personal communication, 2023.

[78] This is true for all pharmacists active in Cluj, as a general trend. Gruia 2023a, 188.

[79] Péter 2022, 85. The numbers should be checked in the original source, the author mentions 42 pharmacies, 5 certified pharmacists and 54 assistants and other employees recorded by Nyulas in his summary of visitations entitled *De novis Apothecarum medendis*.

As for **gender**, all recorded pharmacists working for the Unicorn were male until the mid-twentieth century, after which no data has been available for the present study. As an exception, two women are mentioned as owners or co-owners, both widows of pharmacists (József Khuda and Gyula Orient).

Marketing and competition

Pharmacy is and was a profitable line of business, which has generated a lot of competition and conflicts. Existing studies focusing on Western Europe have identified that pharmacists were among the first to develop retail selling strategies and marketing methods.[80] This is also visible in the case of the Unicorn, but there are also interesting, non-competitive situations. The first example is the conflict between Tobias Mauksch and the Jesuits. In the eighteenth century, Jesuit pharmacies and those run by other religious orders in the Habsburg Empire raised strong urban opposition, and the state was forced to impose clear regulations.[81] Before obtaining his imperial privilege in 1760, Tobias Mauksch complained that the Jesuits were dispensing free or cheap medicines to the poor, thus affecting his private business. He was partially appeased when the Jesuits compensated him for the official permission to expand their services to the general populace by opening their pharmacy to the street. But the true end of the conflict came in 1775 when Tobias bought the entire Jesuit apothecary shop. The subsequent episode is atypical. For a while, Tobias Mauksch owned two pharmacies in close proximity, but then changed his mind and gave (gifted?) the Unicorn to his son-in-law. And ten years later, he bought another apothecary shop for his second son, but in another city (the Golden Stag in Târgu Mureș mentioned above).[82] It is possible that no competition existed between Mauksch and his relative, as these were the only pharmacies in town and likely both had enough clients to prosper. Demand had grown, but the exclusive privilege prevented the opening of new apothecary shops until 1814, followed by six more pharmacies opening until the end of the nineteenth century. Mauksch might have foreseen this development and thus decided to avoid competition between his two sons, if they were to own neighboring pharmacies in the same city.

I have discussed elsewhere the main marketing strategies of the early modern pharmacies of Cluj, such as the central location, the use of memorable names and visible signs, the decoration of the *officinae*, the mention of owner, name and address on printed labels and commercials, with increasingly detailed information regarding the address and eventually the telephone number, knowledge of the best and cheapest sources of primary materials, diligent accounting habits, selling para-pharmaceutical goods, behavior control, even sending gifts to local doctors.[83] Some of these strategies can also be noted in the case of the Unicorn, such as the prime locations, the memorable name, the use of visible front signs, the mentioned owner and address, even the behavior of the owner (Michael Streicher was reportedly talkative, modest, trying to serve the public as best as possible, and with good assistants). Though not visually recorded, the interior was also noted by the

[80] Wallis 2008.
[81] Gruia 2018, 514.
[82] Gruia 2023a, 243.
[83] Gruia 2018.

sources. The Jesuit pharmacy was said to be lavishly decorated, the *officina* of the Streichers included antiques and spectacular rows of tin jars, while the front room of the Unicorn in its final location was an ample vaulted space in an urban palace. Some of the commercials mention the doctorates of the owners (Dr. Kohn, Dr. Orion), trying to impress buyers with their erudition, while others attempt to gain public trust through mentions of the shop's antiquity (though sometimes fictitiously ancient).

Conclusions

The Unicorn was the second pharmacy of Cluj, but definitely the one with the most circuitous existence. Both its longevity and numerous transformations seem to have been due to chance and outer influences. In fact, one can argue that it miraculously survived a long line of tragedies and random decisions: the banishing and expulsion of the Jesuit order; the move of artifacts and change of ownership type; the fact that Tobias Mauksch chose to give it to one of his sons-in-law and not to one of his own sons; the demolition of the building housing the second Unicorn pharmacy; and eventually the 1949 nationalization and 1991 reprivatization. By comparison, the history of the Mauksch-Hintz pharmacy was much more linear, with one privatization and one nationalization, a single move, and a very long line of owners from the same family (Mauksch and his heirs, the Hintz). But the more convoluted history of the Unicorn increases its historical value. I hope I have opened for discussion new pieces of information relevant for the town planning of Cluj (including the hypothetical identification of the original location, by the plague column that was also meant to include unicorn statues), the aspect, marketing and retail strategies of pharmacies and shops in general, the ethnicity and gender of pharmacists and shop owners, even the languages spoken in the city and the introduction of the telephone service. The case of the Unicorn can certainly be refined and further detailed by subsequent research into various sources (especially Jesuit ones, commercial and financial documents, and twenty-first-century company details), but is already rich enough to support the more exact dating of existing pharmaceutical goods, comparisons in pharmacy history and urban studies and debates on the nature and identity of pharmacies that have survived decades and centuries of significant and often rapid changes.

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Fig. 1. Detail of an 1859 photography of the Plague Column in Cluj and the former Jesuit Academic College that housed the Unicorn Pharmacy ("Statuia Fecioarei Maria din Cluj-Napoca" / Wikipedia).



Fig. 2. The Jesuit College (*Academia Claudiopolitana*), subsequently seat of the *Gubernium*, while being demolished in 1893 (Csucsuja 2012, 75).



Fig. 3. Veneer medicine box with circular paper label with printed information (*Streicher Mihály Gyógyszertárából az unikornishoz Kolószvártt*) and handwritten inscription (*Pulvis Serpilli*) (image from the MNIT Archive).



Fig. 4. Wooden medicine box with circular paper label with printed information (*özvegy Khudy Józsefnö Gyógyszertára az egyszarvúhoz, Kolosvárott*) and handwritten inscription (*Schwefel eisen*) (image from the MNIT Archive).



Fig. 5. 1859-photograph of the central square in Cluj, with the Unicorn pharmacy on the left (shutters with busts) and the Mauksch-Hintz pharmacy in the center, in the background (Gruia 2023a, 197, fig. 4).



Fig. 6. 1863–1869 photograph of the central square in Cluj, with the Unicorn Pharmacy on the left (shutters with busts) and the Mauksch-Hintz Pharmacy in the center, in the background (Gruia 2023a, 198, fig. 6).



Fig. 7. Paper package with printed information (*Engel József GYÓGYSZERTÁRA az Egyszarvúhoz KOLOZSVÁROTT*), printed depictions (a unicorn, a child holding a bunch of plants and a caduceus), and a handwritten inscription (illegible, in the ledger *Sem Petroselini*) (image from the MNIT Archive).



Fig. 8. Wooden pharmaceutical jar with paper label inside the lid, with the printed form of the Unicorn pharmacy administered by tenant János Biró: *Biró János berlö Gyógyszertára, az Egyszarvúhoz Kolosvárott* (image from the MNIT Archive).



Fig. 9. Inner side of a wooden jar cover with overlapping paper labels, the uppermost with the following printed text, in Hungarian: *GYÓGYSZERTÁR „AZ EGYSZARVUHOZ" KOLOZSVÁR, MÁTYAS KIRÁLY TÉR* (image from the MNIT Archive).



Fig. 10. Early twentieth-century photograph with the Jósika palace on the right and half of the pharmacy located on the ground floor, marked by two written signs (*GYÓGYSZERTÁR*) and a depiction of a unicorn head (Hăineală 2023).

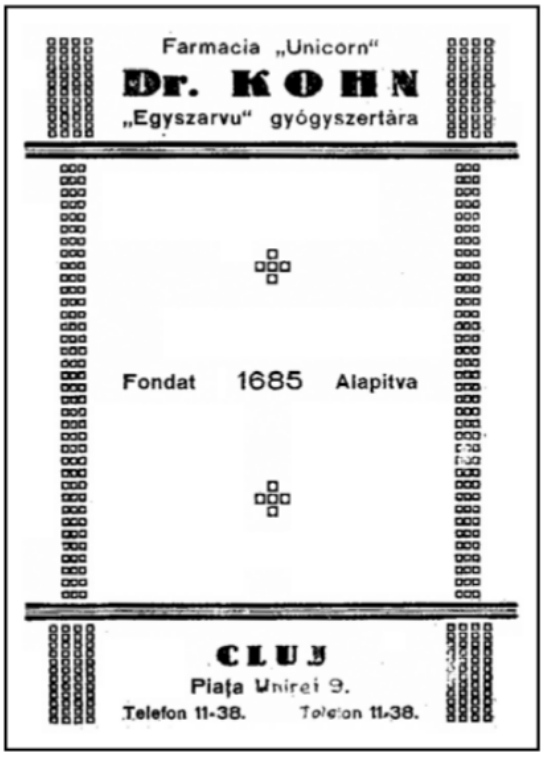


Fig. 11. 1933-printed commercial of the Unicorn pharmacy, with bilingual data and erroneous foundation year (Péter 2013, 54, fig. 5).



Fig. 12. 1940s-photograph of the Jósika palace with the pharmacy marked by a large *GYÓGYSZERTÁR* sign ("Cluj farmacie gyogyszertar Palatul Josika aniversare" / Okazii).

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THE SOLDIER'S FAMILY IN THE HABSBURG ARMY FROM THE LATE EIGHTEENTH TO THE MID-NINETEENTH CENTURIES

EUGENIA BÎRLEA*

Abstract: Like all modern armies, marriage in the Habsburg military was drastically limited, with officers and especially soldiers facing many difficulties in starting a family. Throughout the period under investigation, the army and the state increasingly interfered in the soldiers' lives, including their private lives. Not being able to meet the necessary conditions for marriage, most soldiers had to wait for favorable moments to legalize cohabiting relationships or even to live for many years in stable relationships, but without formalizing them. The military environment was, however, conducive to adventurers who could take advantage of a regiment change or the beginning of a war to suddenly break off these relationships and leave behind children to swell the ranks of beggars. Social assistance for soldiers' families became more and more important as the number of regiments increased, so that a system was gradually organized and perfected, even if it could not cover all the needs of these families.

Keywords: Habsburg army, soldier, soldier's family, concubinage

Rezumat: Ca în toate armatele moderne, căsătoria în armata habsburgică era drastic limitată, ofițerii și mai ales soldații întâmpinând multe dificultăți în a-și întemeia o familie. Pe parcursul perioadei investigate, armata și statul au intervenit din ce în ce mai mult în viața soldaților, inclusiv în viața lor privată. Neîndeplinind condițiile necesare pentru căsătorie, majoritatea soldaților trebuiau să aștepte momente favorabile pentru a-și legaliza relațiile de concubinaj sau chiar să trăiască mulți ani în relații stabile, fără însă a le oficializa. Mediul militar era însă propice aventurierilor care puteau profita de o schimbare de regiment sau de începutul unui război pentru a rupe brusc aceste relații și a lăsa în urmă copii care să umfle rândurile cerșetorilor. Asistența socială pentru familiile soldaților a devenit din ce în ce mai importantă pe măsură ce numărul regimentelor a crescut, astfel încât s-a organizat și s-a perfecționat treptat un sistem, chiar dacă acesta nu putea acoperi toate nevoile acestor familii.

Cuvinte cheie: armata habsburgică, soldat, familia soldatului, concubinaj

In this article, we aim to outline the issue of soldiers' families in the Habsburg army from the reign of Maria Theresa to the period following the Napoleonic Wars – a difficult topic to tackle and, until recently, almost nonexistent in the historiography of the Habsburg (*Kaiserlich-Königlich*) army, which has been dominated by descriptions of wars. A new, socially oriented approach to military history, concerned with the human groups involved and their lives, began to make its way into research first through certain historians in the Anglo-Saxon world after World War II. In the last years of the twentieth century, the new

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German military historiography, centered around the journal *Militär und Gesellschaft in der Frühen Neuzeit*, published by the University of Potsdam, experienced great development. Their work materialized in studies and books about the armies of Saxony, Prussia, and smaller German states, about recruitment and desertion, and about the families of Prussian soldiers. Noteworthy examples include Stefan Kroll's books on the Saxon army,[1] Beate Engelen's book on the family of the Prussian soldier,[2] and the volumes edited by Ulrich Brokling and Michael Sikora on the issue of desertion.[3]

Austrian historiography, with few exceptions, has not opened itself to this research direction[4]. However, studies on the social assistance provided to soldiers' families, the education of children from this environment, and issues such as prostitution and alcoholism in the military milieu are highly valuable for future military history research. Christoph Tepperberg, former director of the Vienna War Archive, published a study on the legal aspects of desertion in the early nineteenth century[5] and another on the diet of soldiers,[6] though the latter refers to the final decades of the multinational army. The book by American historian of Hungarian origin István Deák, dedicated to the officers of the late Habsburg army,[7] serves as a model of research from the perspective of the new military history. Everything related to the training of officers, their careers, families, income, and social and family life forms distinct chapters in his work. He also devoted several pages to the relationship between officers and the soldiers – a topic that researchers have often tended, and still tend, to ignore.

We can consider the work of Austrian historian Michael Hochedlinger, *Thron & Gewehr. Das Problem der Heeresergänzung und die "Militarisierung" der Habsburgermonarchie im Zeitalter des Aufgeklärten Absolutismus (1740–1790)*, published in 2021, to lay the groundwork for a new approach to military history. Its significance lies in the fact that it offers a very broad framework for understanding the fundamental problems of the army during a period of profound transformation, without neglecting the majority of its members— the soldiers. Navigating the vast archives and growing number of studies, the book provides an indispensable basis for the vast and complex issue of this institution.

By integrating the findings of nineteenth- and twentieth-century historical research, this brief contribution would not have been possible without the work of the new German military historiography.

Regarding the sources used, we focused on the most accessible ones. Very important are the collections of laws edited by military jurists of the relevant period, as well as the military regulations. Additionally, medical and sanitary policing books by Anton Johann Beinl[8] and Johann Nepomuk Isfordink[9] are the most important sources regarding the soldier's condition from the perspective of military hierarchy and bureaucracy. However,

[1] Kroll 2006.
[2] Engelen 2005.
[3] Sikora 1996; Bröckling, Sikora 1998.
[4] Hochedlinger 2021, 16.
[5] Tepperberg 1993.
[6] Tepperberg 1986.
[7] Deák 2009.
[8] Beinl 1804.
[9] Isfordink 1827.

the most vivid details come from the few soldiers – including one woman – who told the story of their lives. Even though they were assisted by editors in publishing their memoirs, this does not diminish the documentary value of these sources. It is to be hoped that research into the Austrian war archives (the "great sleeping giant," as Michael Hochedlinger called it)[10] will bring to light more memoirs and notes from Habsburg soldiers, so that the multitude of anonymous individuals who fought in the wars may finally have their own voice.

The Habsburg authorities and soldiers' families

Restricting the number of marriages in disadvantaged categories of the population, such as students, apprentices, servants and soldiers, was justified by the fact that being poverty-stricken categories risked multiplying the number of those lacking material means. The restrictions imposed on the military were therefore not unique.[11] As early as the end of the seventeenth century, Austrian soldiers were forbidden to marry in order not to jeopardize the mobility of the army, to avoid increasing the number of those who followed the army, to avoid possible pension claims and to avoid increasing the number of the poor. The invalids were also forbidden to marry, because in the time they had left they served God alone, but above all so that the state would not be confronted with a growing number of poor families. This permission was only granted to those who, by marrying, would improve their material situation, which was very rarely the case.[12]

In 1750, a security deposit was introduced for officers who wished to marry[13] later orders specifying the conditions to be fulfilled by prospective brides, the amount of money to be deposited by officers as a guarantee of the family's material stability[14] and the number of officers and soldiers to be married. As historian István Deák has shown in Chapter VII of his book, Austrian officers found it difficult to marry, and the restrictions remained in place until the collapse of the Dual Monarchy.[15]

Aiming to increase the population, in 1766 the Austrian authorities lifted certain restrictions and allowed more soldiers to marry.[16] However, by the following decade, the army leadership could no longer cope with the large number of children resulting from these marriages, so the restrictions were reinstated.[17] The number of wives of non-commissioned officers and soldiers was set at a maximum of 15 per company and, according to the Prague Ordinance of 2 August 1780, had to be kept as close as possible to this limit. These 15 wives could follow the regiment under all circumstances, except during periods of war, when only three were allowed to travel with the troops.[18]

[10] Hochedlinger 2005, 165.
[11] Westphal, Schmidt-Voges, Baumann 2011, 42–43.
[12] Wunder 1984, 356.
[13] Hochedlinger 2021, 333.
[14] Heinrich 1787, 226–228.
[15] Deak 2009, 170.
[16] Hochedlinger 2021, 334.
[17] Hochedlinger 2021, 526.
[18] Heinrich 1787, 231–233.

Soldiers who were not allowed to live with their families in the regiment were sent on leave,[19] where they could stay with their families and practice their former occupation. This was the second type of marriage, the first category included those entitled to live together at the army's expense. If one of the 15 women in the regiment was found guilty of something and forfeited her rights, one of the second category took her place.[20]

Further clarification is given in the regulation issued on 10 August 1812 by the Aulic Council of War, generally referred to as the *Heirats-Normale*. Marriage without permission was annulled. The details about the superiors who were authorized to grant permission to marry take up many pages. The proportion of married soldiers in a regiment was also determined: while 17% of officers were allowed to marry, the quota for non-commissioned officers and privates was only 4–10%. Before permission to marry could be granted, the concerned Austrian officer had to check that the bride was of impeccable character so that the reputation of the soldiers would not suffer from an inappropriate marriage. The 1812 regulation remained in force until the twentieth century, only the amount of additional income required was adjusted several times by additional regulations.[21]

The military doctor Anton Beinl von Bienenburg, who in 1804 published a book on medicine and sanitary police, *Versuch einer militärischen Staatsarzneikunde,* devoted most of his pages to the question of soldiers' marriage and made it clear from the outset that there were two conflicting views on the subject. Those who support it say that a married soldier is braver and more responsible, and those who deny it, on the contrary, that the soldier cannot support his family on his small pay, that he will be constantly harassed by the care for his family, lacking courage in combat, trying to pass himself off as sick or avoid being used in dangerous missions. Of those who failed to avoid war, some fell ill and even died when sent into battle.[22]

In general, soldiers were not a preferred category, precisely because they had no material advantages. However, women were pushed towards these ties by the need to marry even men below their level, so as not to remain old maids or because they came from even poorer families, and marrying a soldier offered certain advantages.[23] But the military authorities regarded women in the regiment as a calamity, believing that some of the soldiers' wives were indulging in debauchery and corrupting the unmarried, i.e., the best fighters.[24] However, the doctor, who was also a professor at the faculty of military medicine set up by Joseph II, advocates giving more soldiers the right to marry, emphasizing the advantages that would result from this policy. Although 20,000 of the 50,000 marriages of soldiers remain childless, around 15,000 children are born each year, who are endowed with courage and warrior spirit. These children, i.e., boys, can increase the number of soldiers, and the peasant and citizen classes can be exempted from military service, except in cases of great necessity. This would obviate the need for costly conscription abroad, and desertions would be reduced, for a married soldier is bound to his family. Last but not

[19] From 1766 onwards, the leave system became permanent, and soldiers could stay on leave for up to ten months. See Hochedlinger 2021, 405.

[20] Beinl 1804, 401.

[21] Dumont 2010, 35–36.

[22] Beinl 1804, 389–399.

[23] Engelen 2000, 262–264.

[24] Beinl 1804, 399–400.

least, marriage would be a means of avoiding debauchery.[25] In the last pages of his book, he makes some proposals for raising revenue to support the families of married soldiers.[26] Of course, such proposals had no application in Europe at the time of the Napoleonic Wars.

Military regulations, medical and sanitary police papers refer rather to the negative role of women. Even when it comes to the legitimate wives of soldiers, the clichés have remained in use for a long time, with the upper classes considering that it could not be a moral woman who married a soldier. It wasn't noble and delicate women who married soldiers. Rather, they were vagabond prostitutes, who feared only to live an even poorer life or die as old maids. They clung to soldiers and were unfit to tame their morals and character.[27]

Beate Engelen, in her voluminous book on Prussian women in the Prussian army, also revealed the persistence of this negative image of women who accompanied the armies, generally considered as prostitutes. This prejudice also contaminated the studies of historians, who for a long time completely ignored the presence and activities of these women in the army, but after the middle of the twentieth century began to mention their presence and negative role.[28] However, the political and military authorities had to bear in mind that the refusal to grant them permission to marry was one of the main reasons for desertion, so that there were periods when restrictions were less severe or absent, as was the case for a short time in the electorate of Saxony, precisely in order to combat the tendency to desert and support the increase in the population.[29]

Wives who were admitted to the regiment to live with their soldier husbands were given clear tasks. They were responsible for cleaning, cooking, washing clothes, and were also allowed to trade in food, drink, and other goods that the soldiers needed, i.e., they were vivandières[30] (*Marketenderin* in German; sutler in English). The role of merchant could be performed by semi-invalid soldiers. Vivandières are mentioned in passing in military regulations and in works on military medicine and hygiene, but in literature, drama, and opera from the eighteenth to twentieth centuries they are fairly common characters, and new novels, short stories, song cycles, and operas with these characters at their center continue to appear. *The Daughter of the Regiment* (1840), the comic opera by G. Donizetti, is just one example from the musical sphere, set during the Napoleonic Wars.

The majority of the barmaids were wives of soldiers or non-commissioned officers. They generally did not engage in prostitution, although they did not have a good reputation among the upper classes of society. According to the Prussian vivandière, who fought alongside her husband against Napoleon, not even the craftsmen in her family were happy to know that she was married to a non-commissioned officer.[31]

Vivandières, especially on the march and in the camps, had a monopoly on the sale of spirits, tobacco, and coffee. If these items were in short supply, then, to the displeasure

[25] Beinl 1804, 403–404.

[26] Beinl 1804, 405–411.

[27] Kroll 2006, 221.

[28] Engelen 2005, 14–15.

[29] Kroll 2006, 223.

[30] In Romanian, the term is borrowed from French. We assume such figures existed in the Romanian army around the mid-nineteenth century, as one of V. Alecsandri's plays from 1858 bears the title "The Vivandière."

[31] Erich 1863, 5.

of the soldiers, the prices were increased, although they were obliged to sell their goods at a "reasonable" price. The two leading military doctors, Anton Beinl[32] and Johann N. Isfordink,[33] particularly emphasize the need for frequent supervision and inspection to prevent speculation and to ensure that food and drink were of good quality and not counterfeit. Depending on the circumstances of each army and unit, some women had only cleaning and cooking duties, others were also in charge of marketing food and other necessities. In Napoleon's army they were not lacking either, and there is no shortage of accounts of women serving as vivandières, bringing drinks to soldiers in the front line and transporting the wounded to first-aid posts. The deaths of such brave women were mourned as much as those of their male comrades.[34]

If until now very few notes have been found left by soldiers, this being the prerogative of officers, even fewer biographies of this category of women are known. Unfortunately, the activity of women in the Austrian army is a nonexistent topic, given that only through M. Hochedlinger's research have the foundations been laid for a social history of the army, in which the soldier's family and everyday life are taken into account. In outlining female characters, we rely on biographies of figures from other contemporary armies.

Those of Johann Steininger, a famous deserter who allowed himself to be conscripted into many European armies, provide us with information about what his mother, a soldier's wife in a Piedmontese regiment, was doing. Her job was to clean (cooking is not mentioned) for her husband's entire company, which was well off. This woman had a series of adventures before she had a stable life in the Piedmontese army. Her husband had already been a soldier in the army of the Duke of Würtenberg for eight to ten years, but when he decided to sell some of his soldiers,[35] he and two others deserted and fled to Italy, together with his future wife, the mother of the narrator, and the wives of the other fugitives.[36]

The life of a vivandière in the Prussian army

A lengthy autobiography of a Prussian army sutler, Sophie Erich, appeared in the second half of the nineteenth century, edited by a jurist and politician, Alfred Hüffer. He knew her when she was old and poor, and hearing of her extraordinarily interesting life as a companion to the Prussian army in the battles against Napoleon, he decided to help her by publishing her memoirs, which she recounted at length. Regretting that he did not have the shorthand to record the woman's words more accurately, he says he did his best to reproduce the content as faithfully as possible.[37] This gives us a glimpse into the world of soldiers, their families, and how they relate to war.[38]

Sophie Erich was born in 1782 in a village near Halle as the daughter of a shoemaker. The family then moved to Magdeburg and, when she was 17, she married, but was soon

[32] Beinl 1804, 278–280.

[33] Isfordink, I, 407–416.

[34] Mayer 2008, 54.

[35] In fact, it is the practice of hiring out the soldiers. See Wilson 1996.

[36] Diezel 1841, 17–18.

[37] Erich 1863, V–VI.

[38] Such notes were also published by former English soldiers who fought in the wars that followed the French Revolution. See Hurl-Eamon, MacKay 2020, *passim*. The authors of the notes mention the women and children of the soldiers who accompanied them on campaigns.

widowed. The family found her another potential husband, but he was totally undesirable, so she ran away from home and took a job at an inn in Magdeburg. There she worked together with Jacob Holle, a native of Grönigen,[39] a non-commissioned officer in an infantry regiment of the King of Prussia. He was on indefinite leave, to be called to the regiment for drill or in case of war. The two young people found themselves in similar situations, as he was also pushed by his parents into an unwanted marriage, so they quickly became close. But her family was opposed, especially her mother, who did not want to hear of a military son-in-law, even though non-commissioned officers had a much higher status than soldiers.[40]

The opportunity to convince his parents came soon, on the eve of the Battle of Jena (14 October 1806), when the non-commissioned officer was called to the regiment. Sophie had to insist that her mother accept him as her son-in-law, so, on the eve of the soldier's departure, the marriage was solemnized, followed by a meal with friends at the inn where the bride and groom had been working. Very interestingly, 25 other couples were married, five at a time, and the ceremony was conducted with some haste and in the presence of a military auditor.[41]

Shortly after she left, her husband wrote to her that there was a post for a vivandière and called her to him, and she was happy to listen to him and went, along with two other soldiers' wives in the same situation (towards the end of her notes,[42] she writes that unmarried vivandières were not accepted). She is immediately installed as a vivandière in a small ceremony. She also names the unit to which they belonged and the fact that each company had three vivandières.[43] As in the Austrian army, only three women were allowed to join the company because it was wartime.

They had scarcely been in Jena two days when the fatal day of the great battle came, and it marked them deeply. Their company had been under heavy fire for three hours. She was seized with horror at the sight of soldiers and officers falling left and right and was ready to flee, but her husband admonished her that a soldier's wife is not allowed to be a coward. Under a rain of bullets that intensified and wounded their ranks, she noticed with horror that her husband had been hit by a bullet. She tore off her apron (the only uniform item she mentions) and dressed his wound. But the situation of the unit was becoming more and more critical, so her husband decided that he would hide among the corpses until the battle was over, and she would run to his parents in Grönningen and wait for him. They met a few days later, they looked for their unit, and he was sent to the lazaretto to have his leg wound treated.[44]

The city of Magdeburg had to surrender to the French and the garrison soldiers were taken prisoners. They thought that the married men would be spared, but it was not so: because there were so many of them, they were taken prisoners with their wives. They tried to escape with others, but they were caught and were ready to be executed. She knelt in front of the French soldiers, praying for her husband's life and telling them she wanted to

[39] Both towns are located in the present-day state of Sachsen-Anhalt, about 60 km apart.
[40] Erich 1863, 1–5.
[41] Erich 1863, 5–6.
[42] Erich 1863, 104.
[43] Erich 1863, 6.
[44] Erich 1863, 7–9.

die in his place. They did not shoot him, but they beat him so severely that her heart ached for him. However, they managed to escape soon afterwards, using a lot of courage and resourcefulness.[45] Thus ends the first episode of her life as a soldier's wife and a vivandière.

There followed a challenging period for their family and their city, as the Peace of Tilsit, following the defeat at Jena saw a large part of Prussia, including the city of Magdeburg, assigned to the Kingdom of Westphalia, created by Napoleon and placed under the rule of Jerome, his younger brother. Taxes and levies were greatly increased, the population was having a hard time, and not long after soldiers were called up to the unit that now had to submit to the French King of Westphalia. The non-commissioned officer disagreed and, using a convenient opportunity, fled to Prussia with other non-commissioned officers, enlisting in a Prussian regiment. She was also employed as a vivandière and washerwoman, from which we see that these two duties could be performed together as well as separately.[46] She said that she had to work all week doing the laundry, as the soldiers were controlled. On parade Sundays, every soldier had to roll up his tunic sleeve and show his superiors a clean shirt.[47]

Money was tight in the Berlin garrison where they lived, so, against the advice of her husband and the major, she left without her husband's knowledge to Magdeburg[48] where she had some savings. After many adventures, being pursued and even arrested, she managed to escape, as always, with the help of the townspeople and returned safely to Berlin, to the amazement of those who had told her not to leave.[49]

There followed a period of peace during which they lived in Berlin for a couple of years, which she considered a monotonous period. The only notable event, apart from the death of Queen Louise, was the crisis they went through when her husband, who had grown accustomed to spending his time in taverns, then found himself a mistress. Having badly beaten his wife, his actions were investigated by the military auditor. He tried to reconcile them, although she was determined to separate from her husband. She changed her mind only after he asked her to forgive him and promised to behave, as a husband should, a promise he kept.[50]

Their unit changed their station several times, but was not engaged in combat again until 1813. She made good use of her time and talents, saved money, and became a wealthy woman. Everyone in the regiment thought so and even the officers asked to borrow money from her, but she also got into trouble.[51]

They were lucky to escape the Russian campaign, in which the Prussian king was Napoleon's ally. The regiment spent the winter in Silesia and, in the spring of 1813, set out for Saxony, as the battle of Leipzig loomed. During these journeys an interesting incident occurred. A group of soldiers was lodged overnight with a peasant who had fed them poorly; during the night one of the soldiers stole some of the peasant's bacon and shared it with his comrades the next day after his departure. The wife of another non-commissioned

[45] Erich 1863, 10–13.
[46] Erich 1863, 14–16.
[47] Erich 1863, 22.
[48] The distance Berlin-Magdeburg is about 150 km.
[49] Erich 1863, 16–22.
[50] Erich 1863, 23–27.
[51] Erich 1863, 28 sqq.

officer, a woman they all detested, betrayed them and the incident was investigated by the superiors. Our vivandière knew who had stolen, but could not betray her comrades; her husband, the non-commissioned officer, knew nothing about the theft, but was punished the worst. She ended up in custody and was forced to witness the beating of her comrades and her husband. The soldiers rallied against her, vowing to kill her husband. They did not have to, because at the first collision with the enemy, a bullet hit the traitor. Everyone saw this as divine punishment.[52]

Their regiment was part of the army that attacked the French at Lützen on 2 May 1813, a preliminary to the Battle of Leipzig. Her husband showed courage of a very special kind that day; he was tireless in the hail of bullets, encouraging the soldiers by word and example, and she always stood by his side, though the bullets sometimes fell around them as if someone had poured a pot of peas over them. She then recounts how she took the rifle from a fallen soldier and began to fight alongside her husband.[53]

During the weeks-long summer truce, they had a chance to rest, to get to know their Russian allies, who were despised for stealing and being infested with lice. Still, some among them had little icons and prayed, even if they were laughed at. The habit of prayer was introduced among the Prussians. Prayer was not without consequences, she says, because after the resumption of the war, they won several victories against the French, so they understood what prayer was good for.[54]

During the Battle of Leipzig (16–19 October 1813), the number of soldiers killed was huge,[55] but the most impressive thing she recounts is that while sleeping under the open sky and being cold, they built a fire and a wall of corpses to protect themselves from the wind. In the battle, she lost her husband, whom she thought was dead, and, in the morning, she began to search for him feverishly in the field covered with corpses. He turned up again as the unit headed for Halle.[56]

Further incidents occurred in pursuit of the French through German space, then into France. At one time, she got lost from her unit, made the acquaintance of Field Marshal Blücher;[57] another time, she fought again with gun in hand, and the captain under whose command they were was of the opinion that she deserved the Iron Cross.[58] Telling is also the episode in which she recounts how she made good money with her provisions of drink and food and, caught up in the fever of winning, forgot the soldiers whom she was obliged to feed and give brandy. Her husband scolded her and, to make amends, she went to their Russian allies, their shopkeepers, to buy brandy.[59] She even bought brandy from the French camp, where she went at night, without her husband's knowledge and against the major's orders.[60]

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[52] Erich 1863, 39–44.
[53] Erich 1863, 44–45.
[54] Erich 1863, 56–58.
[55] Nearly 100,000 dead and wounded on both sides.
[56] Erich 1863, 63.
[57] Erich 1863, 83.
[58] Erich 1863, 82.
[59] Erich 1863, 70–71.
[60] Erich 1863, 75–76.

The pursuit of the French was a difficult march as it was winter, new bloody clashes were taking place, one of which, particularly dramatic, remained vivid in her memory, without being able to date it. At Montmartre, on the outskirts of the French capital, the fighting was fierce, and the dead and wounded were piled in heaps. There were apocalyptic scenes: following the explosion of Prussian gunpowder carts, a large number of people were killed and maimed. In the evening, a few soldiers were sent to bury the dead. Because of the haste with which this burial had to take place during the battle, they could not stop to see if they were all dead, so, witnessing this tragic burial, she notes that some still showed signs of life, but the body was thrown into the mass grave, which was then filled in.[61]

After Napoleon's defeat, they stayed for a while in Luxenbourg, where they had good conditions. The news that Napoleon had escaped from the island of Elba and had returned came like a thunderbolt to their camp. She had just begun to wash a large load of laundry when a non-commissioned officer informed her that they were leaving that very afternoon. She wanted at least the captain's laundry to dry, so she put a lot of wood on the fire and spread the clothes around. Then she went to give the soldiers the shirts, which they wrapped wet, but when she returned the captain's clothes had burned to ashes, being too close to the fire. He was much more indulgent than her husband, who reproached her severely.[62]

At the Battle of Waterloo, she had the opportunity to closely examine the carriage from which Napoleon fled, leaving his cloak behind. The soldiers shared it among themselves, her husband also taking a piece.[63] She mentions the suspicion with which she was initially treated in the town of Mezières in her capacity as a vivandière,[64] the moving of the unit to Sedan and her confinement in a barracks.[65]

Here, at Sedan, her brave husband died of a wound he had received at a party with comrades, one of whom was baptizing his child. Intervening to calm down two brawling non-commissioned officers, he was stabbed and died a few hours later.[66] She remarried after leaving the army with a former comrade of her husband's, also a non-commissioned officer, who retired from the army and became a gendarme. They had four children, but, after 10 years, he died. At the age of 81, when the lawyer who edited her memoirs met her, she was poor and living with her daughter, also a widow, and her two children.[67]

Children of soldiers

By the mid-eighteenth century, the authorities were increasingly confronted with social problems, with disabled soldiers and their families all begging. In Prussia, a garrison school was opened in 1722,[68] and, two years later, an orphanage in Potsdam, while the Elector of Saxony took the first measures to provide schooling and assistance in 1740.[69]

[61] Erich 1863, 86–88.
[62] Erich 1863, 97–98.
[63] Erich 1863, 101–102.
[64] Erich 1863, 107–109.
[65] Erich 1863, 110.
[66] Erich 1863, 112–118.
[67] Erich 1863, 121–123.
[68] Kroll 2016, 87–88.
[69] Kroll 2006, 257–259.

In Bavaria, every infantry regiment had a "military school" for boys and girls by 1789.[70] In the school organized by the Saxons in Dresden and moved to Aanaburg, girls were not accepted, but received financial aid, provided they could prove they attended school and were brought up according to good morals. However, the measures were totally inadequate.[71] For example, on 11 May 1772, the child Johann Friedrich Richter was arrested and investigated by the Leipzig authorities. He claimed that he was 11 years old, had no home, but had traveled from village to village begging. His father, Christoph Richter, a soldier in the elector's service, had died five years ago, and his mother had died earlier. He had been wandering the countryside ever since, and, last winter, his legs froze, so his toes fell off his right foot and he had to walk on crutches. Asked if he had been obliged to go to school, he answered in the affirmative, but only while his mother was alive. Since her death, he had not been to any school and could neither read nor write.[72]

As for the measures taken by the Austrians to support military families, they date back to the time of Eugene of Savoy and began with the assistance first given to invalid soldiers to prevent them from succumbing to looting. In October 1723, a commission appointed by the Emperor decided to set up companies for the disabled and hospitals to care for discharged soldiers.[73] Among the most important institutions dedicated to soldiers was the Home for the Disabled in Pest, opened in November 1729. Houses for invalids were to be established in Prague for invalids from the hereditary provinces of Bohemia, and another in Vienna for the Austrian provinces. These were never established, but the money raised was sent to important foundations, which took on the role of caring for invalids from the Bohemian crown lands and the Austrian provinces in city hospitals. The additional costs had to be covered by the provincial and local authorities. In November 1744, there were 1,774 soldiers in the Pest House of Invalids, in March 1748, there were 2,193, and in March 1750, there were 2,603 soldiers, including 100 officers, mainly low-ranking officers. The cost of maintaining invalids in 1750 was 126,743 florins.[74]

This was followed by the establishment of institutions where the children of military families could be cared for and educated. In 1750, an institute for boys was founded in the town of Pettau. In 1772, 61 officers' sons and 140 soldiers' sons, aged between four and 18 or 15, were cared for here until they joined the army as cadets or drummers and whistlers.[75] An educational institution for officer's daughters appeared around 1775, started by Maria Theresa and extended by her son Joseph II.[76] The aim was to train a class of governesses to replace those brought from abroad and, at the same time, to provide deserving officers with support in educating girls[77]; according to the strict customs of the time, girls started this school at the age of five.[78]

[70] Kroll 2016, 82–83.
[71] Kroll 2006, 265–266.
[72] Kroll 2006, 266.
[73] Wunder 1984, 343–344.
[74] Wunder 1984, 348–349.
[75] Wunder 1984, 358.
[76] Rechberger von Rechcron 1878, 182–188.
[77] von Arbter 1892, 3.
[78] von Arbter 1892, 14.

It was not until after 1830 that more important steps were taken to provide schooling for soldiers' daughters, when Empress Caroline Augusta established a foundation for this purpose. Initially, only girls between the ages of five and nine from the first type of marriage, where the woman and children were allowed to stay with the regiment, were accepted. The aim was mainly moral, to save them from the dangers to which girls of the lower classes were exposed. They were to receive a simple, primarily Christian, education, so that they could earn their own living in the future by working as servants.[79]

The decades after 1750 saw a large increase in the number of children who had to be supported by the army, resulting from the first type of marriage. Whereas in 1764 there were between 10,000 and 11,000, by 1773 there were already 29,000, and care was a serious problem.[80] Bringing up children by their parents in the regiment was a great burden and there were not enough places in orphan homes. That is why the Aulic Council of War decided (1772) that, shortly after birth, children should be taken from their parents and sent to caretakers in the country until the age of eight, with a sum of money allocated to for care. From the age of eight, children could work as servants for peasants and were subject to county authorities who decided on their employment, marriage rights, and their recruitment in the army.[81] The harsh treatment meted out to the lower classes was also characteristic of the life of soldiers' families. Michael Hochedlinger considers these measures extremely harsh and similar to those of the Turkish army. The removal of children from their families suggests many tragedies in which these children were the victims.[82] In fact, even in the following century, children from the poorer classes worked from an early age, as Charles Dickens, who had to work in a factory at age 12, depicted in his novels.

It was precisely the increase in the number of children that led to the establishment of regimental schools in 1782, in which the soldiers' boys were cared for and educated. In a decree of the Court (*Hofdekret*) of 9 May 1782, it was decided that all soldier boys who were being cared for (for a fee) by private individuals should be withdrawn from these places and transferred to regimental schools. In return, since girls could not be integrated into the regiments, they were provided with the sum intended for their care until they were able to earn their own living or receive other forms of support. The same measure was to be applied to the boys of soldiers who were accommodated for a fee by the inhabitants of the province or in public institutions, but who, because of their inability to serve in the army, could not be transferred to regimental schools. In addition, with regard to the women and children of soldiers suffering from contagious or debilitating diseases, the current practice was to be maintained, in accordance with the agreement made between the Military Invalids Office and the hospitals concerned, so that the agreed annual sum would be paid without interruption.[83] In 1815, there were 55 such institutions, in each of which there were 48 boys, and, in 1847, there were 41 such schools.[84] Two of these regimental schools were established from the beginning – in 1782 – in Transylvania, at

[79] Rechberger von Rechcron 1878, 196.

[80] Hochedlinger, Mata, Winkelbauer 2019, 741.

[81] Wunder 1984, 358–359.

[82] Hochedlinger 2021, 335–337.

[83] *Handbuch* 1785, 229–231. Alphonse von Wrede states that in 1782 these institutions were established only in infantry regiments; von Wrede 1898, 44.

[84] Wunder 1984, 359.

Brașov and Cluj.[85] There were schools in the territories of the border regiments, but these regiments are not the focus of this study, as they had a different organizational structure compared to regular regiments.

Conditions were milder for children lucky enough to have parents in good health, as in the case of the famous deserter, Steininger, whose mother was a company cleaner in a Piedmontese regiment. As a soldier's son supported by the army, he had to become a soldier, so he started at the age of eight or nine, practicing two hours a day to learn everything a drummer did. Long before he was 16, he was still doing his military service (he does not say how old he was), although he had not yet taken the military oath.[86]

Illegitimate relationships

Robbery and rape have always accompanied the movement of armies, just like prostitutes. A retreating army was left with a number of illegitimate children, not all of whom were the product of rape. In a book on Napoleon's soldiers recruited by the French from French-annexed Germany, the author found that rape was practiced mainly where the civilian population resisted the occupiers, in Spain and Russia, and, along with looting and shooting, was a means of intimidating and humiliating the population. Also, in the early years of the war triggered by the Revolution, numerous rapes took place in the Franco-German border region. Of course, not all sexual contacts were of a violent nature. Many relationships were based on mutual interest, some were even permanent, especially when troops had to be billeted for a longer period of time.[87]

After 1800, the number of marriages was limited, as the *Heirats-Normale* of 1812 stated, to between 4 and 10 % in the case of non-commissioned officers and soldiers, the others being forced by circumstances to content themselves with concubinage or short-term relationships. All the memoirists mention them: the Prussian vivandière writes about the love affairs of Prussian soldiers in Normandy, France, in 1815,[88] and Napoleon's German soldiers also boast of their amorous conquests. One of them, Jakob Walter, records in his memoirs that his unit returned to Brandenburg before leaving for the campaign in Russia, where they had also been during the 1807 campaign. They visited their old acquaintances, some their sweethearts, and others went into hiding so as not to take responsibility for the children they left behind. He also mentions that the soldiers had reliable sources of information about the "supply" of women who might become involved with foreign soldiers.[89] Nor do the memoirs of the Swiss Ulrich Bräker (conscript recruited by the Prussians in 1756, who deserted the same year) omit the relationships with women and girls that his more experienced comrades cultivated, but also the not very pleasant consequence, infection with sexual diseases. He was very young and faithful to his girlfriend,[90] whom he found married with a child on his return home.[91]

[85] Hochedlinger 2021, 529.
[86] Diezel 1841, 18–19.
[87] Mayer 2008, 58.
[88] Erich 1863, 105–107.
[89] Mayer 2008, 58–59.
[90] Bräker 1985, 80.
[91] Bräker 1985, 121.

Infection with venereal diseases is the most often cited reason why foreign women were regarded with suspicion and banished from the military. This was the official recommendation, repeated over and over again. But the officers and the non-commissioned officers in charge of recruiting mainly used alcohol and women of easy virtue,[92] as well as shiny uniforms,[93] to attract naive young men and persuade them to become soldiers. Prostitutes and venereal disease were permanent topics in military circles, and, for a long time, the authorities were content to punish these women. For example, the *Constitutio Criminalis Theresiana*, issued by Maria Theresa in 1769, provided harsh punishments for prostitutes who infected their clients with venereal diseases: their heads were shaved, they were covered with tar or soot and flogged in front of a church. The measures suggested by Joseph II in a letter to Field Marshal Neipperg on 31 March 1774 are also typical of the time. After having visited a military hospital in Vienna where he found a large number of infected soldiers, he points out that in order to prevent the spread of these decrepit and sick women, they should be arrested as discreetly as possible and sent to hospitals to be cured, then punished and deported.[94] Repressive measures were probably counter-productive, so by an order issued on 23 February 1785, Joseph II decided that soldiers should receive a small reward if they pointed out the woman who had infected them, and that she should be treated free of charge and released.[95] This meant that the authorities were becoming aware that this was not just a moral problem, but one that affected the health of the population and the fighting strength of the soldiers.

It is more difficult to trace the shorter or longer relationships soldiers had with women. These appear before the authorities most often when women were questioned about their pregnancy outside marriage. Unfortunately, the research of the new generation of German historians is the only way to get at least an approximate view of the matter.

Although the prohibition of having relations outside marriage was stipulated by all military laws and regulations, as well as by religious authorities, the reality could not be constrained by any law. As a conclusion on the situation in the Saxon army, valid for any army of the time, historian Stefan Kroll states that, in general, the impression is that senior officers did little to combat extramarital relationships of subordinates. Rather, it can be assumed that there is widespread tolerance on the part of the military and civilian authorities for this phenomenon.[96] While the existence and widespread acceptance of illegitimate relationships cannot be denied, their prevalence cannot be explained without reliable statistical sources that are lacking in this pre-statistical era.[97] Studying the same problem in the case of the army of the Duchy of Hanover, historian Ralf Pröeve emphasizes

[92] The works of the military doctors Beinl and Isfordink mention several times the presence of these women at conscription sites, despite official prohibitions; Beinl 1804; Isfordink 1827.

[93] de Gérando 2014, 33–34.

[94] Schrank 1886, 227–228. One of the places of deportation of prostitutes and undesirable men was Banat, where, between 1744 and 1768, more than 2,500 people were deported. Joseph II put an end to these deportations after his visit to Banat in 1768, realizing that instead of being integrated into this underpopulated province, most had perished due to poor living conditions and poor hygiene. See Schrank 1886, 169 and Jesner, Neufeld 2025, 101.

[95] Isfordink 1827, II, 12–13.

[96] Kroll 2006, 244.

[97] Kroll 2006, 245.

that although common, these forms of cohabitation can only rarely and indirectly be proven, for example by the existence of several illegitimate children or a subsequent marriage.[98]

From the biography of the Prussian vivandière, we deduce that all the 25 soldiers who got married on the same day shortly before the Battle of Jena had their wives ready, were already living together, as she was with Jacob Holle, and that it was probably in the run-up to a heavy campaign that more soldiers were allowed to formalize their ties.

The case of the garrison of Mainz, where, in addition to marriages between soldiers and local women, illicit relationships were also established, is very relevant for the difficulty of documenting such relationships. Between 1816 and 1866, in the fortress of Mainz, which became an important defense base of the German Confederation against the French, during peacetime, there were about 6,000 Austrian and Prussian soldiers stationed there, in roughly equal proportions, with their numbers later being increased.[99] In order to accommodate such a large number of soldiers, billeting facilities were organized in former castles, monasteries and churches, which were in poor condition or unsuitable for military purposes, so that billeting was left to the local population, who were paid to provide the soldiers with the necessary facilities, but as always and everywhere, this gave rise to conflicts between the hosts and the soldiers, especially if they had families.[100]

Concubinage relationships are hard to trace, they only surface because of children or other problems. Some years are better documented, for example, 1816–1825. Out of 415 couples living in cohabitation at that time, most families (77%) had only one child, the rest had two or three children, and only two families had four or five children. Even for those with one child, the author assumes a long-term relationship.[101] It is easier to understand the course of these relationships from the biography of a woman from Mainz, Anna Holdenreuter, as reconstructed by the author of the book about the soldiers of Mainz.

She was born in Mainz in 1801 as the daughter of a carpenter. At the age of 19, she gave birth to her first child, fathered by Peter Steinert, a corporal in an Austrian field artillery regiment. Although the two appear to have had an affair of some years, Peter Steinert is no longer recorded in the civil registers after 1825, but seems to have returned to Prague in the late 1820s and died there. She began a new relationship with another Austrian soldier, Balthasar Hitzfeld, with whom she had four children between 1831 and 1841. They most probably did not live together at the barracks, as this was only allowed for legally married wives. Nor were they allowed to be billeted in private quarters. After more than ten years together, Balthasar Hitzfeld left Mainz in 1842, probably because his unit had been transferred or because he, released from military service, wanted to look for work in his hometown in Moravia. Anna Holdenreuter wanted to go to him and made a request to the Mainz city council, asking for a subsidy to cover her travel expenses. The city council surprisingly approved the request, on the grounds that by marrying her ex-boyfriend, public morality was promoted and the children were given their father back. However, she did not use the subsidy, Balthasar Hitzfeld apparently changed his mind and returned to Mainz as a civilian, married her, and earned a living as a shoemaker. She and her husband

[98] Pröve 1995, 107.
[99] Dumont 2010, 17–18.
[100] Dumont 2010, 20.
[101] Dumont 2010, 46.

died in Mainz in 1857 and 1863, respectively. While her sons from her relationship with Balthasar Hitzfeld married into Mainz families, her daughter Klara married an Austrian sergeant in 1864 and left Mainz.[102]

This is a case with a happy ending, but more often than not, women who engaged in informal relationships with soldiers suffered greatly. Researcher Beate Engelen says that in the eighteenth century, especially in rural areas, a promise of marriage was still sealed with sexual intercourse, even though church and secular authorities were insistent on preventing premarital sex. Many soldiers who later regretted such a relationship and showed little inclination to fulfill their paternal duties easily escaped responsibility when the regiment changed location. Also, some rural young men who had impregnated girls used enlistment in the army to escape paternal responsibility.[103] The deserted woman was powerless, she bore all the consequences. Her social and financial catastrophe did not count against the army's interests. The only support could come from the community and the foundations that took on the care of the poor.[104]

Conclusions

In conclusion, we can say that the absolutist state intervened even in the most personal aspects of people's lives – family and children. In its desire to make each individual a useful member of the state and, by extension, the army, the chosen means were arbitrary and sometimes inhumane, especially if we consider the removal of small children from their parents to be cared for by peasants and used as agricultural laborers from a very young age. The restriction on the number of marriages was typical of all armies of the time, but some historians believe that the Austrians were among the most restrictive. This led to the plague of sexually transmitted diseases from prostitutes. They were permanently banished and even whipped, until the end of the Enlightenment, but they were also used, along with alcohol, to recruit young men. Another consequence was an increase in illegitimate relationships, both short and long-term, which were characterized by provisionality, poverty, vagrancy, and marginalization. The children resulting from these relationships were left to chance by soldiers who took advantage of the regimental relocation or the beginning of a war. Only those few soldiers whose families had the right to stay in the regiment could consider that they were not threatened by poverty and decay, and their children benefited from more and more educational opportunities. The state established more and more institutions to support these children, but their capacity was too small relative to the needs, so very few received help. Not all soldiers who had lived in concubinage abandoned their women and children – some managed to marry them later.

The church and political authorities were responsible for the care of the women and children of soldiers who were not allowed to stay in the regiment and of those who were living in concubinage. But the needs of this multitude could not be met from limited funds, so the specter of sickness and poverty was ever-present.

[102] Dumont 2010, 47–49.
[103] Engelen 2000, 257.
[104] Engelen 2000, 258.

As can be seen from the biography of the Prussian vivandière, her personal talent and well-utilized opportunities made her a wealthy woman, which could also be true for other soldier's wives. It was not in vain, however, that marriages to soldiers were regarded with reserve and even suspicion among those of some wealth.

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HUNGARIAN CIVILIANS FROM TRANSYLVANIA IN SOVIET CAPTIVITY BETWEEN 1944 AND 1953

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Abstract: The study outlines an almost forgotten historical event, that of the capture of civilians as prisoners by the Soviet Army taking control over Northern Transylvania in the Fall of 1944. This centrally planned and well-organized action extended all over the northern region of Transylvania, specifically targeting Hungarians from Székely Land, central Transylvania, and Crișana. Approximately 20,000 Hungarian men and young boys were taken by force, among them 5,000 from the capital of Transylvania, Cluj (Kolozsvár). The ages of those taken prisoners were between 15 and 70 years. They were deported to several forced labor camps in the Soviet Union. In most cases, the time spent in captivity was 4 years, but sometimes it took even 8–9 years. The camps were situated on the territory of Ukraine (for example, Mykolaiv), in the Ural Mountains (Ufa, Asa, Magnitogorsk), in the Crimean Peninsula (Sevastopol, Simferopol, Feodosia), or in the region of the Azov Sea (Taganrog), etc.

The prisoners were forced to work in very hard conditions in different mines or in logging. In the summer, they took part in the agricultural work inside the nearby Soviet kolkhoz. As a result of the arduous work, the acute lack of food and medicine, the prisoners became extremely emaciated. One third of them died in captivity.

This part of our contemporary history was a taboo during the Communist era. A real change in this situation was brought about only by the revolution in 1989. This study is part of the body of papers and articles published over the last three decades that describe this tragic event, aiming to provide an overview of the issue under discussion. The source material of the study consists of archival data, specialist books, studies, essays, memoirs, published recollections, data, and articles published in contemporary press, along with interviews with survivors conducted by the author.

Keywords: deportation, lager, trauma, disease, death

Rezumat: Acest studiu îmbrățișează un eveniment istoric aproape dat uitării, al luării de prizonieri de către Armata Sovietică din rândul civililor maghiari din Transilvania de Nord în toamna anului 1944. Acțiunea, planificată central și efectuată în mod sistematic, s-a extins în toată regiunea nordică a Ardealului și i-a vizat îndeosebi pe maghiarii din Secuime, din centrul Transilvaniei și din Crișana. Au fost reţinuţi cu forţa aproximativ 20.000 de bărbaţi și tineri maghiari, dintre care 5.000 în capitala Ardealului, Cluj. Cei ajunși în captivitate sovietică aveau vârste cuprinse între 15 și 70 de ani. Prizonierii au fost deportaţi în diferite tabere de muncă forţată în Uniunea Sovietică. Timpul petrecut în captivitate în majoritatea cazurilor era de 4 ani, dar câteodată prizonieratul dura chiar și 8–9 ani. Lagărele se situau pe teritoriul Ucrainei (de exemplu, Mîcolaiiv), în Munţii Urali (Ufa, Asa, Magnitogorsk), în Peninsula Crimeea (Sevastopol, Simferopol, Feodosia), în regiunea Mării Azov (Taganrog) etc.

Prizonierii erau puși să lucreze în condiţii extrem de precare în mine sau la exploatări forestiere. Iar în timpul verii luau parte la muncile agricole din colhozurile învecinate. Munca

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deosebit de grea, lipsa acută de mâncare și de medicamente au condus la slăbirea până la extrem a reținuților, o treime dintre prizonieri decedând în captivitate.

Această latură sumbră a istoriei noastre contemporane a reprezentat o temă tabu de-a lungul deceniilor erei comuniste. În această privință numai revoluția din 1989 putea să aducă o profundă schimbare. Studiul de față se încadrează în rândul lucrărilor apărute în ultimele trei decenii, care au ca scop descrierea acestui eveniment tragic, încercând să ofere o privire de ansamblu asupra problemei discutate. Sursele folosite pentru realizarea studiului constă din surse arhivistice, cărți de specialitate, lucrări și studii de specialitate, memorii, articole din presa contemporană, respectiv interviuri cu supraviețuitorii, realizate de către autor.

Cuvinte cheie: deportare, lagăr, traumă, boală, moarte

Immediately after crossing the western boundaries of the Soviet Union during the military campaigns in 1944, the Soviet Army started to capture civilians all over the occupied territories of Central Europe. These actions were taken in almost every city, town, or village where the Soviet troops met military opposition. When the fight was over, the civilians nearby were quickly collected and deported as "war prisoners" to Soviet labor and concentration camps.[1] These massive actions, along with those of other countries, affect Hungary as well.[2]

In these times, as is well known, the Second Vienna Award on 30 August 1940 returned the northern part of Transylvania to Hungary, and it remained under Hungarian rule until Autumn 1944, being incorporated into the territory of the Hungarian state. This region[3] of 43,104 km^2 had an ethnically mixed population: according to the 1941 Hungarian census, among the 2,557,260 total population, there were 1,380,506 (53.6%) Hungarian and 1,029,470 (39.9%) Romanian native speakers, together with other ethnic groups, relatively few in number (Germans, Jews, Rusyns, Slovacs, etc.).[4] Because of the slight Hungarian majority and the considerable Romanian minority, Northern Transylvania was in a very delicate situation. The Romanian Government and Romanian society claimed it back for Romania. The relationship between Hungarians and Romanians in the divided Transylvania became very tense.

In these circumstances, the Soviet deportations occurred, which extended all over Hungary, including Northern Transylvania. In 1944–1945, only Hungarian civilians were captured in approximately 300,000 numbers, from every region of the

[1] On the vast topic of civiliarn captives from the occupied Eastern-European territories and their deportation to Soviet lagers, see the followings: Kotek, Rigoulot 2000; Applebaum 2003; Stark 2006; Jambrek 2008; Kiss, Simon 2017; Danilecki, Popławski, Śleszyński, Zwolski 2021.

[2] The deportation of the civilians from Eastern-European countries to the Soviet Union in 1944–1945 is a relatively new research field. The first steps of historical research work on this subject were made in the early 1990s in Poland and Hungary, followed by the Baltic States, Romania, and Slovakia. Until today the most important research results were achieved by Polish and Hungarian historians from the Institute of National Remembrance [Instytut Pamięci Narodowej], from Warsaw, and the International Society of Gulag Researchers [Gulág- és Gupvikutatók Nemzetközi Társasága], from Budapest. In Romania, some important research projects are also in progress due to the activity of the state institute of IICCMER [Institutul de Investigare a Crimelor Comunismului și Memoria Exilului Românesc], established in 2009.

[3] Thirring 1940, 663.

[4] Fogarasi 1944, 4.

country.[5] Among them, there were roughly 20,000. Hungarian civilians from Northern Transylvania.[6] Their deportation and captivity between 1944 and 1953 are the theme of this study. It is true that the number of those deported from the Transylvanian territories is not very high, but it shows that the Soviets used the same methods everywhere. Because the front line passed Northern Transylvania relatively fast, and the fight ended after only two months (26 August–25 October 1944), the deportations were not so large in proportion, as there were, for example, in Budapest, where the number of non-combatants captured by the Red Army reached 100,000.[7]

At the beginning of September 1944, almost immediately after the front reached Northern Transylvania from the East, the deportation of Hungarian civilians began. The reason was collective guilt due to the German–Hungarian military alliance. In this matter is very expressive, that Vyacheslav Mikhaylovich Molotov, the Comissar of foreign relations in the USSR wrote to the British Government already on 7 June 1943, as it follows: "The Soviet Government believes that because of the armed assistance provided to Germany by Hungary […], the responsibility not only lies with Hungarian Government, but to a lesser or greater extent, must be borne by the Hungarian people as well."[8]

Only a few months later, on 14 December 1943, at the meeting with the Czechoslovakian president, Edvard Beneš, in Moscow, Molotov said "the Hungarians must be punished."[9] Contrarily, Stalin and Beneš, in their closing statement at the end of the negotiations on 18 December 1943, declared "the Romanian people, who were opposed to the regime that the war brought them, do not bear direct responsibility for the war."[10]

When Romania changed sides and joined the Allies on 23 August 1944, Hungary remained in alliance with Germany and continued to fight against the advancing Soviet troops; the negative stance against the Hungarians deepened. In these circumstances, the newly established Romanian authorities, now allies of the Soviet Union, had every opportunity to take revenge on the local Hungarian residents for the Second Vienna Award, which returned Northern Transylvania to Hungary in 1940. One of the best ways of revenge was to help the Soviet Army in the deportation of the Hungarian civilians. The young Hungarian men captured by the Soviets were deemed "partisans," who prepared military actions against the "liberators." The local Hungarian population in Northern Transylvania remained defenseless against the Romanian extremists who served the interests of the Soviets in the deportation process. As an example, I will quote the words of Ion Bozdog, prefect of Maros (Ro. Mureş) County, who on 28 September 1944 said the following: "I am as inflexible as Cato the Elder and I will not cease to reiterate: Complete and immediate extermination of Hungarians! Now or never! The Transylvanian land defiled by the Hungarians, from today, it will belong to only one justified nation: the Romanians' heart shall not rest, and Romanian men shall not let their weapons out of their hands until Transylvania is purged of this nation."[11]

[5] Bognár 2017a, 66–93.
[6] Murádin 2023, 27–38.
[7] Bognár 2017b, 150.
[8] Gosztonyi 1990, 152–153.
[9] Gosztonyi 1989, 26.
[10] Benkő 2003, 12.
[11] Quoted by: Ercsey 2006, 9.

The wish of the Romanian extremists for collective punishment of Hungarian civilians in Autumn 1944 met with the Soviet interests to capture as many "prisoners of war" as possible. The problem that the local leaders of the Red Army had to solve was to somehow prove to Stalin that the military opposition was very strong in Transylvania, intercepting the Soviet troops. So, they need to show a significant number of prisoners of war, because the directives given by the prominent leader in Moscow ordered a faster advancement of the Soviet Army to the West. During the two-month-long fighting in Northern Transylvania, the number of all Hungarian soldiers captured by the Soviet Army reached around 20,000, below the Soviet expectations.[12] In the first battles, which took place in September 1944 in the mountainous regions of Székely Land, only a few Hungarian soldiers became prisoners of war.[13] This fact motivated Field Marshal Rodion Yakovlevich Malinovsky, the commander of the 2nd Ukrainian Front, to order actions for capturing Hungarian civilians in the region, to complete the missing prisoners of war. Hence, in the vast area (13,000 km^2) of Eastern Transylvania, 7,000 Hungarian civilians were taken prisoners altogether from different villages and towns.[14]

The bloodiest battle during the Transylvanian campaign took place between 13 September and 8 October 1944 in the central part of the region, near Turda (in Hungarian: Torda),[15] where Hungarian losses amounted to 10,000 men, consisting mainly of wounded (4,000 to 5,000 soldiers) and killed (circa 2,500 soldiers). The number of prisoners of war captured by the Soviet Army in the Battle of Turda reached only 2,500. This was not enough to explain to Stalin the great losses of 90,000 by the 2nd Ukrainian Front (died, disappeared, captured, or wounded).[16] Thus, it is not unsurprising that the largest deportations of civilians per town by percent of population in Transylvania were at Turda. The total population of this town was 30,668,[17] with 7,108 (23%) being the Hungarian minority according to the 1941 census.[18] 700 Hungarians were lost between 7 and 9 October 1944 alone.[19] This means an actual decimation of the local Hungarian population. The actions for capturing Hungarian civilians were extended to the villages near Turda, too. For example, from Bădeni (in Hungarian: Bágyon), 35 young Hungarian men were deported to the Soviet Union in October 1944.[20]

After a few days, as the Soviet troops entered the nearby larger city, Kolozsvár (Ro. Cluj) – the capital of Northern Transylvania with a significant Hungarian majority (88%) at that time – without a fight on 11 October, they launched new capturing raids. Between 12 and 15 October, no fewer than 5,000 Hungarian civilians were apprehended in the city by the soldiers of the Red Army.[21]

[12] The exact number is not known, so it is only an estimation. See, on this topic: Stark 2006, 24–25; Bognár 2012, 41–42.

[13] Illésfalvi, Szabó, Számvéber 2005, 74–88.

[14] See, on this subject: Illyés 1976, 68–69; Gál, Gajdos Balogh, Imreh 1995, 77–78.

[15] Ravasz 2002, 175–207.

[16] Illésfalvi, Szabó, Számvéber 2005, 164.

[17] Manuilă 1943, 196.

[18] See, on this matter: Varga E. 2002.

[19] Papp 2001, 156.

[20] Serviciul Arhive Naționale Istorice Centrale, București, Fonds 27, *Uniunea Populară Maghiară*, M.A.D.O.SZ.

[21] Ercsey 2006, 39.

The official reason for mass deportation was, in most cases, to render impossible any "partisan activity" against Soviet troops and supply routes.[22] However, besides replacing missing prisoners of war, as previously shown, the real reason was to collect a workforce for reconstruction work in the Soviet Union.[23]

In these circumstances, we had to establish that the autumn 1944 deportations from Northern Transylvania were no doubt part of the general practice used by the Soviet Army all over the territories of Eastern Europe, where it took control.[24] However, besides this fact, these deportations in Transylvania had a specific characteristic too: they were part of an attempt at ethnic cleansing. With the collaboration of Romanian extremists, a systematic deportation of Hungarian intellectuals took place as part of general war-prisoners-capturing actions. Only from Kolozsvár, the proportion of intellectuals among the 5,000 deported Hungarian people was approximately 16%. Among the captured civilians was Imre Mikó, lawyer, Member of Parliament, chief political secretary of Transylvanian Party (the most important political mass organization of the Hungarians in Northern Transylvania), together with Károly Pikéthy and László Mikecs, historians, János Erdő later Unitarian bishop, Andor Járosi Lutheran dean, professor and writer, Tibor Nagy prosecutor, Ignác Bartha, István Decsy, János Hunyadi attorneys, Béla Jancsó doctor, Lajos Józsa chemist, Zoltán Kovács physicist, associate professor, József Faragó, József Árvay, Ferenc Haáz, Gábor Sándor ethnographers, József Márton painter, Tibor Túróczi actor,[25] and almost all the men from the teaching staff of the famous Reformed College of Kolozsvár: Zsigmond Ádám, József Bartalis, János Bodrogi, Gyula Fazekas, Miklós Fejér, Zoltán Finta, Zoltán Kovács, Ernő Maklári, and János Máthé.[26]

At the same time, Romanians, especially intellectuals, were rarely captured. If they were, they would be immediately released after the first interrogation in which their nationality would be revealed.[27]

The captured Hungarian civilians from Turda and Kolozsvár were transferred by train in very bad circumstances, crammed in stock-cars, to the transit lager in the great city of southeast Transylvania, Braşov (in Hungarian: Brassó). Those who were deported two weeks earlier from Szeklerland were also there.[28] After some weeks, all of them were entrained again, and were transported across the South Carpathians through Predeal Pass in the territory of the Romanian Old Kingdom. Here, they followed the external arch of the Subcarpathians, reaching Ploieşti, Buzău, Râmnicu Sărat, and finally Focşani, where the largest Soviet concentration camp in South-Eastern Europe was operating at that time.[29] In Focşani, they were selected for different transports, quickly entrained into wide-track Russian rail cars, and transported to the Soviet Union.

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[22] Benkő 1999, 123, 149, 168.

[23] Murádin 2016, 83.

[24] See, on this topic: Kiss, Simon 2017, 23–27.

[25] Murádin 2023, 43–44.

[26] Seviciul Judeţean Cluj al Arhivelor Naţionale, Cluj-Napoca, A Kolozsvári Református Kollégium levéltára, Fonds 289, Dos.157, File no. 1/1944, Tanárkari jegyzőkönyv, 20 Dec. 1944; Kolozsvári 2007, 386–388.

[27] Dózsa 2004.

[28] Ercsey 2006, 38.

[29] Szabó 1994, 31–37; Papp 2001, 136; Ercsey 2006, 36, 38–39.

The deported Hungarians reached Soviet soil through the River Prut near Iași, at the border station Ungheni.[30] Their destinations became different labor or concentration camps of Gupvi (Glavnoe Upravlenie po delam Voennoplennykh i Internirovannykh).[31] According to my research, based on memoirs and interviews, the Transylvanian Hungarian civilians were dispersed in 106 different main and sub-camps of Gupvi. I identified most of them in the Soviet Socialist Republic of Bashkiria and the nearby Chelyabinsk Oblast in the Southern Urals, where the majority of the deported Hungarians from Transylvania arrived after a long route through Chernivtsi, Kyiv, Moscow, and Kuybyshev (today: Samara). The most important camps, where the Hungarian civilians spent their captivity in the Ural Mountains were near the following locations: Chelyabinsk (camps Nos. 102, 102/2, 102/5, 102/9, 102/24, 102/30), Asha (camps Nos. 6, 130, 130/1, 130/3, 130/4, 130/5, 130/7, 319/1), Kopeysk (camps Nos. 201, 202, 204), Magnitogorsk (camps Nos. 257, 257/2, 1079, 1080, 1081, 7602, 7605), Ufa (camps No. 319/2, 319/3), Beloretsk (camps Nos. 7775, 7777), and other lagers in Shalasova, Novi Shalashova, Karpachova, Minyar, Ishembaya, Kysthym, Karabash, Nizhny Tagil, Verkhny Ufaley, and Tvaraya Platina.[32]

Other Transylvanian Hungarians got to labor camps in the South-West Gupvi camp systems of the Volga, in the Saratov Oblast, on the shores of Azov Sea at Taganrog (camps Nos. 251/2 and 356/1), in the area of Kropotkin of the Krasnodar District, and on the Crimean Peninsula in the cities of Feodosia, Simferopol, Sevastopol (camp No. 299), and Kerch (camps Nos. 299/2, 299/3, and 299/7).[33]

Hungarian civilians from Transylvania were transported to camps in Ukrainian territories in relatively high numbers: Lvov (today: Lviv), Nikolayev (today: Mykolaiv – camp No. 126), Maghino, Kharkov (today: Kharkiv), and Stalino (today: Donetsk). Lots of them were forced to work in labor camps of the Donbass coalmines in Gorlovka (camp No. 28), or Koborla (camps Nos. 144/3 and 144/9).[34]

Those few Hungarians who were sent north to the Karelo-Finnish Soviet Socialist Republic, near Lake Onega, had to endure very hard climate conditions at Segezha (camp No. 7,212) and Medvezhyegorsk. Life in captivity was much more bearable for those in different camps at Kishinev or Bender in the Moldavian Soviet Socialist Republic, not so far from home.[35]

The Soviet captivity caused much pain not only for those deported, but for their relatives too. They knew nothing about the prisoners or their fate for a long time. The relatives of those who had died during transport, or before the first statistics were conducted in concentration camps, would have heard of the fate of their loved ones, perhaps years later or never. The primary source of information on deported relatives, besides the accounts of released prisoners, was letters sent home. However, the labor camp postal system, put into service only at the beginning of 1946,[36] was not active in all the camps, and where it

[30] Vincze 1991, 3.
[31] In English: Main Administration for Affairs of Prisoners of War and Internees.
[32] Papp 2001, 139, 142–143, 150, 152, 157–159; Zsigmond 2002, 148.
[33] Dupka 2015, 108.
[34] Dózsa 2004.
[35] Murádin 2023, 70–74.
[36] Zsigmond 2002, 89–90.

functioned, it was always late and irregular. In most cases, only one camp postcard could be sent home each month. These postcards were forms of the International Red Cross and had enough space for only short messages written home. Every postcard was inspected by the center of censors in Moscow, and from there it was sent to the address. If the text on the postcard contained exact information about the location of captivity, the circumstances in the camp, the victims of the forced labor system, or any other data considered "classified," the postcard was never sent to the recipient. Even the number of the labor or concentration camp had to be indicated as a "mailbox number" until the Paris Peace Treaty was signed on 10 February 1947. From the end of 1948, it became possible to send longer letters. But until then, the majority of those who survived had returned home, and only a few letters had been written. The censure remained, causing the postal system to function slowly throughout the period of captivity, leading to some tragic situations. In some of the cases, by the time the postcard or letter reached the address, the writer had already died somewhere in the Soviet Union.[37]

The working conditions in captivity were very hard. The civilian deportees, in many cases 16–17-year-old minors, were put to work together with the real war prisoners, 20–30-year-old soldiers with work experience. They had to work under the same harsh conditions in mines,[38] factories,[39] lumbering,[40] or on roads, railways, bridges, and other constructions.[41] The extreme winters in the Soviet Union made the work outside the camps much more cumbersome. Due to the general regulations, every prisoner had to work until the temperature reached –35 °C.[42] This meant they were outdoors for more than 10 hours a day for months, enduring extremely cold conditions to meet the prescribed norms. These norms were elaborated for healthy, well-fed workers, and even for them, could be troublesome to fulfill. If the prisoners could not complete the daily norm, they were deprived of dinner, and their general condition became worse.[43] After some days without dinner, they lost their force to work because of starvation and finally died from marasmus. In most cases, besides terrible infectious diseases like dysentery, epidemic typhus, dystrophy, meningitis, or even malaria,[44] this was the leading cause of death.

Every summer, most of the prisoners were occupied for approximately two months in agriculture in different kolkhozs near the lagers. This work was easier, and they had the opportunity to get more food than during the long, hard winter period, when consecutive waves of famine decimated the camps' population.[45]

The many years of forced labor took an extreme physical toll on the prisoners, often leading to death. For one third of deportee civilians, there was no chance for survival. The number of casualties in the case of the Hungarian civilians from Transylvania is somewhere

[37] About the Soviet camp postal system of the postwar years, see more: Murádin 2023, 110–121.
[38] On this matter, see: Szabó 1998, 28; Papp 2001, 153–155.
[39] Zsigmond 2002, 131.
[40] Ercsey 2006, 27.
[41] Papp 2001, 157.
[42] Csetri 2004.
[43] Ercsey 2006, 119–127.
[44] About the disease in captivity, see: Zsigmond 2002, 47–48, 56, 72, 81; Szabó 1994, 68, 73.
[45] Csetri 2004.

between 5,000 and 6,500, equivalent to 25% to 32.5%.[46] About 1,600–1,800 people who died came from Kolozsvár, and 217 from Turda.[47]

Those who survived the Soviet captivity were released sporadically. In the summer of 1945, those who had been officially deemed unfit for work or completely enfeebled were sent home.[48] Some of them could not endure the long way home. The majority of prisoners were released only after the establishment of Communist rule in Romania, between March and October 1948.[49] The last large prisoner transport reached Transylvania in October 1949.[50] Those who remained further in the Soviet Union returned in small groups between 1950 and 1953.

It is easy to observe that the pace of the repatriation was dictated by the degree of Soviet influence in Hungary and Romania. As the Communist regime was being established in Budapest and Bucharest, the process of transporting back the still-living prisoners could gradually be initiated. Since Hungarian deportees from Northern Transylvania were Hungarian citizens at the time of their capture, they could choose where to return: Hungary or Romania. In most cases, they chose their homeland, Transylvania, where their families, relatives, and friends lived, by then again under Romanian rule.[51]

Some of the returning survivors were directed to Camp No. 36 in Sighetu Marmației (Hu. Máramarossziget), in the northern part of Transylvania;[52] others arrived at the large transit camp in Focșani[53] in the southern part of Romania. The Romanian army took on the guarding of the returning people immediately after they passed the state border and until their release.

The Hungarian civilians returned home to encounter a totally altered world from the one they had left in Autumn 1944. Their reintegration into society could only remain ambiguous. Many of them died early due to illnesses suffered in the Gupvi camps, whereas others suffered lifelong health issues. However, besides this, there is the psychological trauma that all the survivors suffered, apart from the time spent in captivity. The horrors of concentration and labor camps were etched upon them, imprinted into them for years: continuous famine, exceedingly cold winters in the Soviet Union, illnesses, catastrophic hygienic circumstances, the continual daily loss of a friend, and perpetual homesickness made it very hard for them to have a normal life.[54]

The Soviet deportation of Hungarian civilians from Northern Transylvania was taboo for a long time in Romania. During the 45 years of Communism, the terms of Soviet labor camps, or civilian deportees, simply did not exist. It was totally impossible to remember or write about this. Events were doomed to oblivion, and by the 1989 revolution, they seemed to be already forgotten.

[46] Estimation of the author based on memoirs and interviews.

[47] Murádin 2023, 127.

[48] Varga 2004.

[49] Szabó 1994, 125–127; Murádin 2023, 134.

[50] Papp 2001, 148, 156, 161.

[51] Szabó 1994, 129.

[52] See, about this: Ákosi 2017, 3.

[53] Mile 2004.

[54] See, on this topic, the interviews made by the author with Csetri 2004; Dózsa 2004; Mile 2004; Varga 2004.

In the last three decades, some memoirs have been published[55] and public monuments of deportation have been erected in Transylvania. But civil associations initiated the building of all of these monuments, and none by the Government. The first headstone remembering the Hungarian civilians deported from Transylvania to the Soviet Union was erected in the Central Hungarian Cemetery of Turda in 1995. Almost twenty years went by until the monument could be completed with the names of the deportation victims and re-dedicated on 4 October 2014[56] in the town where the Hungarian community had meanwhile become a minority, now only accounting for 8% of the Turda population.

A few days later, on the 70th anniversary of the deportation, a trilingual (Hungarian–Romanian–German) memorial, made by local sculptor Zoltán Gergely, was erected in the Házsongárd Cemetery in Cluj-Napoca on 14 October 2014. Its inscription shows that it was created "For the memory of 5,000 civilian men deported from Kolozsvár to the Soviet Union in October 1944."[57] Simultaneously with the realization of this new memorial and for the first time in Romania, a great international conference, dedicated to the memory of the deportation of civilians, was held at the "Sapientia" Hungarian University of Transylvania in Cluj-Napoca.

Finally, two years later, in the context of the *Commemorative Year of Political Prisoners and Deportees for Forced Labor in the Soviet Union* initiated by the Hungarian Government, it became possible to establish an imposing monument dedicated to those Hungarian civilians who were deported from Kolozsvár to the Soviet Union in October 1944. The inauguration of the fourlingual (Hungarian–Romanian–German–English) monument took place in the same location, in the Házsongárd Cemetery on 19 November 2016.[58]

In connection with the establishment of this new monument in Cluj-Napoca, a permanent exhibition was opened in the building of the Faculty of Sciences and Arts of the "Sapientia" Hungarian University of Transylvania in Cluj-Napoca. The exhibition incorporates more than 400 deportees' memorabilia: items brought back from the concentration and labor camps, diaries, letters and postcards, photographs, original manuscripts of unpublished memoirs, etc.[59] At the same time, a documentary on the deportation of the Hungarian civilians in Autumn 1944 was made, based on interviews with the last survivors.

All of these projects are only the beginnings of a very long process of achieving the genuine preservation of the collective memory regarding the Hungarian civilians' deportations. It is an arduous but important duty in order to strengthen the identity and historical consciousness of the Hungarian minority in Romania.

[55] The most important of these works are the following: Kiss 1992; Szabó 1994; Zsigmond 1995; Lőrincz 1997; Zsigmond 2002; Ráduly 2005; Ercsey 2006.

[56] Cech, Józsa, Kékkői 2017, 11–12.

[57] Cech, Józsa, Kékkői 2017, 38–39.

[58] Cech, Józsa, Kékkői 2017, 68.

[59] Mészáros 2016.

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Forgotten Warriors and Eternal Adornments, MNIT Exhibition, photo by Cristina Rădulescu

MUSEUM EXHIBITION DESIGN

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BUILDING THE FIFTH CENTURY. THE NARRATIVE OF A MUSEUM EXHIBITION

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Abstract: This article examines the conception, planning, and implementation of the exhibition *Forgotten Warriors and Eternal Adornments* (National Museum of Transylvanian History, 2024–2025), aiming to investigate how a complex museum project is developed and managed in contemporary Romania. It is structured in several sections that move from the theoretical framework, exploring the evolving role of museums from repositories of artifacts to platforms for dialogue and participatory learning, towards the practical stages of project management. These phases include human resources, financial planning, legislative constraints, and conservation requirements, approached from the perspective of the curatorial team. The narrative highlights strategies for integrating scholarly research with public engagement, emphasizing the importance of interdisciplinary collaboration, inclusive communication, and audience-centered interpretation. The article also reflects on the challenges raised by the Romanian legislative and institutional context for international cultural cooperation. By linking the theme of migration in the 4th–6th centuries to contemporary issues, it argues for exhibitions as tools of critical reflection and social connection. The concluding sections draw lessons from this project, advocating for structural changes in museum organization to align with international standards, enhance efficiency, and foster innovation in heritage presentation. The research explores what worked well, what obstacles emerged, and what lessons can be learned from this process.

Keywords: exhibition project, curatorship, project management, migration, the fifth century, Șimleu Silvaniei

Rezumat: Acest articol analizează conceperea, planificarea și implementarea expoziției *Războinici uitați și podoabe eterne* (Muzeul Național de Istorie a Transilvaniei, 2024–2025), având ca obiectiv investigarea modului în care este dezvoltat și gestionat în România de azi un proiect muzeal complex. Este structurat în mai multe capitole care trec de la cadrul teoretic care explorează evoluția rolului muzeelor, de la spații de prezentare a artefactelor la platforme de dialog și învățare participativă, la etapele practice ale managementului proiectului, incluzând resursele umane, planificarea financiară, constrângerile legislative și condițiile specifice de conservare. Narativa evidențiază strategiile prin care cercetarea științifică se întâlnește cu strategiile de implicare a publicului, subliniind importanța colaborării interdisciplinare, a comunicării incluzive și a interpretării centrate pe vizitator. De asemenea, articolul discută provocările generate de contextul legislativ și instituțional românesc în cooperarea culturală internațională. Prin legătura dintre migrațiile din secolele IV–VI și problemele contemporane, se arată cum expozițiile pot deveni instrumente de reflecție critică și de conectare socială. Capitolul final subliniază concluziile la care

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autorii au ajuns în urma implementării acestui proiect, recomandând schimbări structurale în organizarea muzeelor, pentru alinierea la standarde internaționale, creșterea eficienței și stimularea inovației în prezentarea patrimoniului. Cercetarea analizează ce a funcționat și ce nu a funcționat, ce obstacole au apărut, cum au fost depășite, și ce lecții pot fi învățate din acest proces.

Cuvinte cheie: proiect expozițional, curatoriat, management de proiect, migrație, secolul al V-lea, Șimleu Silvaniei

Introduction

In recent years, the role of museums has experienced profound transformations. From their traditional function as deposits of artifacts, museums have increasingly assumed educational and participatory roles, engaging audiences not only as visitors but as active partners in meaning-making. This shift has been reflected in theoretical debates about the "critical museum," the "participatory museum," and in the redefinition of the museum itself, as endorsed by ICOM in 2022, which emphasizes inclusivity, accessibility, diversity, participation, and sustainability as core values of contemporary museology.

Within this international context, the challenges faced by Romanian museums are particularly relevant: limited resources, legislative constraints, and a relatively modest tradition of international exhibitions create a demanding framework in which curatorial and educational innovation must find expression.

This article examines the exhibition *Forgotten Warriors and Eternal Adornments* (National Museum of Transylvanian History, Cluj-Napoca, November 2024–September 2025) as a case study in curatorial practice and project management in Romania. The exhibition, which brought together, for the first time in Romania, artifacts from the two treasures from Șimleu Silvaniei, along with other spectacular discoveries from the Migration Period, offered us the opportunity to present these objects within a broader narrative of identity, cultural interaction, and continuity in European history, aiming to provide the general public with a nuanced understanding of the fourth–sixth centuries AD. The article aims to analyze the curatorial strategies, educational approaches, and cooperation involved, as well as their interplay with the specific institutional and legislative context of Romania, reflected through the above-mentioned exhibition.

This article employs a case study methodology, drawing on the authors' direct involvement in the curatorial and managerial processes of the exhibition, providing valuable insight into decision-making and problem-solving processes. The analysis is based on project documentation (budgets, calendars, loan agreements), records of interdisciplinary collaboration (team meetings, correspondence), and visitor feedback collected through surveys, social media, and participatory installations. These empirical sources are interpreted in dialogue with existing museological literature, allowing the connection of the practical experience of organizing an international temporary exhibition in Romania, with broader theoretical debates on curatorship, education, and heritage mediation. In addition, the methodological framework includes a detailed presentation of the main exhibition guidance and interpretive layers that mirror current practices in the international museum field. Data interpretation follows a reflective analytical approach, connecting the practical experience of exhibition planning with current theoretical perspectives in museology. The

goal was to extract lessons that could influence future museum practices in Romania. The study is limited by its focus on a single institution and by the temporal framework of the exhibition, yet its results are transferable to other contexts where similar institutional and legislative challenges may arise.

The first objective of this study is to analyze the curatorial strategies employed to move beyond an object-centered display and create a narrative that connects past and present, academic research, and public engagement. Second, it highlights the educational dimension of the project, showing how multiple levels of communication: texts, graphics, video, animation, and participatory installations were combined to reach diverse audiences. Third, it critically reflects on the organizational and legislative challenges that shaped the project's implementation, drawing lessons that may serve as valuable references for other museum professionals in Romania.

We believe the article contributes to the ongoing discussion about the social role of museums and the practice of curatorship. We hope that the experience of this exhibition underscores the essential steps Romanian museums must take to align with international standards and respond effectively to the cultural and educational expectations of contemporary society. This case study is relevant as a model of good practice in Romanian museology because it demonstrates how complex interdisciplinary cooperation and adaptive management can overcome systemic constraints. The lessons learned may serve other curators developing similar projects.

After a brief introductory subsection that explains how the exhibition was conceived and outlines its primary objectives, the article is structured into two relatively distinct yet organically connected parts. The first part focuses on curatorial project management, detailing budget planning, time management, human resources management, the legislative framework of the project, as well as the conservation and display requirements of the objects. All these factors shaped and influenced the development and implementation of the curatorial vision, which forms the subject of the second part of the article.

A theoretical chapter precedes the second section, which provides an overview of current trends in museology and curatorship, followed by an analysis of the main curatorial directions of the exhibition under discussion, together with its educational and cultural objectives and the strategies used to implement them. In its final section, the article presents both general and specific reflections derived from the process of developing and implementing the exhibition project.

The birth of the exhibition

The National Museum of Transylvanian History aimed to organize a large-scale temporary exhibition – one of the most significant events ever held by our institution, intended to capture major historical and archaeological phenomena that profoundly influenced the evolution of Europe and represent a shared cultural heritage for the entire European community.

These phenomena not only influenced European societies over time but also represent a shared cultural heritage that connects the diverse regions of the continent. Through this approach, the exhibition seeks to offer a connected perspective on Europe's past, highlighting the elements that have shaped shared identities and cultural links. It

showcases unique treasures, including jewelry, medallions, and vessels crafted from gold and silver. These items were loaned from the collections of fourteen museums in Romania and abroad. The highlight pieces are part of the treasure from Șimleu Silvaniei, discovered in two stages (1797, 1889), and currently held in the collections of the Kunsthistorisches Museum in Vienna and Magyar Nemzeti Múzeum in Budapest. The treasure of Șimleu Silvaniei ranks among the most important discoveries from the Migration Period, not only regionally but also at the European level. Until now, the two parts of the treasure have been united only once for a temporary exhibition in Vienna and Budapest in 1999.[1] Artifacts from both hoards were exhibited for the first time in Transylvania, their place of discovery.

The cultural project began in 2018, when a team was gathered to create an exhibition showcasing the treasures discovered at Șimleu Silvaniei. The initial concept envisioned a professional display of the two treasures, highlighting the beauty and the story of these artifacts, which had never been exhibited in Romania and had rarely been exhibited together. Despite the enthusiasm, several obstacles – most notably the COVID-19 pandemic – led to the project being postponed.[2] However, the desire to bring it to life never faded. In 2023, the project was revived by a new and larger team. This time, the exhibition was expanded and focused on presenting the elites of the fourth to sixth centuries AD, through some of the most significant archaeological discoveries – treasures from Șimleu Silvaniei, Pietroasele, and Cluj–Someșeni, as well as elite graves from Apahida, Florești–Polus Center, Turda, to mention but a few.

The concept endeavors to reinterpret the Migration Period as an era of continuity and change, a phase integral to the *longue durée* of European history, and essential to understanding the genesis of medieval states. Through an innovative and interactive display, the project sought to appeal to all generations and succeed in reconnecting the youth with history. The curators aimed for the event to highlight the richness and cultural diversity of the Middle Danube region, a strategically important area since Antiquity and continuing to be so to this day. A further objective was to foster openness toward cultural diversity and to deconstruct stereotypes commonly associated with migration.

In defining the vision of the exhibition, the curatorial team articulated two distinct categories of objectives. The curatorial objectives focused on the scientific narrative: selecting and contextualizing the artifacts, ensuring the coherence of the storyline, and presenting the treasures within a rigorous academic framework. In parallel, the cultural-educational objectives aimed to translate this scientific content into an accessible and meaningful experience for a diverse audience. These aims influenced how the exhibition combined interactivity, sensory immersion, narrative techniques, digital tools, and participatory practices.

Our primary target audience has been younger generations, aged 12 to 45, with a particular focus on pupils and students, who can enjoy the museum experience in diverse ways depending on their age, knowledge, and interests. Actually, in recent years, youth engagement has become a strategic necessity in the museum field and a constant

[1] Kiss, Berhnard-Walcher 1999; Seipel 1999.

[2] Two rooms for the two treasures were planned and built in 2019: Furu 2024, 174–175, Fig. 1. Out of these, the octagonal structure of the room designed for the first treasure was partially kept in the exhibition in 2024.

preoccupation for museums.[3] This does not mean, however, that the exhibition overlooked other categories of visitors, such as families or younger children aged 3 to 7. While children engaged in playful discovery, parents could immerse themselves in written explanations or interact with digital screens, where our specialists provided additional insights into various artifacts and their broader contexts.

Curatorial project management

The success of a large-scale cultural project is always closely linked to effective management. From the outset, it was clear that due to time constraints (approximately one and a half years), financial and bureaucratic challenges, and the lack of Romanian legislation appropriate for international exhibitions, the realization of the project seemed almost impossible. However, the impossible became possible through a rigorously developed plan and a well-coordinated team, in which each member assumed a clear role in content creation and problem-solving.

Although we were unable to follow the detailed plan step by step, its existence served as a true compass, helping us focus on resolving issues, maintain direction, and keep the proposed objectives in sight. Nevertheless, frequent adjustments to the plan were necessary to adapt to unexpected situations and find new solutions. Thus, the exhibition project began by identifying challenges and risks, followed by rigorous planning in human resources, finances, time management, and task allocation, enabling a rapid and efficient response.

Human resource management

A complex exhibition project requires the involvement of specialists from all areas of implementation, expertise that cannot be provided solely by museum staff. In Romanian museums, however, it is common for exhibition curators to take on multiple responsibilities, often extending beyond their specific area of expertise. This paper questions the impact of this practice on institutional efficiency and curatorial quality. We argue that it is time to move away from the multitasking approach in the cultural and heritage sector. Integrating diverse specialists into cultural projects involves delegating responsibilities and choosing knowledge and cooperation over chaos and juggling multiple tasks. The involvement of a broad range of actors is essential: from architects and construction companies to art transport specialists, public relations, and advertising professionals.

Approximately 60 people were involved in the project, including curators, architects, conservators, museum management, designers, animators, construction firms, furniture makers, display producers, printing services, transport and insurance companies, security company, public relations staff, actors, and media specialists. The team collaborated in both small and large groups, exchanging hundreds of emails and organizing numerous online groups and meetings to coordinate all the details.

The core team consisted of three museum employees, each expert in a different field: archaeology, numismatics, and art history. The diversity of the team was the key factor that triggered their creativity. Moreover, their offices being on the same floor of the museum building facilitated spontaneous meetings and smooth collaboration. Teamwork was characterized by a constant flow of ideas and solutions, resulting in a strong unity of the

[3] Aljas et alii 2025, VIII–XIII.

exhibition concept and high implementation efficiency. As David Dean aptly observed, "the development of interpretive strategies is a journey best embarked upon in the company of others."[4] In this spirit, our curatorial team engaged in numerous collaborative sessions marked by critical discussions, divergent perspectives, and negotiated compromises, all aimed at refining the exhibition's interpretive framework.

Due to the short timeframe for planning and execution, it was clear that another key member of the team had to be an architect experienced in exhibition design, capable of also managing construction works. The close connection between planning and execution is crucial, especially under time pressure, having a direct impact on the form and quality of the final product – the exhibition.

It is important to note that prestigious museums worldwide have specialized departments dedicated to the various stages of exhibition planning, for example, the loans department, which routinely manages such activities. In Romania, however, another major impediment to efficiency in human resource management is that many large-scale cultural institutions are forced to operate with an undersized number of qualified staff in several fields (financial specialists, project managers, consultants, legal advisers, as well as drivers, electricians, builders, and other workers). As a result, curators must engage in a wide range of activities, many of them outside their area of expertise, which leads to significant losses of time and energy, seriously undermining project efficiency. This significant shortcoming was only partially mitigated in our case by engaging specialists from the private sector.

Financial management

A detailed budget was prepared in the initial planning phase since it represents the main condition for any high-impact project. Following initial meetings and information exchanges, nine main expenditure categories were identified around which the budget was structured. Both the national currency (lei) and euros were used simultaneously to compare external prices and costs demanded by partner institutions. The budget was continuously updated during the initial implementation phase, based on received offers and administrative fees stipulated in loan contracts. The final budget version was completed about one year before the opening.

One of the main obstacles for Romanian cultural projects is the annual state budget, which complicates the implementation of multi-year projects by not allowing fund transfers between years. International exhibitions require at least one year for planning (financial and architectural) and two years for implementation. Unfortunately, we had only 20 months for both stages. Although pressure can stimulate creativity and efficiency, it certainly affects the mental health of the organizers.

The main expenses of the project were:

1. Loan processing administration fees (KHM, Vienna / HNM, Budapest)
2. Transportation of artifacts
3. Insurance for artifacts
4. Security and protection services
5. Installation and execution work
6. Advertising and promotion

[4] Dean 1994, 103.

7. Exhibition catalogue
8. Transport and accommodation services for delegates of partner institutions (curators, conservators, directors)
9. Conservation equipment

Time and task management

The general task table identified the nine main activity domains during the initial planning phase, aiming to cover all project management aspects (Fig. 1). Each domain had a separate sheet representing a detailed calendar, starting from the initiation of work according to this model. For example, work on the *Concept* began in November 2023, with an estimated completion by August 2024 to meet the opening deadline of 4 November 2024. In this case, the person responsible for a task is listed in a separate column highlighted in yellow. The start and duration period of the task are marked in blue, while the final month by which the task should be completed is marked in orange (Fig. 2).

The calendar proved to be an extremely effective tool, facilitating clear assignment of responsibilities and deadlines. Thus, each team member had a well-defined role, bringing transparency regarding responsibilities. The calendar was constantly updated to reflect daily realities, and deadlines were often extended to meet new challenges. While the task table provided valuable guidance throughout the implementation process, it could only partly compensate for the financial instability and the inconsistent workflow stemming from the internal human resource constraints discussed above.

Loaning high-value heritage artifacts from abroad

The absence or ambiguity of legislation regarding the loan of high-value heritage artifacts is one of the main management challenges in Romania when organizing international exhibitions. This issue partly stems from the limited number of such exhibitions held in Romania, which would otherwise encourage legislative development, establish precedents, and foster experience in the field.

Immunity from seizure

One of the key conditions set by both foreign partners for loaning objects from the treasure from Șimleu Silvaniei was to issue a document guaranteeing immunity from seizure of the artifacts while they are under the jurisdiction of the Romanian state. Immunity from seizure can be defined as a legal guarantee that cultural objects on temporary loan from another state will be protected against any form of seizure during the loan period.[5] It helps prevent claims of ownership, particularly in situations when it is disputed (e.g., allegedly stolen, illegally exported, or expropriated artifacts), and protects from seizure due to debts (not necessarily related to the objects on loan) of the owner state towards a company or an individual, or other unforeseen situations.[6]

The treasure from Șimleu Silvaniei represents a particular case: both parts were discovered on the present-day territory of Romania, but at a time when Transylvania was not part of the country. The first treasure, found accidentally in 1797, was transported directly to Vienna, then the capital of the Habsburg Empire, and acquired by the imperial

[5] van Woudenberg 2010, 185.

[6] van Woudenberg 2010, 185–186; Nafziger 2021, 299.

treasury. Today, it is held in the Kunsthistorisches Museum in Vienna.[7] The second part, also discovered by chance in 1889, in the era of the Austrian-Hungarian Monarchy, was taken to the Hungarian National Museum in Budapest.[8] Although both assemblages reached their final destination completely legally, the concern that they were found on the territory of today's Romania justified the request for immunity from seizure.

This legal safeguard has increasingly become part of international exhibition practice in recent times, especially for high-value loans. Some countries have their own legislation on this matter.[9] Romania, however, is not among them. Its current legal framework[10] addresses only stolen and illegally exported cultural goods and is not retroactively applicable (namely, prior to 1993). Moreover, there is no clear reference to anti-seizure measures.

State immunity for cultural objects on loan is still a debated issue on the international level too, and therefore, despite significant recent progress,[11] several unsolved problems persist. A frame is offered by the United Nations Convention on Jurisdictional Immunities of States and their Property from 2 December 2004,[12] which provides immunity for cultural state property, listed in art. 21(1) as a category that "shall not be considered as property specifically in use or intended for use by the State for other than government non-commercial purposes."[13] The Convention serves more as a guideline for those states that signed it; however, the current national legislations were generally adapted according to the existing domestic laws of each country.

Since Romania lacks proper legislation on the subject, the Ministry of Culture[14] was unable to formally grant immunity from seizure for the objects on loan from Vienna and Budapest. As a solution, with reference to the UN Convention as customary law, a "Letter of comfort"[15] was issued, which guaranteed that the Ministry of Culture would not undertake any action to seize the loaned artifacts. This measure may serve as a precedent for future international exhibitions. Nevertheless, it would be necessary for Romania to develop a more comprehensive and accurate legislation on this issue in order to facilitate international cultural cooperation and support large-scale temporary exhibitions in the future.

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[7] For details related to find circumstances, see Bernhard-Walcher 1999a; Bernhard-Walcher 1999b.

[8] For details related to find circumstances, see Kiss 1999a; Kiss 1999b.

[9] The USA was the first to introduce such laws in 1965, followed by several European countries beginning with the 1990s. At present, at least fifteen states have anti-seizure legislation: Pavoni 2020, 569–570, n. 109; see also van Woudenberg 2010, 188–189; Nafziger 2021, 296.

[10] UNIDROIT Convention from 24 June 1995, ratified in 1997 (Lege 149/24.07.1997); Lege 182/25.10.2000 (republished in 2008), Chapter IX; Directiva 2014/60/UE; Lege 123/30.05.2017.

[11] For a detailed overview, see Nafziger 2021, 291–323.

[12] Not in force yet, signed by Romania on 15 September 2005 (Convenția NU 15.09.2005) and ratified in 2006 (Lege 438/27.11.2006).

[13] Art. 21(1)(e) refers specifically to "property forming part of an exhibition of objects of scientific, cultural or historical interest and not placed or intended to be placed on sale." For more details on the implications of the Convention, see Chechi 2015; Pavoni 2020.

[14] In accordance with national law, the Ministry of Culture is legally mandated to represent the Romanian state in domestic and international relations concerning mobile cultural heritage: Lege 182/25.10.2000, Art. 6(3).

[15] A letter of comfort does not carry the same legal weight as a formal guarantee of immunity from seizure, but it ensures that the government of the borrowing state will do everything within their power, in accordance with domestic and international law, to protect the artifacts on loan from seizure. See van Woudenberg 2010, 189.

Insurance and transport

Another challenge was ensuring the high-value artifacts loaned for the exhibition. The most suitable solution would have been to request a state indemnity from the Romanian Government, which would have discharged the organizing institution from the costs of the exhibition insurance. Under current legislation, the Ministry of Culture is authorized to issue, on behalf of the Government and with the approval of the Ministry of Finance, a certificate of guarantee. This document serves as proof for the Government's assumption of liability for damages suffered by foreign cultural heritage objects temporarily located on the territory of Romania.[16]

Unfortunately, due to organizational and time constraints,[17] it was not possible to apply for state indemnity. Thus, the only viable option was to obtain a "nail-to-nail" insurance policy. The low number of large-scale international exhibitions organized in Romania has also had a noticeable impact in this regard. The major impediment was that no local insurance company could insure such valuable artifacts. In the end, after prolonged negotiations, the insurance was concluded with a foreign company.

The transportation of the loaned objects was less complicated, although Romanian legislation on the matter is also vague.[18] The artifacts were transported by professional companies approved by both the lending and borrowing museums, with armed escort provided by the Romanian Gendarmerie while on Romanian territory.

Managing unforeseen impediments

It may be useful to provide an overview of potential unpredictable situations we encountered, without being exhaustive, that required time buffers, resources, and prompt responses during the working process. Highlighting these pitfalls may help avoid them and improve the implementation of similar cultural projects:

- Expiration of documents (e.g., letters of comfort) due to governmental bureaucracy and financial unpredictability;
- Revisions of supporting documents (e.g., justification memoranda) for bureaucratic reasons, sometimes up to four times, each requiring approval from the Ministry of Culture;
- Unforeseen situations, such as overlapping election campaigns, rendered part of the exhibition title politically sensitive. This required changing the title and adjusting the promotional campaign, further extending working time, and increasing demands on the involved teams;
- Unexpected technical issues, such as a specific wall paint that complicated the transfer of texts onto walls (including ancient quotations and a large map), extending working time and human resource requirements.

Our team succeeded in overcoming these challenges not within the initially allocated timeframe, but by dedicating additional hours from their personal time. This was possible thanks to the goodwill and professionalism of our collaborators, who contributed the same

[16] HG 1121/29.11.2000, Art. 3.

[17] The state indemnity has to be requested by the lending institution at least with 60 days before the cultural objects enter on the territory of Romania: HG 1121/29.11.2000, Art. 12(1).

[18] Norme 18.12.2003, adopted by HG 1546/18.12.2003.

level of effort without additional remuneration in order to ensure a high-quality outcome. Nevertheless, these impediments led to a delayed opening date, reduced the impact of the promotional campaign, and ultimately shortened the exhibition's duration.

Requirements in conservation

From a conservation perspective, a few aspects must be highlighted when building the exhibition. The first is communication among exhibition curators, architects, and designers to select and compromise on the best solutions for displaying the objects, while meeting the requirements of the lending museums. The display requirements had to be balanced with the curators' concept and the architects and designers' exhibit criteria. Moreover, a fundamental prerequisite was the adherence to all security regulations mandated by both national legislation and the project's external partners. This requirement was fulfilled through the implementation of display cases constructed from tempered glass, each equipped with an individual sensor system. These measures supplemented the building's comprehensive security infrastructure, which included continuous armed security personnel and a video surveillance system.

The closed showcases were constructed at a safe distance from heating and air-conditioning systems and from exterior walls and windows (which had been previously blacked out to avoid direct sunlight). All of the objects were displayed in closed cases, in line with the exhibition's concept, but mainly for conservation reasons. The closed, sealed, individually secured showcases provided a more stable and controllable microclimate. Given that objects loaned from the museums in Budapest and Vienna required specific display conditions, particularly a lower, stable relative humidity, paired with a correct temperature, a sealed showcase provided a controlled microclimate. The climate inside the cases was stabilized using climate-control products (museum-grade silica gel) placed in a holding area designed within the showcase (a passive climate system was in place). Therefore, the exhibition conservator was able to monitor the interior relative humidity and temperature throughout the exhibition.

Conceptual and theoretical framework

This section outlines the main theoretical premises that informed the curatorial approach of the project, situating it within contemporary debates on participatory and critical museology.

History exhibitions are powerful tools for communication. They tell stories about the past not just through words, like a history book or a lecture, but through objects, original artifacts, that carry meaning and memory.[19] The role of the curator and implicitly of the museum changed in later years: the museum/curator is no longer just a keeper of artifacts, but through exhibition, the museum becomes a mediator, enabling various contexts to be revealed for the public, and the curator becomes the generator of ideas, with a certain specific vision on the presented subject.

This mediation suffered a radical shift once the interactive exhibitions occurred. As Tiina Roppola mentions, the visitor was no longer just a detached observer, but the exhibits invited an active discovery and involvement, with the help of hands-on, different gadgets,

[19] Lord 2002, 15–19.

sound, and movement.[20] Simultaneously, education became the museum's central mission, with addressing the needs of the public gaining increasing significance.

One can say that museums became more liberal and inclusive, transforming from a conservative institution and an authoritarian source of knowledge with a dominant single-point-of-view narrative to a critical museum, as Piotrowski puts it so well.[21] When referring to museums, he classifies them into three types: museum-as-temple – conservative; museum-as-entertainment – populist; and museum-as-forum – democratic.[22] In many cases, the new type of museum becomes a platform for critical reflection and the exchange of ideas; visitors, with their own experiences, become active participants in the interpretation process, and the museum, through exhibitions, becomes a place of dialogue, fostering a critical way of thinking. A major turning point in contemporary museology was marked by the 2022 ICOM definition of the museum, which redefined museums not merely as repositories of objects but as ethical, inclusive, and sustainable institutions that serve society through education, critical reflection, and community participation.

As David Dean mentions, there are several ways of approaching an exhibition. Some curatorial choices focus purely on the aesthetic presentation of objects, offering no interpretive information and allowing the artifacts to speak for themselves.[23] Other approaches prioritize the communication of information, where the objects may be secondary or even absent, and the emphasis lies in conveying context, narrative, or data. Between the two extremes, there are numerous ways of approaching a historical subject that reflect a new way of thinking about an exhibition, no longer focused on an aesthetic display of objects, but also on interpretation and meaning, including a narrative that facilitates learning and passing on knowledge. These types of exhibitions go beyond simply presenting information – they create immersive experiences that allow visitors to connect emotionally and intellectually with history, keeping in mind that authentic objects have a unique ability to capture attention and spark curiosity. They tell personal, specific stories that make historical events feel more real, offering people the chance to learn about distant events and to immerse themselves in the past through narrative. Roland Barthes observed that narrative "is present at all times, in all places, in all societies; indeed, narrative starts with the very history of mankind; there is not, there has never been anywhere, any people without narratives; all classes, all human groups have their stories."[24]

What is the purpose of the curator? When talking about the act of art curating, Obrist stated that "it is simply about connecting … the task of curating is to create junctions, to allow different elements to touch."[25] To some extent, this statement applies to all curators. This means the curator's job is to connect all the pieces of the puzzle and create the narrative. Curatorial choices influence not only what is on display but also the kind of information and atmosphere the exhibition will transmit to the audience. Works like Richard Watermeyer's

[20] Roppola 2012, 18–19.

[21] Murawska-Muthesius, Piotrowski 2015, 42; Wróblewska-Trochimiuk 2019, 42.

[22] Murawska-Muthesius, Piotrowski 2015, 6.

[23] Dean 2002, 4.

[24] Barthes 1977, 79. On the same line, in the foreword to the essay book *El viaje a la ficción* (*A Flight into Fiction*), published in 2008, the Nobel Prize-winning novelist Mario Vargas Llosa emphasizes the transformative power of storytelling in the history of humankind.

[25] Obrist 2014, 1.

introduce the concept of post-museum as a model for experiential learning and public engagement with science.[26] With the help of new technologies, museums created space for diverse voices and collaborative knowledge construction.[27] The exhibition became more and more a space for communication but also for non-formal learning and participative museal experiences, taking into consideration multiple individual ways of absorbing knowledge.

There are several theories about museum experiences and how visitors approach exhibitions. In the 1990's, John H. Falk and Lynn D. Dierking developed a theory about how people experience a museum identifying three key components: personal context (knowledge, personal motivation, learning style, emotions, etc.), sociocultural context (cultural background, context of visit, etc.), and physical context (exhibition layout, texts, light, sound etc.).[28] If museums design an experience that responds to all these directions, it will influence meaningful learning for the visitor.[29] This theory was further developed and analyzed in other studies, some of which sought to confirm and extend it to find the best recipe.[30]

At the same time, nowadays curators seldom discuss the role of museums as mediators in contemporary societies dominated by globalization and cultural diversity. They approach history not only from a majority's point of view, but also from a transcultural, multilingual, and intercultural perspective.[31] Visitors learn about the exhibited subjects, but they also develop critical thinking, and the communication is two-way – experts–visitors, visitors–experts, but also visitors–visitors.[32] By encouraging visitors to interact with the objects on display and with one another, the exhibition becomes a platform for dialogue and interpretation.[33] In this context, one must mention the concepts Nina Simon promotes about "participatory museums," in which visitors can create, share, and connect with one another around the content of an exhibition.[34] The purpose of each exhibition, especially a history exhibition, is to make people better understand their present, to make them analyze and absorb contemporary events through a historical filter. As Maria Piacente states: "understanding human history is necessary for an incisive awareness of the present and museums of archaeology and historic sites can present and interpret the past more vividly than a textbox or a lecture," at the same time offering multiple perspectives.[35]

One of the main preoccupations of museums in recent years has been engaging younger audiences through the integration of new technologies and the potential of digital tools to enhance the museum experience for younger generations. Digital tools such as virtual reality (VR), augmented reality (AR), immersive environments, artificial intelligence (AI), online platforms, and gamification, chatbots, and holograms are being used to make cultural heritage more accessible, interactive, and appealing.[36]

[26] Watermeyer 2012, 15.
[27] Watermeyer 2012, 17.
[28] Falk, Dierking 1992, 2.
[29] Falk, Dierking 1992, 5–7.
[30] Falk, Storksdieck 2005, 117–143.
[31] Ianniciello, Quadraro 2014.
[32] King 2002, 9.
[33] Wróblewska-Trochimiuk 2019, 50.
[34] Simon 2010.
[35] Piacente 2022, 6.
[36] Damala, Marchal, Houlier 2007; Aljas et alii 2025; Styx 2024.

Implementation directions

A strong narrative – built on a solid scientific framework

The exhibition *Forgotten Warriors and Eternal Adornments* invites a shift in perspective: the Migration Period, which is still often regarded as a dark age in the public opinion in Romania, should rather be seen as a time of transition between Late Antiquity and a new age, a catalyst in the formation of medieval European states. This early Migration Period, between the fourth and sixth centuries AD, though marked by military conflicts, was also characterized by ethnic diversity and intense cultural interaction. We set out to present the world of the barbarian elites through the most significant archaeological discoveries, which highlight major historical and archaeological phenomena that have influenced the evolution of Europe and represent a shared cultural heritage for the European community.

Exhibitions can be broadly categorized into two types: research-based, which prioritize scholarly inquiry, and market-driven, which focus on audience and commercial viability.[37] The exhibition project was conceived at the intersection of scientific research and public interest, aiming to combine academic insight with broad appeal. Its concept brings together archaeology, numismatics, and art history to offer a comprehensive and engaging perspective. Together, and primarily drawing on the expertise of our specialist in Migration Period archaeology and our numismatist, we re-envisioned the exhibition – maintaining its scholarly rigor while refining the communication strategy to better engage contemporary audiences. At the same time, it was beyond doubt that the treasure discovered at Şimleu Silvaniei – never exhibited in Romania before – alongside other contemporary hoards, such as the so-called *The Hen with Chickens* from Pietroasa and the princely graves from Apahida, would contribute to the exhibition's appeal. The splendor and uniqueness of these objects were expected to ensure both public interest and marketing success.

The concept is research-based, and given the exhibition's archaeological focus – centered on treasures and archaeological finds – it was structured chronologically, facilitating a coherent and systematic exploration of the theme's evolution over time. The objects on display were organized accordingly, grouped by archaeological context, such as archaeological excavations or accidental discoveries, to further enhance historical clarity and narrative continuity. The display of the artifacts was both chronological and thematic, meaning it followed a certain evolution within the barbarian societies reflected in their artifacts and the symbolism behind them.

The primary purpose of the concept was to present a strong narrative, enabling the public to engage more deeply with the subject of the exhibition, to understand the context of these splendid artifacts, and to discover – through an interactive experience – this otherwise complex and lesser-known part of the history of the Middle Danube region.

The curators intended to interrogate the notions of migration, migrants, barbarians, alterity, and acceptance, while also demonstrating, to some extent, that an archaeology exhibition can remain relevant to contemporary experience. At the same time, the project sought to fulfill an educational mission by exploring diverse strategies to engage and reach its target audiences. The 2022 ICOM definition calls for museums to be inclusive, accessible, and socially relevant. The exhibition operationalized these values through trilingual and multi-modal communication, accessible digital tools, and the explicit connection between

[37] Piacente 2022, 18.

ancient and contemporary migrations, framing the museum as a platform for dialogue and social connection.

Exhibition structure

Starting from its intended purpose, the exhibition was structured around several major themes, each presented in a dedicated hall or room with custom-made designs tailored to the subject matter and the specific requirements of the exhibited objects. The themes included: *Migrations*, *The Hun Age*, *The First Treasure of Șimleu Silvaniei*, *The Second Treasure of Șimleu Silvaniei*, *Discovery Room*, *Elites*, *Immersive Space*, *Identities*, *The Gepidic Era*, and *Dear Visitor!* (Fig. 3).

As migration was one of the central themes connecting the past and present (see below), the exhibition was framed by two rooms dedicated to this topic. The "Migrations room" featured two projections: one focused on contemporary migrations (Fig. 4), and the other presented relevant data about the Migration Period (Fig. 5). The aim was for visitors to understand that migration is a lasting phenomenon, driven by similar causes across different historical periods, and that it remains relevant to their own lives. By highlighting the human dimension of these movements, the exhibition emphasized that whether we are discussing the sixth century or today, the subject is ultimately about people, communities, and everyday life. This approach encouraged visitors to see migration not merely as a historical or statistical phenomenon, but as a shared human experience that continues to shape societies and cultural identities.

This served as a useful introduction, allowing visitors to enter the atmosphere of the exhibition and learn about the historical context of the artifacts on display.

Except for two rooms, each space focused on a single central theme. The exhibited artifacts were carefully selected based on these topics. Initially, a longer list of objects was compiled, which was subsequently reduced according to the availability of the selected items.[38] Almost every room featured one or more key artifacts or assemblages displayed in a central showcase to capture the attention of the visitors and offer a discussion topic (Fig. 3).

[38] In addition to the Kunsthistorisches Museum in Vienna and the Hungarian National Museum (Magyar Nemzeti Múzeum) in Budapest, twelve museums from across Romania contributed loaned objects to the exhibition. These included: the National History Museum of Romania (Muzeul Național de Istorie a României), Bucharest; the National Museum of the Union in Alba Iulia (Muzeul Național al Unirii Alba Iulia); Buzău County Museum (Muzeul Județean Buzău); the Institute of Archaeology and History of Art (Institutul de Arheologie și Istoria Artei), Cluj-Napoca; Țării Crișurilor Museum (Muzeul Țării Crișurilor), Oradea; Prahova County Museum of History and Archaeology (Muzeul Județean de Istorie și Arheologie Prahova), Ploiești; Satu Mare County Museum (Muzeul Județean Satu Mare); Brukenthal National Museum (Muzeul Național Brukenthal), Sibiu; Curtea Domnească National Museum Complex (Complexul Național Muzeal "Curtea Domnească"), Târgoviște; Mureș County Museum (Muzeul Județean Mureș), Târgu Mureș; the National Museum of Banat (Muzeul Național al Banatului), Timișoara; and the History Museum of Turda (Muzeul de Istorie Turda). Last but not least, a large number of artifacts were exhibited from the collection of the National Museum of Transylvanian History in Cluj-Napoca, as the host institution. In essence, the vast majority of the important funerary finds and treasures from the territory of Romania from the fifth century were brought together and displayed. We wish to take this opportunity to express our sincere appreciation for the partner institutions' highly professional collaboration and openness to engaging in this project.

In the case of the Șimleu Silvaniei treasure, the most spectacular and, at the same time, most important pieces were chosen: the gold chain with miniature pendants from the first treasure (Fig. 6) and the large imperial brooch with an onyx from the second (Fig. 18). Both objects are unique and have no exact parallels. For the remaining pieces comprising the second treasure from Șimleu Silvaniei, we adopted an individual display format, intended to offer visitors the opportunity to appreciate each object in its own right (Figs. 7–8). While these items together form a unified assemblage, presenting them collectively would have risked diverting visitors' attention, thereby diminishing the visibility of the exceptional details that distinguish each object. It is also important to note that the artifacts were on loan from Budapest until July, and in anticipation of their return to the Hungarian National Museum, the project team had planned to install holographic representations of the original objects. For this reason, with the owners' agreement, the artifacts were fully scanned before being placed in the display cases and before the official opening of the exhibition by a specialized team from the Technical University. However, due to objective constraints, this project could not be implemented as intended. Instead, we produced photographic reproductions of part of the collection, which became the solution adopted until the end of the exhibition.

In the "Elites' room," which focused on the leaders of society and the power centers of the fifth century, the famous Pietroasa treasure (Fig. 9) and finds from the two princely graves from Apahida were highlighted in two central showcases. By contrast, in the room dedicated to the Hun Age, which aimed to outline the historical and archaeological context of the Șimleu Silvaniei treasure, a different curatorial approach was adopted. Although there were several specific artifacts exhibited (e.g. a diadem or metal cauldrons), we chose to emphasize the practice of artificial cranial deformation, illustrated with three deformed skulls – a typical phenomenon of the period (Fig. 10). Finally, the room titled "Identities" aimed to underline the complexity of the fifth century society as reflected in funerary finds, emphasizing the multiplicity of interwoven identities (cultural, ethnic, social, religious etc.) and traditions, marked by intense social competition and widespread fashion trends. Here, two representative burials (the female grave from Turda and the male grave from Sângeorgiu de Mureș), reflecting different cultural traditions, were selected and exhibited in the center of the room, arranged as they were discovered during archaeological excavations (Fig. 11).

Two rooms – one dedicated to archaeology (Figs. 14, 22), the other featuring an immersive projection (Fig. 12) – did not include any exhibited artifact. Beyond their educational and immersive purposes (see below), they also served as recreational spaces, offering visitors an opportunity to relax and assimilate the information they had gathered. The exhibition display was developed in close and ongoing collaboration with architects and designers, who contributed to all the crucial elements that shaped the final appearance of the exhibition.[39] We worked with our conservators even more closely. They guided us in ensuring that all necessary conditions for the safe display of the objects were met. The showcases, lighting, supports, labels, animation concept, and video productions were the result of a collective effort. They also served as a space for educational activities that completed the visiting experience (see below).

[39] See the contribution of Camelia Sisak in this volume.

Connections between past and present

Focusing on the theme of migration. We started the project with several core questions, and one of the most important was: how can an exhibition about fourth-to-sixth-century migration be made relevant to today's world? Although these extraordinary exhibited treasures are well known among specialists worldwide, the broader context of the Migration Period – and the significance of these artifacts within it – remains relatively unfamiliar to the general public. Our primary concern was that visitors might overlook the historical importance and contemporary relevance of these extraordinary objects, along with the powerful messages they carry about the people who made and used them. Therefore, a central aim of the exhibition was to make this subject accessible and meaningful to a wider, more diverse audience.

The curators aimed to create connections between contemporary life and the exhibition's subject in multiple ways. On the one hand, we sought to establish a shared foundation by identifying common experiences, themes, and correspondences between the present and the past. In the course of several discussions with the extended team, including the museum's management, Felix Marcu put forward an important suggestion to link historical and contemporary migration phenomena.

Contemporary migration is a relevant and familiar theme, reflecting global challenges and human experiences in today's interconnected world. Assuming that visitors should engage personally with the exhibition's theme, we sought to establish a clear link between past and present, emphasizing that migration is a longstanding phenomenon and that the motivations behind human movement have remained constant throughout history, linking us to the Migration Period. In our curatorial approach, we emphasized that migration is not merely a historical event, but an ongoing human experience. We intended to facilitate a connection between contemporary audiences and the communities represented in the exhibition – portraying them not as distant historical figures, but as real people who faced challenges and found solutions that, in many ways, resonate with those encountered today.

In order to do this, we partnered with the Mediafax press agency, and we started our narrative from nowadays, displaying a series of photos showing contemporary people on the move (Fig. 4), aiming to understand the reasons behind their migration – reasons that can be similar to those that drove migrations in the fourth and fifth centuries. The photographs document various forms of migration and humanitarian crises over recent years, capturing people on the move due to economic, climate-related, or conflict-driven factors, in locations such as Romania, the USA, Somalia, Afghanistan, Ukraine, Turkey, and Lampedusa.

Subsequently, an animated map was presented, tracing the movement of populations in the fourth to sixth centuries AD in a chronological sequence (Fig. 5). The main purpose of this complex map was to provide visitors with historical context and, given the period's complexity, to simplify and condense all the information, while also showing the reasons behind this migration phenomenon and the mechanisms that led to the production of the extraordinary objects on display. We chose to communicate through animation because a subject this complex would have been rather difficult to convey in written form without losing the viewer's interest. At the same time, we believed that showing the map and illustrating population movements – supported by a color-coded system and a direct,

engaging narrative – would capture the audience's attention and make it easier for them to understand the key information and context of this period. We adopted a minimalist graphic approach to present information clearly and directly, reducing potential distractions while adding an artistic touch.

By starting with this parallel, we hoped visitors would accept our proposal and receive the necessary information to connect with the exhibits and their story and to have a basic context for the exhibition. Throughout the exhibition, we identified other common elements between the contemporary world and the past, by underlining the similarities between ancient tools used for working the land or wood, scissors for cutting sheep wool, weapons, or other everyday objects, elements that visitors could easily recognize in the pairs of pendants decorating the spectacular chain discovered in Șimleu Silvaniei, now hosted by the Kunsthistorisches Museum in Vienna. We returned to the subject inside the yurt, an immersive space, placed near the end of the exhibition, where we presented with the aid of animation some of the activities performed with the help of these tools, so the information would remain imprinted in the minds of our visitors, while at the same time offering an environment of intimacy and connection with the living space of the barbarians (Fig. 12).

In presenting the ritual of cranial deformation, a practice associated with the Huns and subsequently adopted by populations influenced by Hunnic culture, the aim was to contextualize this form of body modification by drawing parallels with other historical and cultural practices, such as foot binding in Chinese tradition, the use of corsets to reshape the female waist in Western societies, and the contemporary popularity of tattoos (Fig. 13). The exact reasons why the Huns practiced artificial cranial deformation remain uncertain; however, much like tattoos today, it was likely a means of expressing identity.

Participatory projects are most effective when they invite people to contribute in meaningful ways. We aimed to bring the exhibition into a contemporary context, helping the public find common ground with people from the past, bringing them closer and revealing their shared humanity. We also hoped to make the exhibition relevant to the present while helping visitors connect emotionally with people from the past. These interventions demonstrated that participation can take multiple forms, critical reflection or personal expression, while reinforcing the exhibition's central theme that migration is both an ancient and a contemporary phenomenon.

At the end of the exhibition, we returned to the present day by creating a space where visitors were invited to participate directly, to create content and meaning through an interactive installation (Fig. 15). While acknowledging the historical and ongoing significance of migration, this part of the exhibition was designed primarily to center the visitor's experience, encouraging reflection and emotional engagement. Our approach was based on the idea that many of us have friends or family members who, for various reasons, have built new lives abroad. Whether driven by economic opportunities, education, adventure, or war, migration is a part of our everyday experience.

To encourage reflection on migration, alterity, and acceptances, visitors were invited to participate in a symbolic activity using a specially designed two-part postcard (Fig. 16). One part, featuring an image, was meant to be taken home, allowing participants to write a message to loved ones who are far away, symbolizing enduring connection across distance.

The second part remains at the museum, where visitors are asked to indicate the location to which their loved ones have moved. Together, these contributions form a collective map of migration, illustrating the global scale of the phenomenon and the strong bonds that continue to unite people across borders.

Scholarly debates on the "critical" and "participatory" museum (Piotrowski, Simon) emphasize the shift from museums as temples of authority to democratic forums of dialogue. In the exhibition project, this principle was enacted through participatory installations such as *migration postcards*, interactive family games, and the fictional character Rosamunda, which offered an alternative voice to academic discourse and encouraged emotional identification.

In line with the new museum definition adopted in Prague (2022), we believe that the acceptance of otherness can only be achieved through understanding, knowledge, and empathy. By engaging with the lives and stories of people from the past, museums provide a unique context for reflecting on human differences, but also similarities, and for encouraging acceptance and mutual respect in the contemporary world.

Archaeology is a relatively young discipline that has gained increasing significance over the past one and a half centuries. Most artifacts from the distant past come from archaeological excavations, and it is also the archaeologists who interpret them. Thus, archaeology serves as a living link between past and present, providing a frame for understanding long-forgotten periods of human history. Throughout the exhibition, this link was deliberately emphasized and presented in different forms.

In the "Discovery room," the stories of the most spectacular treasures and the circumstances of their discovery were narrated using animation in a production reminiscent of early cinematic works (Fig. 14). At the same time, adults were invited to listen to the reflections of Felix Marcu, archaeologist and museum manager, who shared the specialist's perspective on the importance of archaeological discoveries. He emphasized the significance of the data archaeologists gather in the field and, at the same time, the extent of the information that can be lost when such discoveries are made without the involvement of professionals.

The room dedicated to identities preserved the atmosphere of an archaeological excavation, featuring two human skeletons displayed side by side, with the entire funerary inventory placed in the exact place of discovery, amid a setting resembling a wheat field (Fig. 11). The display was designed to immerse visitors in the authenticity of the discovery. A facial reconstruction of one of the individuals offers a powerful perspective on the importance of archaeological excavations carried out by specialists (archaeologist and anthropologists), highlighting how valuable they are in uncovering and interpreting information about the past (Fig. 13). In this context it is worth emphasizing that the entire exhibition seeks to establish a direct dialogue with the visitor, making them an active part of the experience.

Layers of learning: an experience for everyone

The educational mission of the exhibition was one of the main purposes. Thus, the exhibition content was designed to be both engaging and comprehensible for diverse

visitors, acknowledging that each individual perceives the experience differently, inspired by Lukáš Najbrt and Jana Kapounova's ideas about personalized tours, but also by other museum visiting experiences.[40] To accomplish our mission, we needed to answer a key question: how could we communicate the importance of these archaeological discoveries in an accessible and comprehensible way? Our answer was to offer layered information, delivered at varying levels of complexity, using multiple forms of communication, adapted to different types of visitors and their specific needs: text, graphics, storytelling, audio, video, animation, and hands-on.

Echoing Roppola's and Piacente's perspectives, the curatorial team sought to go beyond mere artifact display and create multiple layers of learning experiences accessible to school and university groups, families, and adult audiences alike. Acknowledging both the complexity of the topic and the general lack of public knowledge about this period, we approached it from different angles to make it more engaging and comprehensible for a wider audience – from an "archaeological box" and a treasure hunt for children, to vintage movie-style narratives for teenagers, in-depth explanations by specialists for history enthusiasts, and the story of Rosamunda for those who prefer learning through storytelling. A key aim was to ensure that historical knowledge was delivered in a friendly, accessible way, not only to those with a background in history but also to visitors seeking to experience it as a narrative.

A growing number of contemporary museums have adopted digital technologies that enable personalized visits, incorporating visitor profiling and intelligent guidance systems to enhance the overall experience. Institutions such as the Louvre or Rijksmuseum offer mobile applications that generate personalized tours based on the visitor's interests, available time, and level of knowledge. The British Museum uses smart tours and augmented reality tools to adapt information in real time, while the Smithsonian Institution employs artificial intelligence to analyze visitor profiles and tailor educational content. In Romania, some museums like the Grigore Antipa National Museum of Natural History,[41] the ASTRA Museum in Sibiu,[42] or Muzeon – a private Jewish history exhibition in Cluj-Napoca[43] – integrate interactive displays, thematic digital routes, and games that adapt to different audiences, ages, and educational needs. Unfortunately, we did not have the resources to employ such advanced technologies. Nonetheless, the exhibition integrated digital layers in more accessible forms: a narrative audio guide available on visitors' phones and on the museum's devices, animated sequences illustrating the Migration Period, and an animated map that contextualized archaeological finds within broader historical and geographical frameworks. The application used for Rosamunda provided us with important data, including monitoring our public, their language preferences, their interest in our topics, and the time they spent on the device. These solutions, though modest compared to high-end VR or AR installations, AI, or dedicated applications, proved effective in engaging younger audiences, stimulating curiosity, and complementing the traditional display of artifacts with dynamic modes of learning.

[40] Najbrt, Kapounová 2014, 18.

[41] https://antipa.ro/jocuri/.

[42] https://muzeulastra.ro/muzeul-astra-app/.

[43] https://muzeon.ro/en/audio-guides/.

In line with global efforts to redefine museum accessibility, the exhibition was designed to be inclusive and multisensory, featuring trilingual interpretation (Romanian, English, and Hungarian) and accommodations for visitors with hearing or visual impairments, providing information in both audio and written formats. This inclusive approach enabled the exhibition to reach a broad audience and reinforced the museum's educational and social mission.

We also considered that some visitors assimilate information more effectively through auditory channels, while others prefer visual modes of learning. To balance accessibility and readability, we prioritized larger fonts on the panels and provided full texts digitally via QR codes. Romanian and English were selected for display due to their broader communicative reach, while all three languages (Romanian, English, and Hungarian), and later German, were made available online. Subsequent usage data from the QR platform confirmed the relevance of this decision, indicating that approximately 50% of users accessed the Romanian version, 30% the English version, and 20% the Hungarian version. For visitors without access to a smart device, we provided tablets and headphones, ensuring their experience was equally complete and inclusive. This choice also proved valuable for visitors with different disabilities. Those with hearing impairments could access the written material, while visitors with visual impairments could benefit from the audio versions of the information. Unfortunately, the lack of financial resources and limited time prevented us from developing a broader range of materials specifically tailored to these visitor categories.

Moreover, in line with Watermeyer's concept of the post-museum, *Forgotten Warriors and Eternal Adornments* functioned as a pedagogical space where knowledge was co-constructed: experts, visitors, and students interacted through workshops, guided tours, and digital media, transforming the exhibition into a site of collaborative learning. Following Simon's framework, the exhibition integrated several participatory components designed to transform the audience into co-authors of meaning.[44] Although the public was not involved in the curatorial process, their participation proved essential to the success of some initiatives, such as the interactive postcard installation, which invited visitors to reflect on their personal or familial experiences of migration. By completing the exhibition with specialized guided tours and a range of educational programs, the exhibition intended to establish a space for dialogue that could resonate with diverse audiences.

In line with Falk and Dierking's contextual model of learning, we explicitly addressed the personal, sociocultural, and physical dimensions of the visitor experience. The personal context was considered through layered learning pathways tailored to different ages and interests; the sociocultural context through multilingual and participatory communication, trilingual communication, and participatory activities; and the physical context through immersive scenography and multisensory displays.

Basic information: texts and graphics – a unified concept. Textual information was employed to deliver essential information about each archaeological discovery or treasure, keeping the content condensed to the essentials – offering just enough context and basic information about the exhibits. The curators aimed to make it visitor-focused: accessible, engaging, and communicative. The text was written in clear, straightforward

[44] Simon 2010, chapter 4.

language, often addressing the public directly, with a lower level of linguistic complexity to ensure it would be well received by visitors as young as 12. The goal was not only to inform but also to provoke thought and inspire personal reflection. Recognizing that our audience, particularly younger visitors, often prefers alternative forms of communication, we deliberately chose to present information through diverse media, with text being a less favored method. Nonetheless, we believe the textual content we included was accessible and engaging for the average visitor. By posing questions, encouraging critical thinking, and acknowledging the ongoing mysteries and debates surrounding the exhibited objects, the texts succeeded in making the exhibition both stimulating and inviting. All texts were delivered in two languages on the panels (Romanian and English) and were accessible via a QR-code application that contained all the information presented in the exhibition, also in Hungarian (Fig. 9).

Graphic illustration complemented the textual content, featuring details inspired by decorative motifs found on the artifacts, adapted and enhanced for clarity and ease of recognition. In some cases, the exhibited objects were small and difficult to analyze in detail, so the graphic elements played a crucial role in visually supporting the artifacts and drawing attention to the features we considered most important (Figs. 9, 17). Additionally, graphic elements were used to illustrate the execution techniques of more complex jewelry items, to show how such pieces were worn, and to map the distribution of artifacts. As David Dean mentioned, graphics can be used to tell stories, engage visitors in mental activities, and activate the human brain by asking questions and providing demonstrations.[45]

The graphic elements were also used for educational purposes, illustrating how certain displayed objects would have been worn (Figs. 18–19). To showcase the pieces effectively, a simplified graphic style was adopted, designed to suggest specific elements rather than serve a purely decorative purpose. The overall display was intentionally kept minimal and monochromatic, ensuring it did not compete visually with the exhibited objects.

An immersive, theatrical approach and storytelling: the birth of Rosamunda. In addition to the spectacularity of the artifacts displayed in a carefully designed environment that evokes the mystery and sense of discovery characteristic of archaeology, and often linked to the allure of treasure hunting, we have found that one of the most effective strategies for engaging a younger audience is through storytelling. Through narrative, audiences are introduced to ancient populations and their ways of life.

Artifacts have an inherent ability to fascinate people; they carry the imprint of the civilizations that created them. Nevertheless, what truly inspires wonder and emotional engagement are the stories these objects embody. As Anna Faherty noted, museums are institutions that collect and share human experiences, and it is the stories associated with these experiences – stories with which one can identify and determine an emotional connection.[46]

In what concerns the perspective, in many cases, information about "barbarian" peoples was preserved in the writings of others, the population who encountered them, fought or made alliances with them, traded or had diplomatic relations. In an alternative approach, the project sought to give the "barbarians" a voice and present their story from

[45] Dean 2002, 31.

[46] Faherty 2025.

their own perspective. Hence, we developed a virtual character, Rosamunda, whose story visitors could hear or read via a digital platform accessed through a QR code, available in three languages.

The exhibition aimed to build an emotional bridge between the Migration Period and contemporary audiences, aligning with the narrative strategies emphasized by Dean and Faherty. Rosamunda speaks from a distinctly female position, connected to her community and awaiting the return of the warriors, while also reflecting the experiences of populations confronted by conquest. The other two characters offer complementary viewpoints: Priscus represents the Roman perspective, whereas Rosamunda's grandson gives voice to the warrior himself.

Drawing on narrative theory (Barthes, Dean, Faherty), which highlights storytelling's universal power to engage audiences, the voices of Rosamunda, Priscus, and Elemund together created a multi-layered narrative that linked Migration Period artifacts to human experience, transforming objects into gateways for emotional engagement and critical reflection.

Creating a fictional character is not a new approach. In fact, fictional storytelling has already been used in transmedial experiences, such as the one at the Moesgaard Museum in Aarhus, which some members of our team had the opportunity to visit during an Erasmus Plus shadowing program. However, there are significant differences between the exhibition project and the experience in Aarhus. Our use of technology and digital tools was more limited; we primarily used the character of Rosamunda to provide a general context for the exhibited pieces, basing her on historical texts rather than on the artifacts themselves. Moesgaard Museum offers a more complex and immersive experience. As Susana Tosca notes, based on the research of McCarty and Wright,[47] a holistic framework of experience integrates sensorial, emotional, compositional, and spatial-temporal dimensions, which characterizes the transmedial experience: "Key to this approach is the idea that there is a user at the center of a complex network of stimuli which coalesce into a combined experience that is as much anchored in the past as in the present."[48] We followed the same core ideas; we intended to evoke a particular atmosphere, but we relied more on the audience's imagination and less on reconstructions and scenography elements.

We chose to tell the main story through a friendly female figure (Fig. 20) for several reasons, including the fact that we wanted our visitors to have an insight into how their society was organized, how they lived, and what they believed, to understand better both their identity and the mechanisms that shaped their civilization and cultural heritage. Rosamunda was plausible, even if she was not a real historical personality. She was built based on historical facts inspired by the writings of Jordanes, Priscus, Ammianus Marcellinus, and other ancient authors who encountered these populations. She addressed the visitors directly, telling – through the voices of well-known actors – the saga of three generations, her story continued by her grandson, Elemund, and completed through a character modeled on Priscus – a diplomat who lived among the Huns – and his firsthand accounts of this population.

[47] McCarthy, Wright 2004.

[48] Tosca 2016, 3.

Alongside the historical information presenting the exhibited artifacts and the context of their discovery, Rosamunda, in her role as the exhibition guide, offered an additional layer of interpretation, another way to visit, as well as an opportunity to explore historical realities unconventionally and to learn about the populations who lived during the fourth to sixth centuries and the context in which they evolved. Rosamunda, together with the animated projection in the Hun Age room depicting horsemen in motion (Fig. 10) and the yurt immersive installation (Fig. 12), was designed to immerse visitors in the world of these populations. When creating the texts for Rosamunda and the other two characters, we were mindful of human emotions and the power of storytelling to evoke scenarios visitors could relate to. As Dean David suggests in his book, "When writing text, labels, and audio narration, use language that evokes mental imagery. Without becoming trite or offensive, use word pictures instead of technical language."[49] We followed this approach, aiming to engage the audience not just intellectually but emotionally, using vivid, accessible language to bring the characters and their world to life.

In some cases, the characters described objects that visitors would later encounter in the exhibition, offering explanations in advance of what they would see. This created a sense of anticipation and gave visitors the feeling that they were engaging with something already familiar.

Knowledge at an advanced level: Ask the Expert! For analytical visitors seeking more in-depth content and historically rich information, we developed a section titled "Ask the Expert!" (Fig. 21). This component of the exhibition included contributions from the project's specialists – archaeologist Alpár Dobos – who responded to a series of anticipated questions. Some of the material was made available via an interactive touchscreen, where users could select specific queries and view recorded video responses from the experts. In other instances, the specialist – Ágnes Găzdac, an expert in numismatics – presented specific topics through direct-address video lectures, offering structured explanations intended to clarify potential uncertainties. They discussed several interesting topics that offered insight into the subjects at hand, presenting what is already known, acknowledging that unanswered questions remain, and recognizing the limitations of scientific analysis in resolving specific historical dilemmas.

By implementing this format, the curators aimed to address the needs of visitors with more advanced prior knowledge, as well as university students with a scholarly interest in the subject. The intention was to provide them with a meaningful starting point for further academic exploration.

The adventure of discovery: activities for the youngest. For the younger visitors, we prepared several engaging elements designed to capture their imagination – animated sequences featuring Hun horsemen accompanied by the sound of galloping hooves, which also contributed to the immersive atmosphere for all attendees that gave them a sense of reality, while accompanied by our virtual guide. Additionally, we created a hands-on area where children could freely explore a sand-filled container, with printed three-dimensional replicas of exhibited artifacts in different dimensions, and using archaeologists' tools, thereby replicating the experience of making archaeological discoveries (Fig. 22). This

[49] Dean 2002, 31.

specific space was used throughout the duration of the exhibition for educational activities specifically designed as part of this exhibition project. The sense of discovery and wonder are essential parts of the learning process, especially for younger visitors.[50]

This discovery-based approach was further supported by an activity designed especially for younger visitors: a game called *The Magic Buckle,* another participatory activity inspired by Simon's framework.[51] In this treasure hunt, children were invited to search the display cases for as many buckles as they could find. They were told the total number of buckles in each room, and their task was to locate them. This activity encouraged an investigative approach to the exhibition, allowing children to form personal connections with the objects while stimulating their imaginative, fairytale-like perception, particularly since many of the belt buckles take the form of stylized birds or bird heads. Along the way, participants learned what a buckle is and discovered the variety of its shapes, decorations, and dimensions.

Making this visit memorable, arousing their curiosity, and giving them the opportunity of learning something about the exhibits were part of our strategy to bring them closer to history and archaeology.

A living exhibition

The curator's task did not end with the exhibition's opening. We aimed to keep it relevant and present within the cultural life of Cluj. In addition to a comprehensive promotional strategy, including banners placed in high-traffic areas across the city, two complementary outdoor exhibitions, on our *Installation 10×10*, placed in one of the most circulated zone in Cluj-Napoca, radio spots, and consistent promotion through our online channels, we developed engaging content such as short video clips and a dedicated "Did You Know?" section, on museum's Facebook and Instagram pages, to sustain public interest. Following the same idea, Radio Romania Cluj organized a radio contest for both Romanian and Hungarian audiences, featuring questions inspired by the exhibition project. Winners were awarded free entry to the exhibition. The curators actively promoted the exhibition through numerous radio and television interviews, as well as through scientific conferences, presentations, and special guided tours. Moreover, a series of complementary programs and additional events were designed to enrich and support the exhibition, encouraging constant engagement with diverse audiences.

It is important highlight our collaboration with the museum's educational department, which organized a series of workshops for school groups. On special occasions, they also held events directly within the exhibition space. Among these, a notable example is the creative workshop "The Ornaments of the Migrating Peoples – Drawing and Storytelling,"[52] developed in partnership with the "Romulus Ladea" High School of Visual Arts in Cluj-Napoca, and held on the occasion of International Museum Day and the Night of Museums 2025.

[50] Jirout 2020.

[51] Simon 2010, chapter 4.

[52] Creative workshop: "Migrants' ornaments – drawing and story."

Additionally, the educational program "The Craft of Gold Processing,"[53] part of the project "The Legacy of Gold – From Ore to Ornament," as well as the initiative "Memory of Time: Echoes of History in Art,"[54] or "The young princess's necklace,"[55] emphasized the connection between history and art. Developed in collaboration with the same high school, this project involved students encouraging artistic interpretation inspired by outstanding pieces from the exhibition *Forgotten Warriors and Eternal Adornments*. The outcomes included a dedicated student exhibition, alongside many other educational initiatives, which are detailed on the museum's official website.

In addition, the museum hosted a contemporary jewelry exhibition, *MUZA* ("The Muse") conceived as a temporal dialogue, by inviting fifteen jewelry artists to draw inspiration from the exceptional archaeological artifacts on display and to create original contemporary pieces in response.[56]

We invited specialist researchers from the University of Warsaw, experts in the field, to give presentations on topics related to the exhibition. These talks were aimed particularly at students and professionals from the academic and research community.

Last but not least, we produced an exhibition catalogue that brought together contributions from numerous experts. Each offered insight into these extraordinary objects from their own discipline, presenting the information in a way that is both scholarly and accessible to the museum public.

Visitors could purchase items inspired by the museum's exhibits in the museum shop, taking home a meaningful memento of their visit.

Before the return of the treasure borrowed from the National Museum in Budapest, a comprehensive 3D scan of the entire exhibition was conducted. This was done with the explicit aim of creating a virtual tour, which will be made available on the museum's website, thereby providing broad public access in a digital format.

A museum exhibition can remain a dynamic, living process that continues to evolve after its opening. By sustaining public engagement through workshops, collaborations, and educational events, the exhibition became an ongoing platform for joyful learning and active participation in the cultural life of a community.

Conclusions

Instead of a traditional conclusion, we would like to focus on the exhibition's reception, which we were able to observe and monitor, and outline some of the most important lessons learned from this project. We intend that these insights may serve as a helpful reference for colleagues who wish to undertake similar projects in the future.

We consider that the exhibition was well received by the media, attracting interest from television and radio channels, but especially from the print press. Unfortunately, due to uncertainties in project timing and expense scheduling, we were unable to build a solid promotional campaign that would set clear expectations with the public and give them enough time to become familiar with the subject. Because of the topic's niche nature, we

[53] https://www.mnit.ro/en/-/2025/04/15/atelier-mestesugul-prelucrarii-aurului/.
[54] https://mnit.ro/-/2025/03/28/memoria-timpului-ecouri-ale-istoriei-in-arta/.
[55] https://mnit.ro/en/-/2025/02/25/colierul-tinerei-printese/.
[56] https://mnit.ro/-/2024/11/14/muza/.

should have created a brand under which to place the entire event, but in the end, this was not possible.

Nevertheless, considering the significant increase in the number of museum visitors compared to the previous year, over 50% for the same period, we believe the exhibition enjoyed a certain degree of success. According to the figures, the majority of visitors were students and pupils, making up more than half of the total audience. For students in the field, the exhibition also served as educational support, and the curators provided guided tours specializing in archaeology, numismatics, as well as curatorship and museology.

At the end of the exhibition, visitors had the opportunity to share their impressions following their visit. These, along with reactions on social media and the museum's Google page, give us a good indication of visitor satisfaction, which was quite high. Most people appreciated the way the exhibition was presented, the approach to the scientific content, and the story of Rosamunda.

Regarding our postcard installation, we welcomed over 14,600 participants, and the number would likely have been even higher if this year's budget had allowed us to continue printing the postcards. Their interventions were in some cases extremely personal: "To my uncles who managed to escape Romania during communism, and I don't know where you are, I would like to know you!," "To good friends," "My father is in France, and I am in Romania," "Ukraine: Grandmother, it is me, C. C. N.!!! I love you!"

Beyond the quantitative increase in audience, qualitative reactions highlight specific elements that resonated most strongly. Many appreciated the opportunity to see the treasures of Șimleu Silvaniei reunited for the first time in Romania. Others emphasized the innovative design and the narrative approaches, especially the voice of Rosamunda, which made the Migration Period more accessible and emotionally engaging. Interactive elements such as the "Magic Buckles" treasure hunt, the Discovery Room, and the participatory postcard installation were particularly appreciated by younger visitors and families. Social media comments and reviews on the museum's platforms confirm that visitors valued not only the spectacular nature of the artifacts but also the way in which the exhibition encouraged reflection on themes of identity and migration.

For the success of such a project, managing the time factor is very important. The Romanian state's lack of experience in managing international projects like this, which require consistent, detailed, and coherent legislation aligned with international standards, as well as substantial documentation, posed a challenge, especially given the lack of established best practices.

International collaboration was another decisive factor. The loans from Vienna and Budapest demonstrated the potential of transnational partnerships, while also exposing the limitations of the Romanian legislative framework. The absence of explicit legal provisions for immunity from seizure and state indemnity complicated the process and required ad hoc solutions. This experience underscores the urgent need for updated legislation in order to facilitate international cooperation and prevent future risks – especially relevant in light of recent cultural heritage thefts in Europe.

Another decisive factor is the predictability of the project's progress, both financially and in terms of timing, as mentioned earlier. No matter how far in advance a museum

exhibition project is planned, it often ends up being implemented at the last moment with considerable effort from everyone involved.

We would like to take this opportunity to highlight the crucial role of effective teamwork, which involved extensive coordination efforts, including the exchange of hundreds of emails, the operation of ten dedicated working groups, numerous meetings, and frequent telephone discussions. The experience gained from this project is very valuable, including communication with colleagues from other museums, the implementation team, and the visitors themselves, all of which was very rewarding. Unfortunately, the organizational structure of a museum in Romania does not currently provide a modus operandi that would facilitate the implementation of larger-scale projects.

In Romania, in most cases, this responsibility falls primarily on the curators, who must handle not only the scientific and conceptual aspects of an exhibition but also many of the logistical and organizational tasks. The project revealed structural challenges in Romanian museums, particularly the multitasking burden placed on curators; nonetheless, despite these difficulties, the project team managed to overcome obstacles through adaptability, creativity, and strong interdisciplinary collaboration. We cannot emphasize the importance of detailed planning, the benefits of diverse professional teams, and the need for communication channels within extended projects enough.

By contrast, as mentioned earlier, for example, at the Moesgaard Museum in Denmark, there exists a highly sophisticated operational system for staging large-scale exhibitions. Within this system, there is a dedicated department exclusively responsible for managing both internal and international inter-museum loans. The museum also has a well-developed marketing and public relations division, which is internally structured into specialized teams that handle different aspects of promotion, including social media campaigns, partnerships, event organization, and the production of dedicated visual materials. These are only some of the departments dedicated explicitly to exhibitions.

The exhibition implementation team is equally complex, involving not only specialists and curators but also a creative unit responsible for designing and producing the display and graphic content, all of whom are members of the museum's permanent staff. It goes without saying that all exhibition supports, display cases, materials, and settings are custom-made for each exhibition.

These projects are not only educational in nature but also conceived as blockbusters, highly accessible, up to date with the expectations of contemporary audiences, and mindful of the fact that museums today compete with cinema, immersive spaces, and concerts featuring elaborate stage design, among others.

The exhibition organized at The National Museum of Transylvanian History did not employ VR, gamification, video mapping, holograms, or large-scale immersive installations, which would have been highly suitable for its theme. This topic also involved reflecting on the balance between the duration of a temporary exhibition, costs, investments, and potential benefits. From a management perspective, it appeared that directing resources toward other areas of the exhibition might be more impactful than investing in expensive devices, which could have limited access for a wider audience. In this context, the groups most affected would have included our key target audience, school classes, and university students. Nonetheless, the exhibition addressed many contemporary trends, such as

dedicated mobile applications, the presentation of objects from multiple perspectives, varying levels of informational complexity, a strong educational component, storytelling, and inclusion. We would have liked to place greater emphasis on interactive and hands-on installations; interactivity and public participation in the curatorial process could have been more prominent, but the short timeframe did not allow for implementing the ideas proposed at the beginning of the project.

Regarding new theories on hybrid experiences, we believe the museum has taken some steps toward experimenting with these concepts, but there is definitely room for improvement. During the exhibition, the museum welcomed over 25,000 visitors and organized more than 100 guided tours. Of these, just over 13,600 visitors accessed the Rosamunda application, and interest in the 11 stories declined toward the end, with approximately 2,900 completing all the content. While the overall visitor numbers were high, engagement with the digital application was moderate, and only a small portion of users explored all content. This suggests that, although visitors were attracted to the exhibition, sustaining attention throughout the digital experience was challenging. Potential factors include story length, digital interface usability, or visitor time constraints. Future analyses of visitors' profiles and their interactions with museum tools could uncover complex social and psychological patterns, including rising functional illiteracy in Romania, younger generations' declining ability to focus on texts, and visitors' unfamiliarity with digital tools in Romanian museums. To enhance engagement, strategies moving forward could focus on shorter, more interactive segments, guided prompts within the app, or integrating the digital experience more closely with the physical exhibition to maintain engagement throughout.

Many of the ICOM 2022 principles resonate with the strategies implemented in the exhibition *Forgotten Warriors and Eternal Adornments*: its trilingual and inclusive communication addressed linguistic and physical accessibility; its participatory components, such as interactive installations and educational games, encouraged active engagement; and its narrative approach, connecting Migration Period objects with contemporary issues of identity and migration, responded to the ICOM call for museums to remain socially relevant. Unfortunately, the ICOM direction regarding sustainability is not reflected in the project.

We hope the experience gained from this project, and shared here, will be useful to colleagues undertaking similar initiatives, both as a model of good practice and as a critical reflection on the evolving role of museums in contemporary society. Exhibitions must transcend their descriptive function to become spaces of dialogue, learning, and critical connection between past and present, addressing issues that remain relevant today.

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Legislative acts

Convenția NU 15.09.2005 Convenția Națiunilor Unite din 15 septembrie 2005 cu privire la imunitățile de jurisdicție ale statelor și ale bunurilor acestora.

Directiva 2014/60/UE Directiva 2014/60/UE a Parlamentului European și a Consiliului din 15 mai 2014 privind restituirea obiectelor culturale care au părăsit teritoriul unui stat membru și de modificare a Regulamentului (UE) nr. 1024/2012 (Reformare).

HG 1121/29.11.2000 Hotărâre nr. 1121 din 29 noiembrie 2000 pentru aprobarea Normelor metodologice privind acordarea certificatului de garanție guvernamentală.

HG 1546/18.12.2003 Hotărâre nr. 1546 din 18 decembrie 2003 pentru aprobarea Normelor de conservare și restaurare a bunurilor culturale mobile clasate.

Lege 149/24.07.1997 Lege nr. 149 din 24 iulie 1997 pentru ratificarea Convenției UNIDROIT privind bunurile culturale furate sau exportate ilegal, adoptată la Roma la 24 iunie 1995.

Lege 182/25.10.2000 Lege nr. 182 din 25 octombrie 2000 (republicată) privind protejarea patrimoniului cultural național mobil.

Lege 438/27.11.2006 Lege nr. 438 din 27 noiembrie 2006 pentru ratificarea Convenției Națiunilor Unite cu privire la imunitățile de jurisdicție ale statelor și ale bunurilor acestora, adoptată la 2 decembrie 2004 la New York, semnată de România la New York la 15 septembrie 2005.

Lege 123/30.05.2017 Lege 123 din 30 mai 2017 pentru modificarea și completarea Legii nr. 182/2000 privind protejarea patrimoniului cultural național mobil.

Norme 18.12.2003 Norme din 18 decembrie 2003 de conservare și restaurare a bunurilor culturale mobile clasate.

UNIDROIT Convention UNIDROIT Convention on stolen or illegally exported cultural objects (Rome, 24 June 1995).

	A	B	C	D	E	F	G	H	I
1	ADMINISTRATION	CONCEPT	IMPLEMENTATIO N	INSURANCE	TRANSPORT	PROMOTION	OPENING EVENT & CO	CATALOGUE	MISCELLANEOUS
2	Letter of comfort	Final list of exhibited items	Conservation equipment	List of items with insurance values	Updated offers	Graphic concept for advertising	Press conference	Structure and concept, editorial guidelines	Budapest loan fee
3	Loan contracts	Arrangement of items in showcases	Exhibition setup	Updated offers	Contracting	Advertising production (flyers, posters, banners, press kits, billboards)	Catering	Contributor invitation	Vienna loan fee
4	Contracts for services	Audio concept – story for adults/children		Contracting		Billboard rental	Opening	Collecting texts	Security and protection
5		Map concept				Video for online promotion	Supporting events	Translation	Museum education
6		Immersive concept				Communication: online communication (social media), press releases		Editing	Sponsor search
7		Audiovisual material – texts				Online campaign		Proofreading	translation into English and Hungarian
8		Illustrative content (text box, graphics)				Paid posts		Typesetting	QR codes for translation
9		Label text				Advertising in print media		Printing	
10									

Fig. 1. Table showing the general tasks of the exhibition project.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	EXHIBITION CONCEPT												
2	ACTIVITIES	PERSON IN CHARGE	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER
3	Final list of exhibited items	Alpar, Agi											
4	Arrangement of items in showcases	Alpar, Agi											
5	Audio concept – story	Alpar, Agi, Ioana											
6	Map concept												
7	Ancient migrations	Alpar, Agi, Ioana											
8	Modern migrations	Ioana											
9	Immersive concept	Alpar, Agi, Ioana											
10	Audiovisual material – texts	Alpar, Agi, Ioana											
11	Interactive activities	Alpar, Agi, Ioana											
12	Illustrative content (text box,	Alpar, Agi, Ioana											
13	Label text	Alpar, Agi											

Fig. 2. Table showing the detailed tasks and calendar related to the exhibition concept.

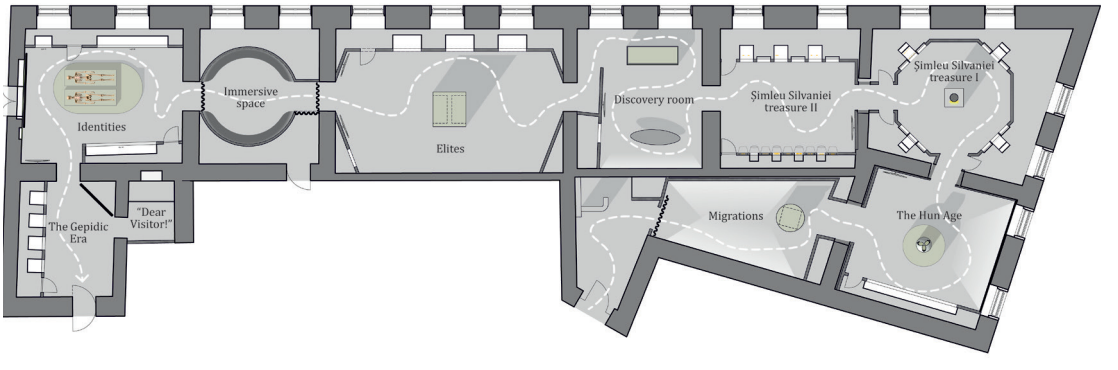


Fig. 3. Plan of the exhibition (drawing by Atelier MASS).

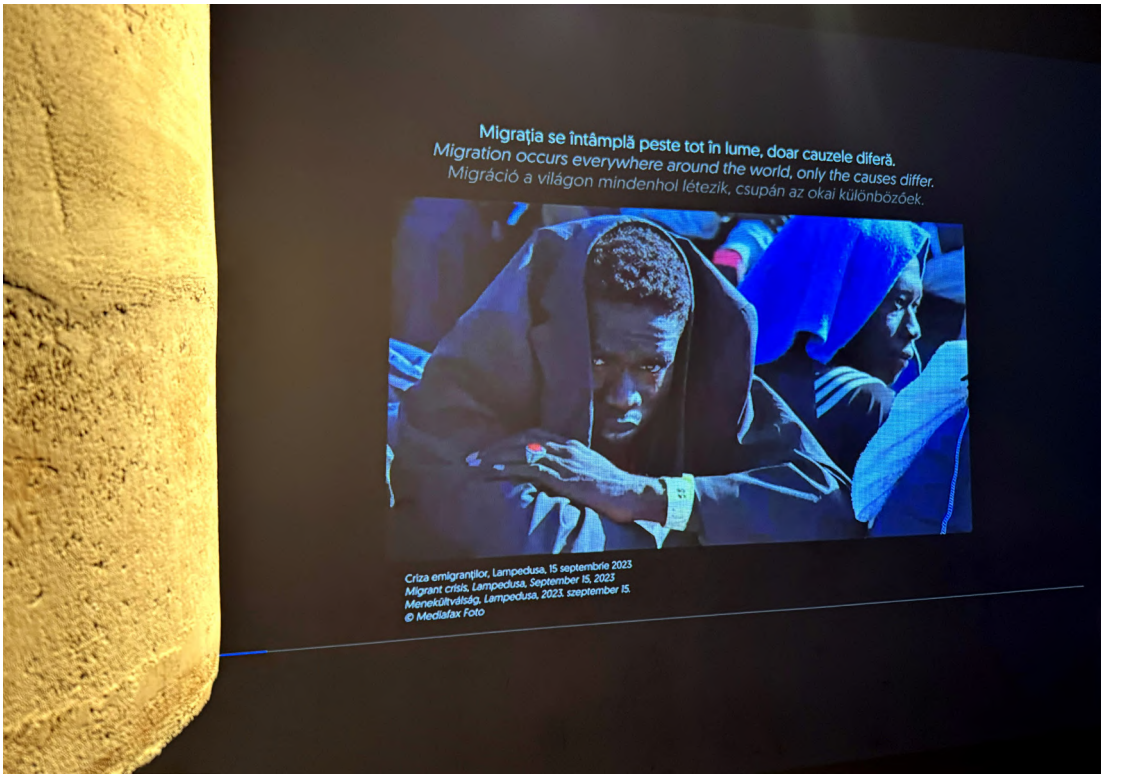


Fig. 4. Sequence from the projection on contemporary migrations (photo by Ioana Gruiță).

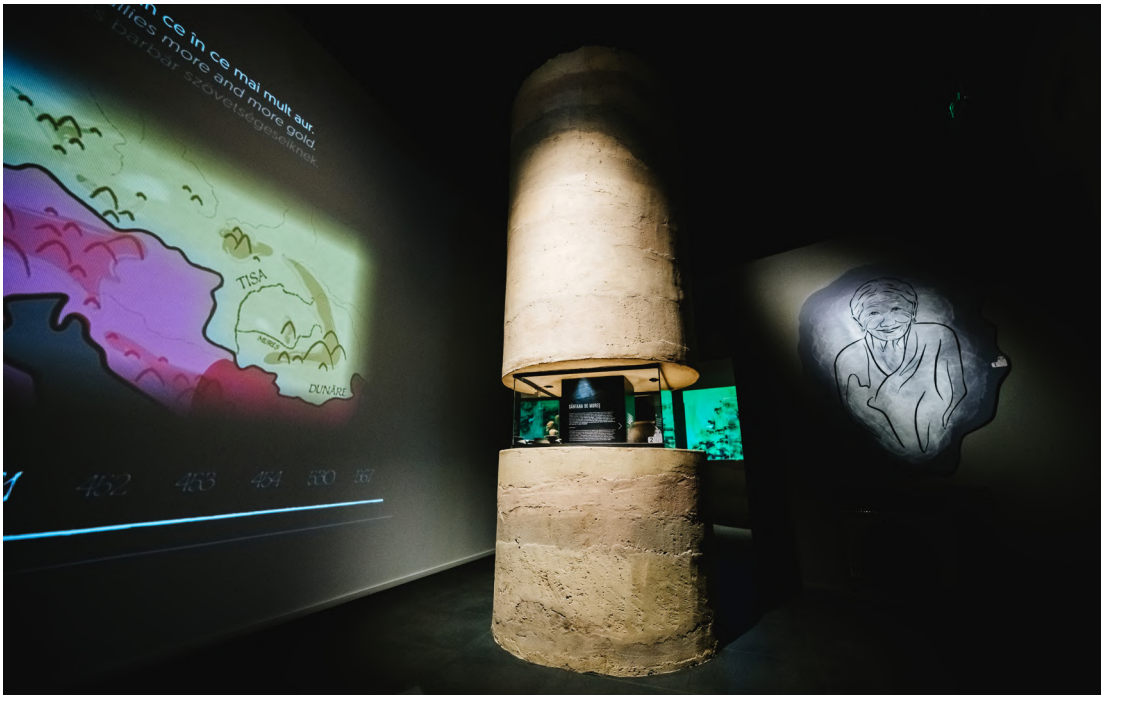


Fig. 5. Sequence from the animated map on the history of the Migration Period (photo by Cristina Rădulescu).



Fig. 6. The room presenting the first treasure from Șimleu Silvaniei with the chain in the central showcase (photo by Cristina Rădulescu).



Fig. 7. Individual showcases displaying artifacts from the second treasure from Șimleu Silvaniei (photo by Cristina Rădulescu).



Fig. 8. The gold oath-ring from the second treasure from Șimleu Silvaniei exhibited in one of the individual showcases (photo by Cristina Rădulescu).



Fig. 9. One of the two central showcases in the "Elites" room displaying the Pietroasa treasure (photo by Cristina Rădulescu).



Fig. 10. The "Hun Age" room displaying artificially deformed skulls in the central showcase (photo by Cristina Rădulescu).



Fig. 11. The "Identities" room with two representative burials from the fifth century in the center (photo by Cristina Rădulescu).



Fig. 12. Immersive space in the form of a yurt, presenting everyday-life scenes based on the miniature pendants from the gold chain of the first treasure from Șimleu Silvaniei (photo by Cristina Rădulescu).



Fig. 13. Facial reconstruction of the individual with artificially deformed skull discovered in grave 1 at Sângeorgiu de Mureș, with explanations on the practice of body modifications in the background (photo by Cristina Rădulescu).



Fig. 14. Sequence from the projection narrating the story of discovery of the Pietroasa treasure (photo by Ioana Gruiță).



Fig. 15. Interactive installation in the last room reflecting on contemporary migrations (photo by Cristina Rădulescu).



Fig. 16. Postcard used for the installation in the last room (design by Sorin Tîrt).



Fig. 17. Detail with graphic illustration inspired by decorative motifs found on the artifacts on display (photo by Ioana Gruiță).

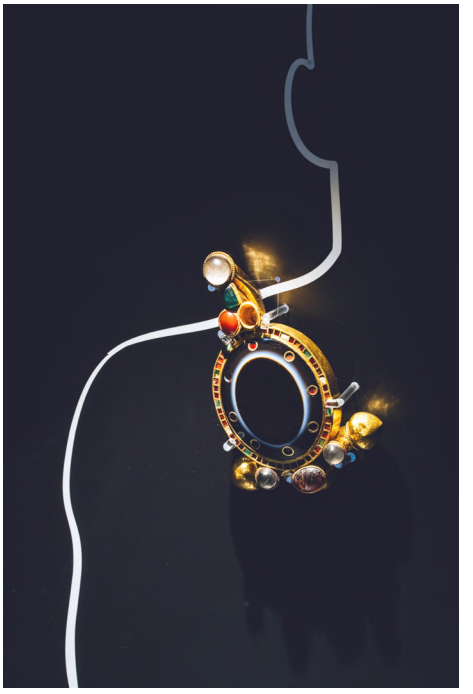


Fig. 18. The large imperial brooch with an onyx inlay from the second treasure from Șimleu Silvaniei exhibited on a silhouette to illustrate how it was worn (photo by Cristina Rădulescu).

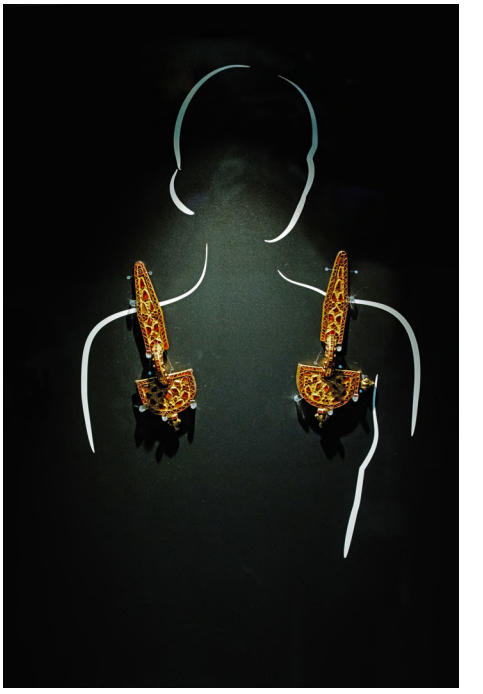


Fig. 19. Pair of bow-brooches from the second treasure from Șimleu Silvaniei exhibited on a silhouette to illustrate how they were worn (photo by Cristina Rădulescu).



Fig. 20. The "birth" of Rosamunda, the audio guide of the exhibition.



Fig. 21. Touchscreen with three possible questions for the specialist on the "Ask the expert!" installation (photo by Ioana Gruiță).



Fig. 22. "Discovery box" filled with sand for children (photo by Ioana Gruiță).

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DESIGNING ATMOSPHERE: EXHIBITION DESIGN AS A MEDIUM OF INTERPRETATION. A CASE STUDY FROM THE NATIONAL MUSEUM OF TRANSYLVANIAN HISTORY

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Abstract: In recent decades, exhibition design has evolved from a secondary framing device into an active medium of communication – one that participates in shaping narratives, constructing atmospheres, and guiding visitor interpretation. This transformation reflects a broader shift in contemporary museology, where static displays give way to dynamic spatial experiences.

This article explores how contemporary exhibition design reinterprets historical content in such contexts. Using the exhibition *Forgotten Warriors and Eternal Adornments. Barbarian Migrators during the Crisis of the Roman Empire (Fifth–Sixth Centuries CE)* at the National Museum of Transylvanian History as a case study, it investigates how scenography and spatial strategies – such as layout, lighting, materiality, and sound – mediate the relationship between objects, space, and visitor interpretation. The design narrative is structured around three central themes: migration, landscape, and archaeology.

The methodology combines visual analysis with a visitor questionnaire and shows that design acted as a co-author of the curatorial narrative, extending the initial themes through landscape and materiality; the article thus proposes atmosphere as a critical curatorial infrastructure and argues for rethinking history exhibitions as multisensory and spatial experiences.

Keywords: exhibition design**,** scenography**,** spatial narrative**,** migration**,** interpretive design

Rezumat: În ultimele decenii, designul de expoziție a evoluat de la un simplu cadru secundar la un mediu activ de comunicare – unul care participă la construirea narațiunii, la crearea atmosferei și la ghidarea interpretării vizitatorului. Această transformare reflectă o schimbare mai amplă în muzeologia contemporană, în care expunerile statice sunt înlocuite treptat de experiențe spațiale dinamice.

Acest articol explorează modul în care designul de expoziție contemporan reinterpretează conținutul istoric în astfel de contexte. Folosind ca studiu de caz expoziția *Războinici uitați și podoabe eterne: barbari migratori în timpul crizei imperiului roman (sec. V–VI p. Chr.)*, găzduită de Muzeul Național de Istorie a Transilvaniei, cercetarea investighează cum scenografia și strategiile spațiale – precum organizarea traseului, iluminarea, materialitatea și sunetul – mediază relația dintre obiecte, spațiu și interpretarea vizitatorului. Narațiunea expoziției este structurată în jurul a trei teme centrale: migrația, peisajul și arheologia.

Metodologia îmbină analiza vizuală cu un chestionar aplicat vizitatorilor și arată că designul a acționat drept co-autor al narațiunii curatoriale, extinzând temele inițiale prin peisaj și materialitate; articolul propune astfel atmosfera ca infrastructură curatorială critică și susține regândirea expozițiilor de istorie ca experiențe multisenzoriale și spațiale.

Cuvinte cheie: design expozițional, scenografie, narațiune spațială, migrație, design interpretativ

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Contextualizing exhibition design

In recent decades, exhibition design has evolved from a peripheral framing device into a critical medium of communication and interpretation. This shift reflects broader changes in museological practice, as museums increasingly move away from static, object-centered displays and embrace spatial, experiential, and multisensory approaches. Within this transformation, *atmosphere* has emerged as a central concept—no longer a secondary effect of spatial arrangement or lighting, but a deliberate and active agent in shaping how exhibitions are perceived, felt, and understood.

This article argues that atmosphere is not merely an aesthetic by-product of design, but a fundamental condition for the construction of meaning in contemporary exhibitions. Without a consciously developed and coherent atmosphere, even the most valuable artifacts may fail to engage visitors or generate lasting impact. The exhibition *Forgotten Warriors and Eternal Adornments. Barbarian Migrators during the Crisis of the Roman Empire (Fifth–Sixth Centuries CE)*, hosted at the National History Museum of Transylvania, offers a compelling case study in this regard. Through its scenographic strategies, spatial rhythm, materiality, and integration of sensory elements, it constructs an atmosphere that enables interpretation to unfold not only cognitively, but affectively and bodily.

The aim of is to investigate how exhibition design can act as a co-author of curatorial narratives, shaping the visitor's experience through spatial and emotional engagement. Specifically, it examines how atmosphere mediates between historical content and contemporary audiences, especially in architecturally constrained settings. The study combines visual analysis with visitor feedback gathered through a qualitative questionnaire, focusing on how design elements – such as lighting, layout, texture, and digital media – contributed to the understanding of the exhibition's core themes: migration, archaeology, and identity.

The relevance of this inquiry lies in its interdisciplinary scope, bridging museology, scenography, and spatial theory. By emphasizing atmosphere as a tool for constructing meaning, the article proposes a reframing of exhibition design not as decoration, but as a form of cultural authorship – capable of transforming passive viewing into active interpretation.

Literature framework

Recent scholarship emphasizes the importance of atmosphere as a key dimension of museum experience, especially in the context of exhibition design. Rather than being just ambient, atmospheres function as relational and interpretive agents that shape how visitors engage with space, objects, and narratives.

Gernot Böhme defines the atmosphere as "something indeterminate, difficult to express."[1] She also emphasize that the first thing that is perceived in a space is the atmosphere "against whose background the analytic regard distinguishes such things as objects, forms, colors etc." Furthermore, she argues that atmosphere can affect the visitor's mood, attention, and even their physical orientation in space.[2] In museum contexts, this means that atmosphere – created through light, materiality, sound, layout, and spatial

[1] Böhme 1993, 113.

[2] Böhme 1993, 120.

rhythm – can guide aesthetic contemplation and deepen interpretive engagement. Tim Ingold describing atmospheres as "a space of affect,"[3] where things and people are coming together. While analyzing Böhme and Ingold, Madsen[4] describes atmospheres as phenomena that cannot be fully understood or as phenomena in-between the objective place and the subjective space of the visitor.

In the past, exhibitions predominantly focused on displaying finished outcomes. In her ground-breaking new book, Fleur Watson[5] speaks about the rise of "performative curation" that creates a space where experimental methods for encountering design ideas are being tested, instead of exhibiting display arrangements. In this context, exhibition design is no longer limited to framing objects; it becomes a medium of experimentation. Rather than functioning as a neutral container, the exhibition is shaped as a spatial narrative.

Recent interdisciplinary studies[6] have emphasized the importance of multisensory experience as a key component in understanding immersive exhibitions. While a lot of existing research has focused on the role of digital technologies, emerging approaches highlight the need to consider curatorial strategies and theoretical frameworks – drawing from fields such as phenomenology, scenography, cognitive science, and sensory studies – to understand how design mediates the visitor's embodied experience. This perspective supports the idea that exhibition design is not merely a backdrop for content, but a curatorial tool capable of shaping perception, memory, and affective engagement.

As Macdonald and Basu[7] argues, exhibitions must be understood not as objective representations of the past, but as sites of cultural mediation – spaces in which meaning is not merely transmitted but partially constructed through the very process of mediation. Within this framework, design plays a crucial role: it not only structures spatial flow but also shapes how narratives are perceived, atmospheres are produced, and historical objects are contextualized.

Museum exhibitions function as a form of communication that bridges the gap between past and present by activating the "museality"[8] of objects – that is, their capacity to convey complex messages about history, context, and meaning. As Ivo Maroević[9] argues, exhibitions are not neutral displays but creative acts of interpretation, in which the museum curates not only objects but also knowledge and experience. Within this framework, audience interaction becomes central: exhibitions must respond to varied levels of prior knowledge, facilitating engagement without imposing didactic structures. This communicative approach highlights the exhibition not merely as a space of preservation, but as an active and interpretive interface between institution, object, and visitor.

In the same line of thinking, Madsen[10] conducts an exhibition experiment at Faaborg Museum in Denmark where she questions if it's enough for a visitor "just look." She concludes that exhibition design cannot rely solely on passive visual engagement but must

[3] Ingold 2015, 73.
[4] Madsen 2019, 233.
[5] Watson 2021.
[6] Pan 2021.
[7] Macdonald, Basu 2007, 1–25.
[8] Maroevic 1994.
[9] Maroevic 1994.
[10] Madsen 2019, 233.

acknowledge and respond to the diverse capacities, expectations, and social positions of its audiences.

Positioning itself within this perspective, the present study investigates how exhibition design mediates interpretation and engagement, with particular attention to spatial configuration and sensorial cues. Material choices, spatial layout, lighting, and scenographic strategies all work together to construct atmospheres that can either amplify or diminish the expressive power of displayed artifacts. In doing so, it contributes to a growing field of inquiry that views exhibition design as an interpretive and communicative practice.

Designing principles of the *Forgotten Warriors and Eternal Adornments* exhibition

The National History Museum of Transylvania from Cluj-Napoca is housed in a nineteenth-century building conceived by a patron of the arts and theatre. The exhibition *Forgotten Warriors and Eternal Adornments* occupied the eastern wing of the museum and brought together a unique selection of artifacts from the Migration Period. The centerpiece of the collection was the treasure from Șimleu Silvaniei, one of the most remarkable discoveries from the fifth century. It was hosted at the National History Museum of Transylvania in Cluj-Napoca, for one year since November 2025.

The initial thematic framework, defined by the curator and museum specialists, provided the conceptual foundation for the exhibition design. Building on this framework, the spatial and scenographic concept was subsequently developed. The curatorial vision focused on the theme of migration – understood not only as a historical phenomenon of the fifth century but also as a lens through which to reflect on contemporary issues. Around this core theme, three key notions were emphasized: power, conflict, and wealth. The selection of objects aimed to highlight archaeological artifacts of both aesthetic and historical significance, while also showcasing the diversity of their provenance. Equally important was the intention to narrate the story of the artifacts' discovery, anchoring them in specific historical and geographical contexts rather than presenting them as isolated museum pieces

The interior design project did not merely translate the curatorial ideas into spatial form but further developed and expanded upon them, at times introducing new interpretative layers or proposing alternative ways of engaging with the content. In this sense, the design process became a creative and critical interlocutor to the curatorial vision – both supporting and challenging it – through material, spatial, and sensory choices that shaped how the themes were experienced by the visitors.

One of the main challenges posed by the existing space was the linear sequence of rooms in the eastern wing of the museum, along with the general spatial limitations (Fig. 1). This enfilade layout, characterized by a succession of similarly proportioned and connected rooms, imposed a strong directional flow and limited the possibility for curatorial pauses, spatial variation, or immersive transitions.

Then the exhibition design concept was built around not around one but three central themes – migration, landscape, and archaeology – that not only structure the curatorial narrative but also inform the spatial and scenographic design of the exhibition. These themes were not treated as static backdrops to a historical storyline, but rather as active conceptual layers. Rather than aiming for historical reconstruction, the exhibition engages

in atmospheric interpretation, using materiality, sound, light, and animation to evoke thematic layers. These elements are not illustrative; instead, they constitute an interpretive infrastructure that mediates the visitor's engagement with the objects on display. Rammed earth pedestals, grain textures, and tactile surfaces articulate a physical context that complements the artifacts' historical significance, while carefully composed soundscapes and animated sequences activate a more immersive, reflective experience. Through this approach, spatial design becomes integral to the storytelling process. The exhibition's scenographic elements guide the visitor through a symbolic journey, reinforcing the conceptual depth of the curatorial narrative. In doing so, the project embodies a mode of practice where curatorial and spatial strategies converge, allowing the design to not only support but also produce meaning.

This curatorial model reflects a broader shift in contemporary museography, where exhibition-making is understood as an interpretive practice.[11] By embracing the role of design as an exhibit, it enables the visitor's engagement with the past not only cognitively, but also affectively and experientially. The integration of these three themes – migration, landscape, and archaeology – was not a theoretical exercise alone but a coherent strategy for articulating space and meaning throughout the exhibition. Through design, these themes are given physical consistency and become part of the visitor's embodied experience. Understanding how these concepts have been translated into exhibition design is essential, given that the article adopts the perspective of exhibition design as a critical framework.

Migration – A transversal and contemporary theme

Migration stands at the core of the exhibition's conceptual framework. Migration is a complex subject, yet it has increasingly become a recurring theme in museum practice,[12] mostly focusing on the contemporary phenomenon.[13] Here it is addressed both in its historical dimension – the large-scale population movements that marked the 5th and 6th centuries during the crisis of the Roman Empire – and as a contemporary phenomenon, with profound social and political implications. From this dual perspective, the exhibition invites reflection on ideas of mobility, belonging, and identity.

The spatial translation of this theme is achieved through a unidirectional route that evokes a journey across territories and historical moments. The idea of movement is made visceral using sound and projection. Subtle but persistent audio elements – particularly the recorded sound of horse hooves – create a sonic landscape that echoes through the exhibition space, conjuring the presence of moving groups, nomadic routes, and distant territories. This auditory intervention evokes a physical and emotional sense of displacement, anchoring the visitor in a state of transit rather than stasis. In parallel, animated projections suggest ongoing movement through fragmented visuals – routes, maps, silhouettes in motion (Fig. 2) – amplifying the affective dimension of the migratory experience. These elements encourage empathetic engagement, allowing visitors to sense,

[11] Message 2006.

[12] Güneröz, Yanar 2024.

[13] For example, even the exhibition in the Romanian pavilion at the 2020 Venice Architecture Biennale – Fading Borders, had as its theme temporary or permanent migration.

rather than just know, the uncertainty, tension, and resilience that accompany forced or chosen migration.

The connection between past and present enables visitors to draw intuitive parallels between the historical migratory movements and those shaping today's world. In doing so, it reframes migration not as a closed historical chapter, but as a recurring human condition—one that continues to raise questions of identity, territory, and coexistence.

Landscape – Between physical geography and historical imagination

The second conceptual layer – landscape – was introduced by the design team as a mediating element between the themes of migration and the third theme, archaeology. This addition aimed to root the historical narrative in a sense of place, evoking the geographical and environmental conditions through which migrating communities moved and where the artifacts were ultimately deposited. By incorporating landscape as a curatorial and scenographic tool, the design not only offered spatial continuity but also invited visitors to imagine the dynamic relationship between people, territory, and material culture. Through visual cues, textures, and spatial transitions, the notion of landscape became a connective tissue that deepened the narrative coherence of the exhibition.

The objects are not displayed as isolated artifacts, but as fragments recovered from a recognizably archaeological terrain – now reimagined within the museum space. The design evokes this landscape through a careful selection of materials and textures: rammed earth pedestals (Fig. 3), rough and smooth wall surfaces (Fig. 4), and elements such as sand, wheat (Fig. 5), and stone, all contribute to constructing a sedimentary atmosphere that references the sites of archaeological discovery. In this way, the landscape becomes a narrative space –tangible and visible – where historical and geographical context is made accessible to the public. Landscape is not a passive backdrop but an interpretive agent. These elements reshape the exhibition space into what Simon Schama[14] describes as a *memoryscape* – a layered environment that holds and reveals traces of the past. Here, landscape functions as a palimpsest – geographical, historical, and mnemonic.

Archaeology – Between discovery and reconstruction

The third layer of the concept, reinterpreted by the design team, is archaeology, understood not only as a science of discovery, but also as a narrative tool. Visitors are invited to follow the reverse path of the artifact – from the museum showcase back to the soil on which it was found. This narrative thread is supported by the integration of interactive and educational spaces. The story of the discovery becomes as important as the artefact.

The *Discovery Room* (Fig. 6) presents animated content and simulations that place visitors in the role of the archaeologist, encouraging them to actively engage in processes of interpretation and reconstruction. In doing so, the visitor is no longer a passive observer, but an active participant in reimagining the past. Visitors retrace the object's trajectory from excavation site to display, with interactive installations simulating archaeological processes. These interventions foreground interpretation over replication, inviting a participatory relationship between viewer and object.

[14] Schama 1996.

Analyzing the design strategies and materiality from the designer point of view

The curatorial approach privileges a narrative trajectory that unfolds through a one-directional path (Fig. 7), structured both chronologically and thematically. The spatial rhythm alternates between zones of high object density and *respiro* areas (Fig. 8), where atmosphere and scenography take precedence. This alternation allows for both cognitive and affective modes of engagement, preventing visitor fatigue and encouraging reflection.

Two key interactive spaces punctuate the experience. The *Discovery Room* offers a hands-on environment that invites visitors to engage with the archaeological process through digital reconstructions and simulated excavations. Nearby, the immersive circular chamber (Fig. 9) envelops the viewer in a multisensory installation that combines sound, animated imagery, and layered narratives, reinforcing the emotional and symbolic dimensions of migration and transformation.

The exhibition design of *Forgotten Warriors and Eternal Adornments* adopts a material vocabulary that is both symbolic and contextually grounded. The choice of materials such as rammed earth (Fig. 10), fragments of stone (Fig. 11), sand (Fig. 6), and wheat (Fig. 12) serve not merely decorative functions, but activate layers of meaning that echo the archaeological and geographical origins of the artifacts. These elements evoke a tactile memory of the land, positioning the museum as a *resonant site* where landscape and history intersect.

Surfaces – whether wall treatments, display plinths, or background textures – were conceived with a view to visual balance and interpretive depth. Those elements contribute to a coherent visual field that avoids spectacle, instead supporting contemplative engagement with the objects. The tactile rawness of the materials contrasts with the precision of the display cases, reinforcing a dynamic tension between the ancient and the contemporary.

Light plays a critical narrative role within the exhibition. Through directional and accent lighting, attention is drawn to specific objects and micro-scenes, while shadows and gradients delineate spatial transitions. Light is used to guide the visitor, creating rhythm and hierarchy, but also suggesting symbolic meanings – exposing, concealing, revealing. Light is concentrated (Fig. 13) and purposefully directed, guiding the visitors' attention toward key elements of the display. It highlights significant details, encourages focus, and supports a layered reading of the exhibition's narrative.

Several artifacts emerge as emblematic nodes within the exhibition's narrative web. They serve as narrative milestones along the exhibition route, marking moments of pause, reflection, and thematic emphasis (Fig. 14). Among these, the onyx fibula, remarkable for its refined craftsmanship and rarity, functions as both a historical object and a metaphor for cultural hybridity. The intentionally deformed skulls, meanwhile, open a window onto ritual practices and social stratification, provoking curiosity and inviting anthropological reflection.

These objects are accompanied by narratives of discovery, which blend scientific data, local memory, and museological storytelling. Rather than neutral facts, the stories surrounding these artifacts unfold like micro-narratives, each offering an entry point into broader themes: identity, body, power, and belief. The impact of these narratives is not merely informative but affective. By framing objects within story-driven interpretive environments, the exhibition shapes the public's perception of the past not as static or remote,

but as porous, contested, and emotionally resonant. In this sense, each object becomes a narrative agent, capable of conveying histories that are both intimate and transhistorical.

Visitor experience

A questionnaire was conducted with 45 visitors. The survey included eight multiple-choice questions related to the perception of space in relation to the exhibition, and two open-ended questions: one about the most important element in the exhibition, and one about visitor interaction. More than half were between 40 and 55 years old, while the rest were split roughly equally between those under 25 and those aged 25 to 40 (Fig. 15).

The results indicate a clearly positive reception to the exhibition path, both in terms of spatial orientation and the atmosphere created. All respondents appreciated the clarity and logic of the exhibition layout (Fig. 15). A total of 39 visitors stated that the exhibition design helped them better understand the theme (Fig. 15), reinforcing the idea that scenography was not merely a backdrop for the objects, but an active medium for translating and deepening the historical content. Visitors were also able to clearly identify the sensory stimuli that had the most significant impact on their experience. Regarding the overall atmosphere, most of the visitors considered it related to the theme (Fig. 15).

When asked to elaborate about atmosphere, they mentioned the relevance of natural materials, the colors, the balance between light and shadow, and the video inserts that introduced movement into space (Fig. 16). Textures were the most frequently mentioned element, as they invited tactile proximity and evoked a strong connection to historical materiality. Video projections followed, enhancing the visual narrative and introducing a temporal dimension to the experience. Lighting, though mentioned less frequently, was not perceived merely as a technical necessity but as an integral component of visual composition (Fig. 16).

Open-ended responses highlighted several memorable scenographic elements that acted as both sensory and symbolic anchors – though in some cases, also as sources of discomfort. The contrast between light and darkness was frequently mentioned: 31 respondents found it appropriate and essential to the atmosphere, while others felt it was too dark – effective, but not perfect. Particularly memorable elements included the wheat installation and the ceramic cones on the wall, perceived as unusual and impactful. The exhibited objects themselves were also praised – not overshadowed by the scenography but rather enhanced by the spatial setting. The video inserts were appreciated for their ability to contextualize the content and bring a contemporary layer to the exhibition. The balance in the use of digital media was praised, especially in comparison to other museums where excessive reliance on digital content often comes at the expense of physical artifacts. Some visitors compared this exhibition favorably with others they found too traditional or monotonous.

Among the critical remarks were concerns about the ergonomics of the seating areas, especially considering the "museum fatigue" caused by the richness of the display. Additionally, some visitors noted the lack of sufficient space around key exhibits, which made it difficult for larger groups to gather and engage with the central pieces.

These findings support the idea that the exhibition atmosphere was actively perceived rather than passively consumed, and that visitors were engaged not only cognitively but

also emotionally and sensorily. Thus, the exhibition design functioned as a medium for translating history into a complex bodily and interpretive experience, suggesting that scenography holds real potential to influence how the public understands and retains historical content.

Conclusions

Atmosphere is not an aesthetic product of exhibition design, but a fundamental instrument in the construction of meaning. In the *Forgotten Warriors and Eternal Adornments* exhibition, atmosphere did not emerge secondarily from the combination of objects, space, and light – it was conceived as an active tool mediating between content and visitor. Rather than being a vague or decorative background, the atmosphere here functions as a mindful, physical presence that shapes how visitors emotionally and cognitively engage with the exhibition's narratives. The spatial and scenographic strategies were deliberately aimed at crafting such atmospheres, activating visitors' multisensory experience to deepen understanding and connection to the themes of migration, landscape, and archaeology.

Here, design acted as a co-author of the narrative, rather than a mere translator of a preexisting curatorial concept. It introduced new themes, such as landscape which bridged migration and archaeology, brought in a materiality that complemented the historical discourse, and created the conditions for a sensorial relationship with the objects. Through these interventions, the exhibition departed from the conventional model of historical displays, where objects "speak" from glass cases through labels, and instead proposed a spatial narrative in which meaning is constructed in real time, through atmosphere and perception. The reproduction of dioramas or highly realistic scenes is another exhibition strategy that often fails to resonate with the contemporary visitor. While once considered effective for bringing historical contexts "to life," such static and overly literal reconstructions can now seem outdated or even didactic. In many cases, they risk reducing complex historical narratives to simplified, theatrical tableaux that leave little room for interpretation or emotional engagement.

At the same time the interactive and digital areas are not included merely for the sake of spectacle; they are an integral and thoughtfully embedded part of the visitor's journey through the exhibition. Their role is not to distract or entertain superficially, but to deepen engagement and to offer alternative modes of accessing the narrative. Whether through projected maps, immersive soundscapes, or tactile digital interfaces, these elements are designed to complement the historical content, reinforcing key themes and allowing visitors to explore the material from multiple angles. Rather than standing apart from the physical artifacts, they are interwoven into the spatial and conceptual structure of the exhibition, encouraging a more active, multisensory, and personalized encounter with the curatorial message

This approach raises an essential question for contemporary history museums: is the display of valuable artifacts sufficient to generate knowledge and cultural memory? Or is there a need to rethink exhibitions more profoundly, as multisensory experiences in which atmosphere becomes the medium through which the historical object is not only understood but also felt?

The case study shows that, without a consciously constructed and coherent atmosphere, even the most spectacular artifacts may fail to leave a significant impact on the visitor. Therefore, exhibition scenography must not be treated as a decorative addition, but as a critical dimension of cultural interpretation. In this sense, atmosphere is not what merely "surrounds" the objects – it is the medium through which they become intelligible, relevant, and memorable.

The scenographic design of the exhibition creates conditions for interpretive engagement rather than passive observation. In alignment with Fleur Watson's concept of "design as exhibit," the exhibition *Forgotten Warriors and Eternal Adornments* illustrates how curatorial practice can transcend traditional roles of content selection and display arrangement, evolving into a spatial and experiential act of authorship.[15] In this framework, the designer had assumed the role of a space-maker, crafting interpretive environments where exhibition design operates not as a neutral backdrop, but as an active narrative agent.

Still, open questions remain that call for further research: What scenographic strategies can activate atmosphere in ways that are meaningfully aligned with content? How can we assess the impact of atmosphere on visitors—beyond subjective impressions? And perhaps most importantly, what kind of collaboration should exist between curator, designer, and audience for the exhibition to become a form of collective thinking, not merely one of presentation

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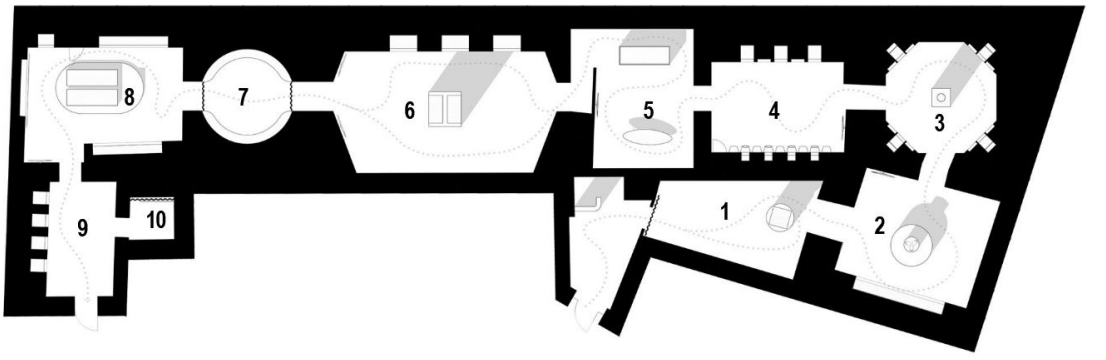


Fig. 1. *Forgotten Warriors and Eternal Adornments* – exhibition plan layout (drawing by Camelia Sisak).



Fig 2. Illustrating the concept of migration through continuous movement in animation (photo by Violeta Frișan).



Fig. 3. Rammed earth column display in room 2 (photo by Camelia Sisak).

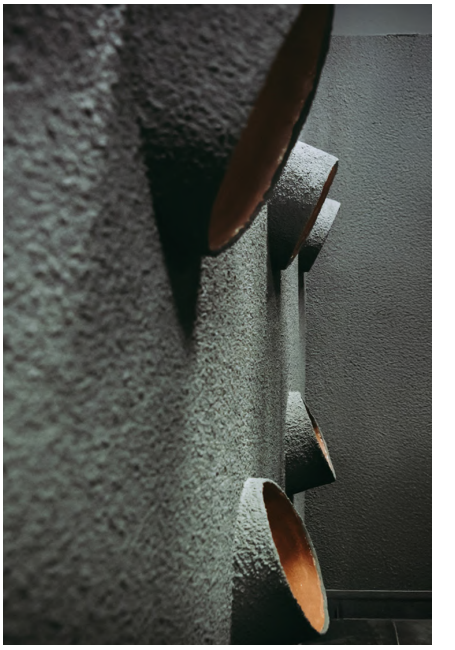


Fig. 4. Textured wall surfaces in rooms 3 and 4 (photo by Violeta Frișan).



Fig. 5. Natural wheat display in room 8 (photo by Violeta Frișan).



Fig. 6. Discovery room sand box in room 5 (photo by Violeta Frișan and Cristina Rădulescu).

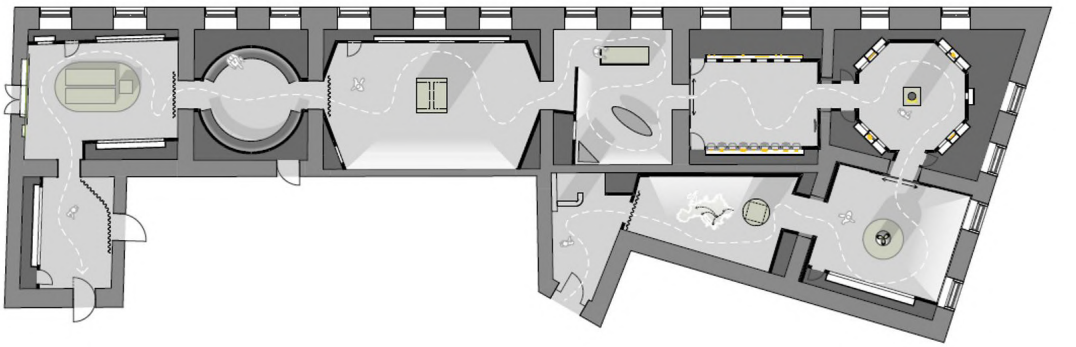


Fig. 7. Visitors path through the exhibition (drawing by Violeta Frișan).

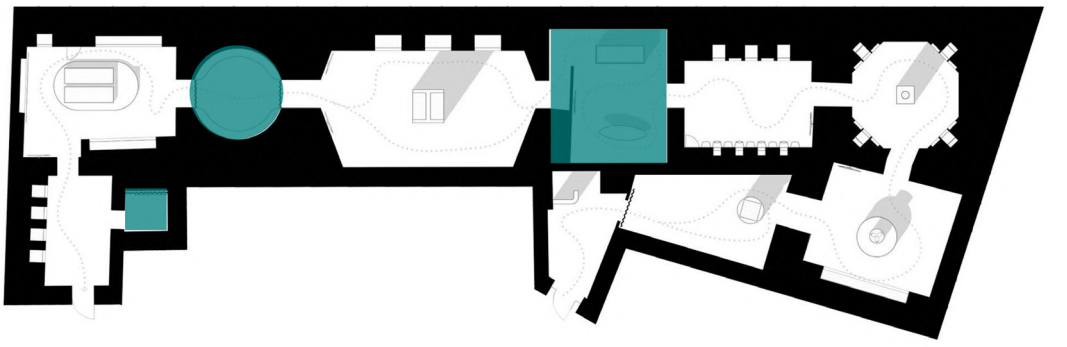


Fig. 8. *Respiro* designated areas in room 5 (Discovery room), room 7 (Immersive circular chamber), room 10 (Contemporary migration room) (drawing by Camelia Sisak).



Fig. 9. Immersive circular chamber in room 7 (photo by Violeta Frișan).

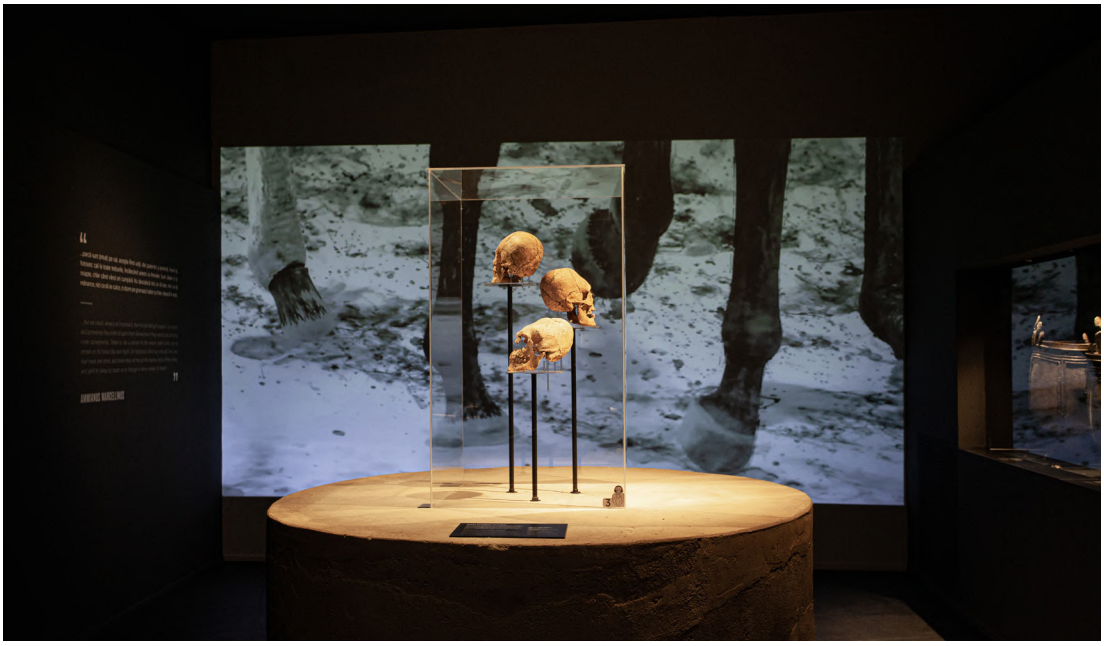


Fig. 10. Rammed earth pedestal, displaying the deformed skulls in room 2 (photo by Violeta Frișan).



Fig. 11. Stone column detail in room 3 (photo by Cristina Rădulescu).



Fig. 12. Natural wheat display detail in room 8 (photo by Cristina Rădulescu).



Fig. 13. Directed, concentrated lighting display in room 4 (photo by Cristina Rădulescu).

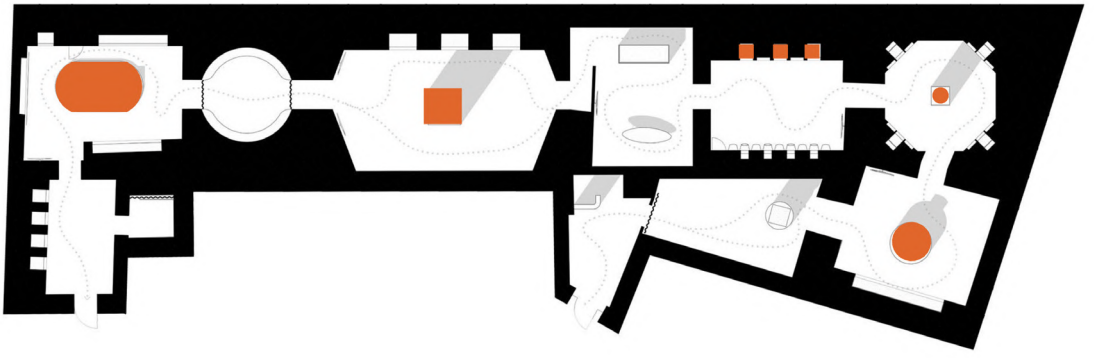


Fig. 14. Milestone artifacts position along the path (drawing by Camelia Sisak).



Fig. 15. Participant profile and perception of the exhibition (data from "Questionnaire on visitors' experience regarding the *Forgotten Warriors and Eternal Adornments* exhibition," by Camelia Sisak, 2025).

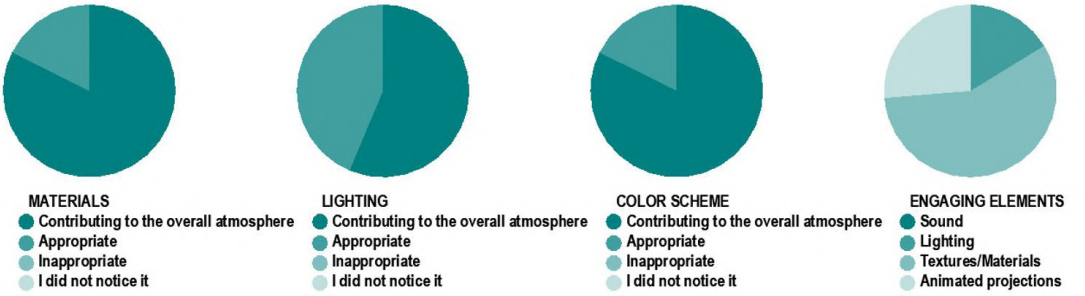


Fig. 16. Evaluating the impact of materials, lighting, color, and sensory elements on the visitor experience (data from "Questionnaire on visitors' experience regarding the *Forgotten Warriors and Eternal Adornments* exhibition," by Camelia Sisak, 2025).

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FROM EXPEDITION TO EXHIBITION. THE BELGICA STORY OF 125 YEARS – REFLECTIONS FROM A CURATOR'S JOURNAL

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Abstract: This article explores the curatorial process behind the *The Dream of the First Polar Night – Belgica, the Antarctic Expedition 1897–1899*, a temporary exhibition developed at the "Grigore Antipa" National Museum of Natural History, marking 125 years since the return of the *Belgica* expedition. Conceived as both a scientific and an emotional journey, the exhibition brought together original artifacts, documents, expedition maps, and interactive applications to revive the memory of the first human overwintering in Antarctica. Through communication strategies aimed at public engagement – including multimedia tools, immersive storytelling, and educational programs – the exhibition reconnected contemporary audiences with the legacy of Emil Racoviță and the *Belgica* crew. The article also reflects on the role of museums in preserving scientific heritage and proposes future directions for thematic exhibitions dedicated to great scientific expeditions that have transformed the way we understand the world.

Keywords: natural history museums, curatorial process, temporary exhibition, Antarctica, expedition, thematic guided tours

Rezumat: Acest articol explorează demersul curatorial din spatele expoziției temporare *Visul primei nopți polare – Belgica, expediția antarctică 1897–1899*, organizată de Muzeul Național de Istorie Naturală „Grigore Antipa", pentru a marca împlinirea a 125 de ani de la întoarcerea expediției *Belgica*. Concepută ca o călătorie științifică și emoțională deopotrivă, expoziția a reunit obiecte originale, documente de arhivă, hărți ale expediției și aplicații interactive, readucând în atenția publicului memoria primei ierni petrecute de oameni în Antarctica. Prin strategiile de comunicare orientate către atragerea și implicarea publicului – instrumente multimedia, narațiune imersivă și programe educative – expoziția a reconectat vizitatorii contemporani cu moștenirea lui Emil Racoviță și a echipajului *Belgica*. Articolul reflectă, de asemenea, asupra rolului muzeelor în valorificarea patrimoniului științific și propune direcții viitoare pentru expoziții tematice dedicate marilor expediții științifice care au schimbat modul în care înțelegem lumea.

Cuvinte cheie: muzee de istorie naturală, proces curatorial, expoziție temporară, Antarctica, expediție, tururi tematice ghidate

Introduction

The development and presentation of temporary exhibitions represents a core function of museums and heritage institutions worldwide.[1] Over the past century,

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[1] King et alii 2025, 163–200.

exhibitions in natural history museums have undergone substantial conceptual and curatorial evolutions – shifting from static displays of labeled specimens to interpretive frameworks that prioritize narrative, contextualization, and public engagement. A key curatorial challenge today is finding a balance between preserving and celebrating iconic objects, and making them meaningful in the context of current scientific, cultural, and environmental discussions. This balance is central to envisioning the future of natural history museum exhibitions.[2] Visitor expectations have become increasingly personalized and shaped by digital connectivity. In response, museums must continuously adapt and innovate their interpretive strategies in order to meet audiences where they are – both intellectually and technologically. This requires an ongoing re-evaluation of exhibition design, content delivery, and modes of engagement to remain relevant in an ever-evolving cultural landscape.

The historical importance of the *Belgica* expedition in the context of polar exploration

The dream of the first southern polar night was brought to life by a young Belgian commander, accompanied by a crew of nine scientific officers and ten sailors. They were carried by a small vessel – once an unassuming whaling ship in the freezing northern seas – refitted and renamed Belgica. The naturalist of this expedition was Emil Racoviță. The Belgica became renowned as the first expedition whose crew spent 13 months trapped in the Antarctic pack ice.

During this period, the expedition's scientists conducted highly valuable meteorological and oceanographic observations, testament to their discipline even as the crew faced a double-fronted crisis: a physiological collapse due to scurvy and a profound psychological disintegration, known euphemistically at the time as "polar anemia." The enduring scientific legacy of the *Belgica* expedition is encapsulated in its results, published over four decades in nine volumes (comprising 72 issues of Zoology and Botany). This monumental output, which remains a reference in multiple fields, was not accidental; it was the direct consequence of the meticulous preparations undertaken by its naturalist. Racoviță's extensive travels across Europe to acquire specialized equipment, from custom-ordered Parisian registers to microscopes and glassware, laid the systematic foundation for the data collection that would prove so valuable.

Even after returning from the expedition, the *Belgica* continued to sail to the frozen northern regions, on voyages commissioned by Prince Philippe of Orléans and led by Adrien de Gerlache, the ship's original commander. In 1916, the *Belgica* ended its career as a research vessel and was converted into a passenger and cargo transport ship. During the Allied evacuation of Harstad, in 1940, the remaining ships were deliberately scuttled to prevent them from falling into German hands. Among them was the *Belgica* – the famous vessel that had written a significant chapter in the history of polar exploration. The wreck of the *Belgica* was discovered in 1990, and one of its anchors is now on display at the Polar Museum in Tromsø.

[2] Blond 2018, 103–119.

Curatorial vision: why *Belgica*, and why now?

At the beginning of 2024, the idea emerged to organize a temporary exhibition dedicated to the *Belgica* expedition. The initiative was particularly timely, as the autumn of 2024 marked the 125th anniversary of the completion of the famous voyage. The timing aligned perfectly with another major institutional event: the international zoology congress hosted by the Antipa Museum in November[3] – an event of significant importance for both the national and international scientific communities. The opening of the exhibition was therefore scheduled as a complementary event to the congress (Fig. 1).

Documentation and research: building the narrative

The documentation process for the temporary exhibition began primarily with the review of bibliographic sources related to the *Belgica* expedition, including scientific articles and books, the journals published following the voyage, and biographies of the scientific crew members.

Recently, scientific articles published in journals such as *Polar Research* have begun to re-evaluate the achievements of the *Belgica* expedition, including the publication of its results, over more than 40 years after the crew's return. These publications covered biological, geological, geophysical, meteorological, and oceanographic data; in total, 92 issues were grouped in nine volumes and distributed over the world in 500 places, more administrative offices than research institutions. For decades, these achievements were unjustly overshadowed, likely because their narrative of passive entrapment and scientific grind lacked the dramatic appeal of the subsequent "heroic age" races for the Pole.[4]

The Belgica expedition stands as a remarkable testament to what a small group of dedicated young scientists – the oldest just 34 years old – can achieve when fully committed to the rigorous publication of their findings. The quantity of scientific literature is impressive in both scope and detail. Yet, despite its significance, this wealth of data has remained largely underutilized by the scientific community in recent decades. Today, however, most of these works have been digitized and are now readily available on the Flanders Marine Institute in Ostend website (http://www.vliz.be). It is hoped that this article will bring renewed attention to this invaluable dataset, particularly for researchers investigating long-term environmental change in the region surrounding the Antarctic Peninsula, by drawing on observations made over 125 years ago.

The most recent publication inspired by the story of the *Belgica* expedition is Julian Sancton's book, *Madhouse at the End of the Earth*,[5] a masterfully written account featuring legendary figures, among them Roald Amundsen, Frederick Cook, and Adrien de Gerlache.

Nevertheless, the most prolific documentarian of the *Belgica* expedition remains Alexandru Marinescu. His books,[6] published in both Romanian and French, are meticulously documented, drawing upon valuable archival sources, both public and

[3] ZoologyCon 2024 – The International Congress of Zoology, organized by the Antipa Museum in collaboration with the Romanian Academy and the University of Bucharest, having already 11 editions, took place between 6 and 9 November 2024.

[4] De Deckker 2018, 1–7.

[5] Sancton 2023, 1–426.

[6] Marinescu 1991; Marinescu 1998; Marinescu, Iftime, Bănărescu 1999.

private. Notably, Marinescu had privileged access to the personal archive of the Baron de Gerlache's family. A fluent French speaker and a devoted researcher of the history of science, deeply fascinated by the figure of Emil Racoviță, Alexandru Marinescu was a leading figure in natural history museology during the 1990s. He skillfully combined rigorous scholarship, science communication, and curatorial practice. In addition to his published volumes on the *Belgica*, he curated two temporary exhibitions dedicated to the Antarctic expedition – one at the National Museum of Natural History in Bucharest[7] and the other at the Royal Belgian Institute of Natural Sciences, both organized to mark the centenary of the *Belgica* voyage.[8]

The documentation stage for the current exhibition also included a visit to the temporary exhibition organized by the MAS Museum (Museum aan de Stroom) in Antwerp, entitled *To the Antarctic: Belgica's Polar Pioneer*, which was dedicated to the *Belgica* expedition. This outstanding exhibition, set up in a generous and well-designed space, showcased the crew's diaries, remarkable photographs, and authentic parts of the expedition ship – successfully bringing this incredible polar adventure back to life. The visit to Antwerp provided not only essential documentation opportunities, encompassing a valuable visitor-receptor perspective, but also a deeply formative experience. It established a significant benchmark for an immersive exhibition, designed to engage all sensory faculties, particularly when situated on the quays of the Scheldt (Escaut) river – the precise historical point of departure for the Belgica's extraordinary voyage.

Another research visit was carried out in Cluj-Napoca at the Institute of Speleology and the Romanian Academy Library,[9] Cluj-Napoca Branch, where numerous documents and personal items belonging to Emil Racoviță, the expedition's naturalist, are currently housed.

The crew's journals proved to be an invaluable source of information. Dr. Frederick Cook, the American physician to whom the *Belgica* crew largely owed their survival, published a detailed and captivating expedition journal in 1901, shortly after the voyage ended. The book became a bestseller of its time.[10] Baron Adrien de Gerlache also published an elegant and reflective journal,[11] followed by Captain Georges Lecointe[12] and the expedition's meteorologist, the Polish scientist Henryk Arctowski.[13] Roald Amundsen's journal was published much later, in a volume edited by Hugo Decleir in 1999.[14]

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[7] The temporary exhibition *Belgica* (curated by Alexandru Marinescu) was inaugurated on 22 December 1987, on the occasion of the expedition's centenary, in the presence of diplomatic representatives from Belgium and Poland accredited in Bucharest.

[8] The temporary exhibition *Emil Racovitza – Le Naturaliste de la Belgica* (co-curated by Alexandru Marinescu) was organized by the Maison Culturelle Belgo-Roumaine, the Museum of Natural Sciences (Brussels), the "Grigore Antipa" National Museum of Natural History (Bucharest), and the Romanian Academy. It was held between 21 November 1987 and 31 March 1988.

[9] The Romanian Academy Library – Cluj-Napoca Branch houses a collection of documents (correspondence and notes) that belonged to Emil Racoviță, donated by the scholar's nephew, Gheorghe Racoviță.

[10] Cook 1901.

[11] De Gerlache 1902.

[12] Lecointe 1904.

[13] Arctowski 1901.

[14] Decleir 1999.

People, key objects, and narratives uncovered during research

One of the heroes of the *Belgica* expedition – still far too little known in Romania compared to the crucial role he played in its successful return – was Dr. Frederick Albert Cook, a 32-year-old American (of German descent) physician and photographer. His prior polar experience, gained during expeditions to Greenland, positioned him as one of the expedition's most remarkable figures. His crewmates described him as "charming, helpful, energetic, and resourceful."[15] Dr. Cook possessed a unique ability to connect with people and earn the trust of his patients. He was also a gifted photographer; his iconic image of the *Belgica*, trapped in ice and bathed in moonlight, remains a masterpiece to this day (Fig. 2).

The historical and medical consensus is unequivocal: without Dr. Cook's polar expertise and his unorthodox but effective treatments against scurvy, the *Belgica* expedition would have inevitably ended in a total loss of the crew, becoming a tragedy instead of a milestone.

Roald Amundsen will forever be remembered as the first man to reach the South Pole. At only 25 years of age, the Norwegian made full use of the Belgian Antarctic Expedition to prepare himself for the pursuit of his dream: the conquest of the South Pole. On the *Belgica*, he was hired as first lieutenant because Adrien de Gerlache was convinced by his qualities as an explorer – exceptional skiing skills and excellent health. Dr. Frederick Cook described Amundsen, the young lieutenant he met after embarking on *Belgica*, as "the most interested and interesting man I had ever known; he was reserved in manner but engaging and friendly in every action. During our long polar isolation, I came to understand his depth… no idea was too grand, no inspiration too small to capture our attention."[16] Dr. Cook and Commander de Gerlache likely recognized in Roald Amundsen the potential of a great polar explorer, for whom the *Belgica* expedition represented only the beginning of a remarkable journey.

Last, but not least of our heroes is Emil G. Racoviță, who was selected to participate in the *Belgica* Expedition upon the recommendation of Henryk Arctowski (the *Belgica* meteorologist). Racoviță had just defended a brilliant thesis on marine polychaetes and was a distinguished student of Henry Lacaze-Duthiers. He immediately responded, expressing interest in the expedition, requesting more details, but also explaining that the mandatory military service was the main obstacle preventing his participation. Everything about Racoviță, whom his friends affectionately called Raco, recommended him as the expedition's naturalist: he had worked at sea on laboratory ships in Banyuls-sur-Mer, was one of the first zoologists to dive underwater to study benthic fauna, and had developed new pelagic fishing techniques. Racoviță devoted himself entirely to the expedition's preparations – he traveled extensively across Europe to acquire glassware, specialized books, collection equipment, microscopes, and cameras. He contributed with a remarkable sense of organization, a deep passion for zoology, a tireless work ethic, and, equally important, good humor and camaraderie, qualities that his expedition colleagues deeply appreciated and acknowledged.

[15] Marinescu 1998, 80.

[16] Sancton 2023, 248.

A key encounter in a museum is the one with an original object – an artifact that carries the weight of history, one that has traveled through time to reach you, the visitor of today, bearing its story and waiting to share it. We, the curators of exhibitions, act as translators between the objects and artifacts of a past world and the visitors of the present, helping those silent witnesses speak across time.

Our exhibition brings together nearly all surviving original objects – over a century old – that once belonged to Emil Racoviță, the naturalist aboard the *Belgica*. Institutional and museum collections were consulted,[17] and the story was brought to life through the presence of the following meaningful artifacts, each carrying a message from the *Belgica*'s past (Figs. 3–5, 8). Here we will mention just a few objects, through which Racoviță wrote the history of the early twentieth-century polar biological research.

The microscope[18] (Fig. 9) and the custom-made binocular loupe were designed by the Carl Zeiss factory in Jena, Germany, especially for Emil Racoviță's laboratory on board the *Belgica*. This microscope and the binocular loupe were used to sort and analyze the specimens that generated the 1900 published pages of zoological and botanical findings published after the *Belgica* expedition.

The first two of the four *journals* from the Antarctic expedition, written by Emil Racoviță in French, were included in the exhibition, the journals documenting the events of the expedition as they unfolded; excerpts were published in the volume titled *Emil Racoviță: Jurnal – filmul marii aventuri polare*, edited by Alexandru Marinescu, Anca Bănărescu, and Alexandru Iftime. The first entry in the journal is dated 6 September 1897, when they were near Madeira Island in the Atlantic Ocean. Racoviță's journals include numerous sketches as well as impressions from his mini-expedition to Patagonia. The notebooks were small to easily fit in a pocket, and most entries were made with a pencil, which is water-resistant.

Significantly, the period from 12 February to 6 November 1898 is absent from Racoviță's notebooks. This gap is not a mere omission but a powerful form of evidence in itself; it is a documentary silence that testifies to the depth of the crisis during the polar night, a time when physical illness and mental anguish, as described by Dr. Cook, likely made the disciplined act of writing impossible.

The storage chest with glass tubes for preserving biological specimens arrived at the Antipa Museum in 1948, along with other documents and objects from the Antarctic expedition belonging to Racoviță.

The original registers containing the biological material collected during the *Belgica* expedition (Zoology T.I and Botany T.II) were included in the exhibition *The Dream of the First Polar Night*. They are part of the heritage of the Antipa Museum, resulting from an acquisition initiated by Dr. Victoria Iuga Raica in 1948. The registers are personalized, with a black cover bearing the inscription *Expedition Antarctic Belge – Registre des Séries Zoologie T.I.* and *Registre des Séries Botanique T.II.* The registers were ordered by Racoviță in Paris, of which he informed Commander de Gerlache on 10 November 1896.

[17] National History Museum of Romania; "Emil Racoviță" Institute of Speleology Cluj-Napoca; Romanian Academy Library, Cluj-Napoca Branch; "Ștefan cel Mare" Museum Vaslui; "Frederick A. Cook" Society, USA; Roald Amundsen's House, MiA – The Museums in Akershus, Norway.

[18] "Emil Racoviță" Institute of Speleology Cluj-Napoca.

A week later, in another letter dated 19 November, he communicated that the "register proofs for zoology" would soon be ready.

The polar explorer suit that belonged to Emil Racoviță is currently part of the collection at the National History Museum of Romania (Fig. 10). Racoviță's suit, similar to those worn by other members of the *Belgica* expedition, consists of a parka and trousers. The parka (anorak) is made of thick woolen cloth (khaki-colored broadcloth). The hood is lined with natural fur along the edges and fastens at the neck with a brown leather strap, sewn on one end and buttoned on the other. The sleeves use a similar fastening system, but instead of buttons, they have common metal buckles. The suit was donated to Antipa Museum in January 1948 by Emil Racoviță's family. In 1971, it became part of the Romanian Natural History Museum's collection.

Also on display are the very first photographs ever taken beyond the Antarctic Circle in the late 1800s (Figs. 3–5). The *Verascope* camera[19] comes from a French workshop, made in the nineteenth century by Jules Richard (1848–1930). The Mackenstein camera that belonged to Emil Racoviță is part of the collection of the "Emil Racoviță" Institute of Speleology, Cluj-Napoca. The Mackenstein company, officially known as Société des Etablissements Mackenstein, was a French manufacturer of cameras, active in the late nineteenth and early twentieth centuries. Founded by G. Mackenstein, the company was well known for producing stereoscopic cameras that captured 3D images on glass plates.

In the collections of the "Grigore Antipa" National Museum of Natural History, the photographic material obtained during the *Belgica* expedition is represented by a set of over 100 stereoscopic plates that captured images of the daily life of the expedition members, the ice shelf animals, the way the scientific staff collected data, as well as landscapes or icebergs surrounding the *Belgica*. The plates, measuring 45 × 107 mm, are packed in cardboard boxes and labeled with the name E.G. RACOVITZA and *Expedition Antarctique Belge* (1897–1899).

Spatial constraints and creative solutions

Given the chronic shortage of space for temporary exhibitions, implementing such a project at the Antipa Museum posed a considerable logistical challenge. The only available area suitable for hosting the exhibition was the mezzanine surrounding the central skylight, bordered by wall-mounted display panels. With coordinated efforts, three corners of this space were cleared to accommodate the exhibition. However, it is important to note that this area is part of a larger dioramic installation dedicated to ethnography and anthropology. This spatial and thematic overlap made visitor engagement more difficult, effectively turning the *Belgica* display into a "story within a story." The curatorial challenge, therefore, was to ensure that the visitors remained focused on the narrative of the *Belgica* expedition without being visually or conceptually distracted by the surrounding permanent exhibition.

Creating an exhibition inspired by the journey of the Belgica expedition has proved to be an extremely captivating and moving project. Through the perspective of the exhibits, *The Dream of the First Polar Night – Belgica, the Antarctic Expedition (1897–1899)* offered visitors the chance to see, for the first time, objects that bear the imprint of that extreme

[19] "Ștefan cel Mare" Museum Vaslui, Romania.

adventure and of the brave explorers who, despite the hardships, managed to make scientific observations that would mark their era.

To visually unify the exhibition space, we installed a one-meter-wide adhesive vinyl floor strip – an "ice band" that encircled all display cases and interactive stations in the central atrium, serving as a symbolic representation of the Bellingshausen Sea ice pack that imprisoned the Belgica for 13 months.

In order to bring to life the experiences and challenges faced by the explorers, as described in the journals of the expedition members, and inspired by evocative photographs, we proposed several scenographic elements meant to immerse visitors in the story of courage and survival of the 19 inhabitants of the *Belgica*, such as:

A glacier (Fig. 8) with deep crevasses and elongated shadows, dominated by shades of white, blue, and gray. We chose a realistic texture, visually almost harsh, to evoke a biting cold. The atmosphere sought to convey not only a sense of isolation against untamed nature but also the inescapable internal pressures aboard the ship. The despair was amplified by immediate, visceral stressors, such as the relentless rat infestation described by Racoviță – a constant, maddening presence that transformed the vessel from a sanctuary into a shared torment.

Alongside the glacier landscapes depicted in photographs, this scenic element was intended to induce an overwhelming sensation, where visitors might feel the temperature seemingly drop around them. Near the glacier, there is an installation featuring two figures in fur suits, equipped with snowshoes, an ice-cutting saw, hot tea, and a few packs of tonite, prepared for another exhausting day of work on the ice, to free the ship from the glacier's grip.

Racoviță's laboratory and *the officers' mess* are two other areas of interest and attraction, as they recreate – in a blend of artistry and science – the atmosphere on board the Belgica, based on photographs taken by the crew (Figs. 6–7). A few original objects, such as the woolen uniform representing Racoviță's polar explorer suit, the microscope and magnifying glass, specially ordered for the improvised laboratory aboard the *Belgica*, where the naturalist studied the first biological samples ever collected from Antarctic waters, served as the starting point for recreating the working atmosphere. The officers' relaxation area would not have been complete without the music box, the accordion, a glass of wine, or Nansen the cat – elements that temporarily soothed the crew's homesickness and sense of isolation. These details help engage visitors with the expedition's narrative.

A significant challenge for the crew was managing the rat infestation that inadvertently boarded during the final coal resupply. Racoviță's vivid accounts detail the ongoing struggle between these seemingly undeterred small mammals and the expedition members throughout the polar night. To authentically portray this aspect of the story, our scenographic recreations of the officers' quarters and Racoviță's laboratory incorporate taxidermied rats from the Antipa Museum's collection. Visitors particularly enjoyed discovering these cleverly concealed rats among the various exhibits.

Special attention was given to the selection of photographs. The black-and-white photos that enhance the visual communication of the exhibition are the first photographs ever taken beyond the Antarctic Circle – snapshots that reveal the cold, merciless beauty of the Antarctic landscape. Captured with rudimentary equipment at the end of the 1800s,

they are visual testimonies of that frozen world untouched by civilization and have the power to transport the public directly into the midst of endless ice expanses. This use of pioneering visual technology transformed the crew from historical figures into present witnesses, documenting a world previously unseen by human eyes and a technique hard to imagine by today's standards. In an interview published in February 1938, Dr. Frederick Cook spoke about his role as the official photographer of the expedition: "I have tried to indicate the problems of photography forty years ago and the conditions under which the work was done. The improvements in equipment – applied art and science of new techniques, and especially in the ultimate usefulness of results – are so vast that photography is now within its own sphere a tremendous field for genuine exploration."[20]

Public engagement and visitor experience

The exhibition was designed to foster emotional and intellectual engagement by combining historical narrative with scientific interpretation. Labels and panels were written in an accessible language, while remaining scientifically accurate. A primary tool for immersion was the historical photographs, which are more than mere illustrations. Of the over 200 stereoscopic photo plates included in the Racoviță family donation, 30 were selected, most of them depicting scenes from the everyday life of the *Belgica* crew. The curatorial choice aligns with Roald Amundsen's observation, made years after the *Belgica* expedition, that the human factor constitutes three-quarters of any expedition. The selected plates were reproduced as high-resolution prints exhibition panels, their exceptional clarity requiring only minimal digital restoration to remove the marks left by time and human manipulation on the original glass supports.

Personal artifacts belonging to Emil Racoviță – such as his microscope, handwritten notes (journals), the storage chest with glass tubes, the *Belgica* original register (Zoology and Botany), and the correspondence with crew members – were displayed to humanize the scientific legacy and connect visitors to the experience of the expedition. To bridge the past with the present, the exhibition encouraged visitors to reflect on topics such as environmental change, the evolution of scientific exploration, and the enduring fascination with Antarctica.

For the temporary exhibition, *The Dream of the First Polar Night – Belgica, the Antarctic Expedition 1897–1899*, three interactive digital applications were developed to deliver scientific content in an engaging and accessible manner. Original photographs taken by expedition members accompanied these. Additionally, the expedition maps created by the *Belgica* crew were transformed into multimedia tools, incorporating journal excerpts and archival images, designed to help modern visitors better relate to the challenges of a late nineteenth-century Antarctic expedition (Fig. 12).

One such application, titled *Belgica's Drift*, features an interactive version of the original navigational map. For each day when the crew managed to determine their position, visitors can access the corresponding fragments from their journals, paired with photographs captured during the expedition. A similar approach was used to recreate the maps of the Belgica Strait (De Gerlache Strait) and the Magellan Strait.

[20] Cook 1938, 92.

These Digital interactive platforms[21] also include seven audio clips narrated by an actor[22] and set against realistic background sounds, bringing visitors even closer to the atmosphere of the *Belgica* and immersing them in the emotional landscape of the voyage.

Two additional applications focus on the dramatic release of the *Belgica* from the grip of the Bellingshausen Sea ice and on the scientific outcomes of the expedition, showcasing the long-lasting value of its results in various fields. Furthermore, infotouch displays offer QR codes which, when scanned, allow visitors to listen to four podcasts[23] about the *Belgica* expedition, specially created for younger audiences and narrated in a child-friendly tone.

Among the educational programs developed in parallel with the exhibition (documentary viewings and educational workshops) was the event series[24] *Meet the Curator* – a set of thematic guided tours held within the exhibition space and addressed to adult audiences passionate about exploration and polar history (Fig. 13).

Exhibitions have the power to revive scientific memory by reconnecting audiences with forgotten discoveries, personal stories, and the material culture of research. The *Belgica* expedition, 125 years later, stands as a symbol of courage, scientific curiosity, and international collaboration in extreme conditions. Through carefully curated artifacts, original documents, and immersive interpretation, such exhibitions make past exploration relevant to contemporary questions, including climate change and human resilience. Looking ahead, thematic exhibitions focused on scientific exploration can serve as vital platforms for education, interdisciplinary dialogue, and inspiration for new generations of researchers and explorers.

Conceived as a traveling exhibition, *Belgica* was intended to reach a broad and diverse public across multiple locations. From the outset, the curatorial and design choices were guided by the need for mobility, flexibility, and ease of installation. The exhibition components – panels, scenographic reconstructions, and multimedia materials – were produced using modular structures that can be easily assembled, disassembled, and adapted to different spatial configurations.

The Dream of the First Polar Night – Belgica, the Antarctic Expedition 1897–1899 is currently on display at the National Museum of Transylvanian History in Cluj-Napoca and is scheduled to continue its journey to new destinations. The voyage of the *Belgica* expedition ended 125 years ago – yet the journey of the *Belgica* exhibition is only just beginning.

Final reflections

The exhibition *The Dream of the First Polar Night*, organized to mark the 125th anniversary of the *Belgica* expedition's return, aimed to present a pioneering expedition of overwhelming scientific significance through contemporary museum presentation methods. Through its narrative structure and multisensory approach, the exhibition

[21] The digital interactive platform was made by Carina Gabriela Stoica and Cătălin Gabriel Pîrvu.

[22] Audio voice clips: Valentin Panduru.

[23] Produced by the Polish Institute in Bucharest in collaboration with the "A Fost Odată" Association, and available at https://afostodata.ro/belgica/.

[24] A program that took place monthly in the Antipa Museum, from December 2024 to May 2025, featuring thematic guided tours based on the Belgica expedition, led by Oana Paula Popa, Ph.D., the curator of the exhibition.

brought visitors closer to the crew's lived experiences during the first polar night ever endured by humans south of the Antarctic Circle.

Over the six months it was hosted at the Antipa Museum, a key insight emerged: interdisciplinary collaboration and emotionally resonant storytelling greatly amplify public engagement. By exploring the fears, challenges, and resilience of the expedition members, visitors developed a deeper connection to both the scientific findings and the broader historical context of polar exploration. This exhibition thus serves as a valuable model for future thematic or traveling displays – especially those aiming to merge the history of science with immersive, experiential interpretation.

Building on this experience, we envision future exhibitions that continue this mission – perhaps one dedicated to Jacques-Yves Cousteau and the *Calypso*, whose legacy invites us to rediscover the ocean with the same wonder and responsibility.

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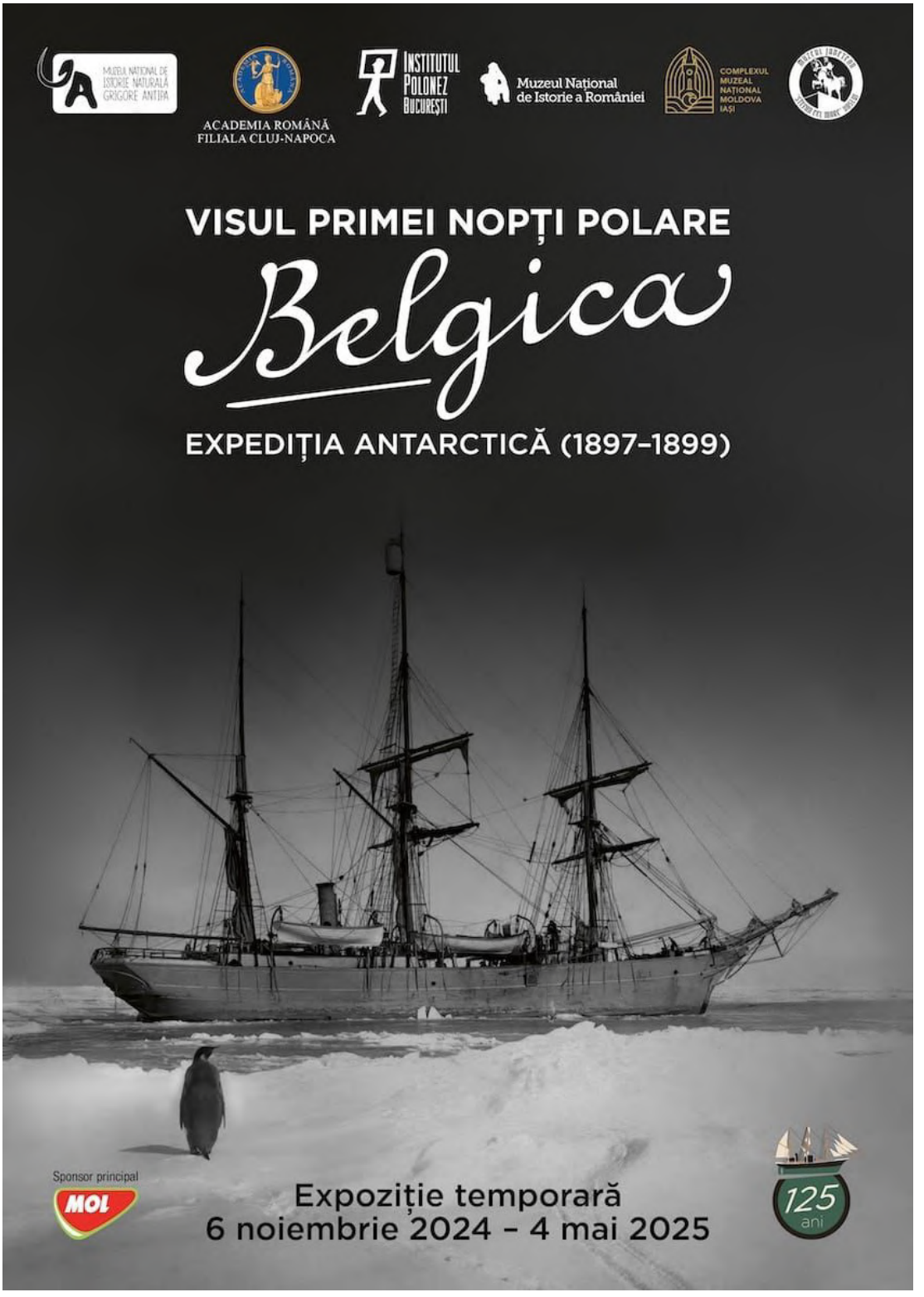


Fig. 1. Visual of the temporary exhibition *Dream of the First Polar Night: Belgica, the Antarctic Expedition (1897–1899)* ("Grigore Antipa" National Museum of Natural History, Romania).



Fig. 2. Moonlight photograph of the Belgica from 20 May 1898, taken by Dr. Frederick Cook with an exposure of 90 minutes, illuminated by magnesium powder flashlights (courtesy of Frederick A. Cook Society, USA).



Fig. 3. View of the entrance to the temporary exhibition *Dream of the First Polar Night: Belgica, the Antarctic Expedition (1897–1899)* (photo by Andrei Ștefan).



Fig. 4. View of the temporary exhibition *Dream of the First Polar Night: Belgica, the Antarctic Expedition (1897–1899)* (photo by Andrei Ștefan).



Fig. 5. View of the temporary exhibition *Dream of the First Polar Night: Belgica, the Antarctic Expedition (1897–1899)* (photo by Andrei Ștefan).



Fig. 6. Emil Racoviță's Laboratory – a scenic reconstruction from the exhibition *The Dream of the First Polar Night – Belgica, the Antarctic Expedition (1897–1899)* (photo by Andrei Ștefan).



Fig.7. Officers' mess on the Belgica – a scenic reconstruction from the exhibition *The Dream of the First Polar Night – Belgica, the Antarctic Expedition (1897–1899)* (photo by Andrei Ștefan).



Fig. 8. View of the temporary exhibition *The Dream of the First Polar Night – Belgica, The Antarctic Expedition (1897–1899)* (photo by Andrei Ștefan).



Fig. 9. Emil Racoviță's microscope from the Belgica Expedition, "Emil Racoviță" Institute of Speleology, Cluj-Napoca (photo by Andrei Ștefan).



Fig. 10. Emil Racoviță's polar explorer suit, National History Museum of Romania (photo by Andrei Ștefan).



Fig. 11. Replica of Nansen the cat, the expedition crew's beloved mascot (photo by Andrei Ștefan).



Fig. 12. Visitors interacting with the digital platform developed for the temporary exhibition ("Grigore Antipa" National Museum of Natural History).



Fig. 13. Highlights from the guided tours conducted by Oana Paula Popa, Ph.D., curator of the exhibition ("Grigore Antipa" National Museum of Natural History).

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MUSEUMS AND NATION-BUILDING. DILEMMAS ON THE MARGINS OF A TEMPORARY EXHIBITION

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Abstract: The paper explores the dilemmas faced by curators in planning a temporary exhibition opened at the Mureș County Museum in December 2025. As the subject of the exhibition, namely, nation-building and the role of museums, is relatively abstract, the challenges are greater and more complex than those of a typical temporary exhibition. The permanent exhibitions organized by the Mureș County Museum and its nineteenth- and twentieth-century predecessors serve as the starting point of our research in an attempt to explore why different nation-states and their elites felt the need to establish museums and why they created a particular type of museum (e.g. industrial museum, art gallery, archaeological and ethnographic museum, etc.). The research and the approach itself are external and top-down; our aim is to unravel the underlying intentions. In the first half of the paper, we will outline the development of museums in Transylvania and Romania, to show that this relationship has always been an integral part of the functioning of museums, even if it was not explicitly perceived by the visitor. We will then discuss the dilemmas posed by the concept of the planned temporary exhibition.

Keywords: museum, nation building, nationalism, permanent exhibition, Mureș County Museum

Rezumat: Studiul prezintă dilemele cu care se confruntă curatorul în procesul de pregătire a expoziției temporare vernisată la Muzeul Județean Mureș în decembrie 2025. Deoarece tema expoziției – procesul de construire a națiunii și rolul muzeelor – este relativ abstractă, provocările sunt în multe privințe mai mari și mai complexe decât cele ale unei expoziții obișnuite. Tema este ilustrată printr-un exemplu târgumureșean, și prezintă muzeele din oraș și expozițiile de bază ale acestora în cursul secolelor XIX și XX. Obiectivul nostru principal este explorarea motivațiilor din spatele înființării de noi instituții muzeale, în diferite epoci, și în special a preferinței pentru anumite tipuri de muzee (industriale, de artă plastică, de arheologie, de etnografie etc.). Perspectiva este una exterioară și de sus, axată pe clarificarea intenției de bază. Prima parte a lucrării schițează evoluția muzeelor din Transilvania și România, pentru a demonstra că această relație a făcut întotdeauna parte integrantă din funcționarea muzeelor, chiar dacă nu a fost percepută în mod direct de vizitator. Dilemele din jurul conceptului expozițional vor fi discutate în cea de-a doua parte.

Cuvinte cheie: muzeu, construirea naţiunii, naţionalism, expoziţie de bază, Muzeul Judeţean Mureș

An outline of the development of museums in Transylvania and Romania in the nineteenth and twentieth centuries

Collecting works of art was already characteristic of medieval rulers, but it was more a strategy of tesauration than of protecting valuables. The emergence of museums as we know them today is closely linked to the spread of the Enlightenment and the great

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French Revolution, when the royal private collection was "nationalized" and the Louvre opened as the first fully public museum. Although this moment is considered the birth of the museum idea, the concept, which highlights the importance of public spaces and the recognition of the fine arts as a distinct cultural category, began to spread in practice during the nineteenth century. This can be called the museum age.[1]

Another way of creating museums was through the voluntary donation of private collections, such as in the cases of the British Museum, which opened in 1759 thanks to the private collection of Hans Sloane, or the Hungarian National Museum, based on the donation of Ferenc Széchényi. Museums were established under the influence of the Enlightenment and the embourgeoisement, as a means of improving society through education. However, they also served another purpose: to strengthen and nurture national consciousness. The museum also played a pioneering role in the democratization of society: whereas in the eighteenth and nineteenth centuries free interaction between social groups was strictly regulated, museums were open to women, children, and workers from the very beginning, although this was not a common occurrence. By reducing social distance, they aimed to educate and improve so that the lower social groups could learn and adopt bourgeois customs and virtues, including cultural consumption.[2] By treating them as a united group, an imagined community, they also felt that they belonged to the same nation.[3] As museums opened in the second half of the nineteenth century, exhibitions began to be set up, with objects displayed according to professional criteria, with an emphasis on visibility and explanations. In 1911, the British Museum published its first exhibition catalogue and organized daily guided tours.[4]

In this process, the Austro-Hungarian Monarchy, which had consolidated in a new framework by the nineteenth century, represented an intermediate type between the Western and Eastern models. Although it was an empire, there was little imperial consciousness or common identity. It was represented only by certain institutions (e.g., the army) and a narrow elite, its true embodiment being the ruling family.[5] As a result, there was no single institution that was universally regarded as the central (national) museum. The Kunsthistorisches Museum, which opened relatively late, in 1891, represented the ruling family and its patronage of the arts rather than imperial unity or art.[6] The Kunsthistorisches Museum was thus an exception in the relationship between museums and nation-state building, seeking to establish an imperial model that was unusual for its time, and was based on dynasty rather than nation.[7] Like the Kunsthistorisches Museum, the Hungarian National Museum was a particular type of institution. It was one of the first museums in the region to be founded by a private donation, and officially became a national institution in 1807. Initially called the Hungarian National Depository, it was intended to be both

[1] Rampley, Prokopovich, Veszprémi 2021, 1.

[2] Ébli 2006, 82.

[3] Rampley, Prokopovich, Veszprémi 2021, 2.

[4] Koltai 2011, 14–20.

[5] Varga 2017, 104–115.

[6] The collection had outgrown its former home, the Belvedere Palace. The new site was originally built as a museum, but the family retained control of the institution until 1918.

[7] Rampley, Prokopovich, Veszprémi 2021, 24.

a leading institution for an "ethnic community" and a promoter of national identity.[8] Originally, the National Museum was an encyclopedic museum. It collected everything, not just objects related to the history of the Hungarian nation, and this was the approach of its first director, Ferenc Pulszky, too. It was an institution for the Hungarian nation rather than a national one.[9]

For these reasons, the Austro-Hungarian Monarchy can be regarded as an exception, where the leading role in founding museums was played by the regional and local elites – mainly the aristocracy –, rather than the state. By the time the Kunsthistorisches Museum opened, the more important provinces and cities of the empire had already established their own museums,[10] so Vienna's leading role was not evident. In the Monarchy, it was the British model that was more widespread,[11] and private collections were often donated for the purpose of creating so-called Landesmuseums, which often called themselves national museums, as their collections were devoted to local specificities, mainly prehistory/history, ethnography, and natural history. These, in turn, were closely linked to local national movements and embodied the aspirations for provincial autonomy. The scientific associations of the three ethnic communities of Transylvania and the museums they subsequently created fit this pattern.[12] In the case of the Hungarian community, however, the Transylvanian Museum Society (EME) was unable to meet the scientific and cultural needs of the entire ethnic community, so each community tried to express them locally. However, the question arises: whose museum was the EME Museum – was it an extension of the Hungarian National Museum or a representation of the Hungarian population in Transylvania? Additionally, it raises the issue of the extent to which the artifacts can be deemed solely part of Hungarian history versus their representation of the broader history of Transylvania, particularly the regions that were incorporated into Romania post-1918. The Astra was established concurrently with the Transylvanian Museum Society, yet its history and ethnography museum did not officially open until 1905. Similar questions emerge in its case: to what degree can it be classified as a national museum when the inscriptions lack the term "national," and how does it fit within the context of Romanian national museums? Furthermore, to what extent are its artifacts merely components of Romanian national history, and how do they reflect the comprehensive history of Transylvania? Museum curator László Fejérpataky describes it as a "house of public culture of the Vlachs"[13] where the inscriptions were exclusively in Romanian.

The 1867 Compromise provided a new impetus for the establishment of museums, with the emergence of county and city museums, in which the local community, associations,

[8] Ébli 2006, 79.

[9] Rampley, Prokopovich, Veszprémi 2021, 32.

[10] Regional museums were established in 1817 in Lviv, in 1818 in Prague, in 1846 in Zagreb, in 1862 in Warsaw, in 1876 in Krakow. L. Nagy 2019, 20. After 1918, these institutions became national museums of the newly created nation states, without being reorganized. The Brukenthal Museum, which was open to the public from 1817, but was primarily linked to the Saxon population, is part of the same process.

[11] The situation in Romania is peculiar in that the National Museum was founded in 1864 on the initiative of the state, but was based on the private collection donated in 1834 by Mihalache Ghica, brother of the then ruler Alexandru Ghica, and subsequently enriched by private collections. Berger 2015, 20.

[12] Verein für Siebenbürgische Landeskunde, 1840; Erdélyi Múzeum Egyesület, 1859; Asociaţia Transilvană pentru Literatura Română şi Cultura Poporului Român, 1859.

[13] Fejérpataky 1908, 229–230.

foundations, churches, and individuals generally played an important role. The spread of archaeology also increased this need, as the objects discovered needed managing.[14] The aim of the associations was usually to write the historical monograph of the county or town and to establish a local museum. All the associations considered themselves part of Hungarian scholarship, and their activities aligned with the Hungarian national discourse, but there was a huge fluctuation in the quality they provided. None of their members were usually qualified, but respected members of the local elite, such as the lord lieutenant, the mayor, the church magistrate, or the college teacher, gave these associations a certain prestige. During the dualist period, nearly 90 museums were established in Hungary, 38 of them by associations, 16 by municipalities, nine by the state, eight by individuals, six by counties, and seven by churches.[15] In Transylvania, 13 museums were founded by county authorities.[16] Bálint Varga classified the counties where neither a historical association nor a museum had been established into three categories. These were either small, peripheral counties with no financial background, or counties close to larger centers where the center could meet the cultural and representational needs, or communities with former privileges (e.g. Szeklers, Saxons) who felt that the administrative reform of 1876 and the division of their former territory was a measure imposed on them and created their own museum to represent the whole community.[17] Mureş-Turda, as a Szekler county, partly supports and partly contradicts this view. Neither a historical society nor a museum was established here, but there was both an industrial museum and an art gallery in Târgu Mureş. Both were established on the initiative of the state and were less representative of the local community.

Beyond the county level, there was another institutional network, but its members were not classified as museums, because they were not open to the public. These were the college collections in all the major cities. As early as the eighteenth century, *Ratio Educationis* required schools to keep demonstration equipment, and over time, these were supplemented by other objects, mainly numismatic, guild, and archaeological items. In Transylvania, the largest collections were held by the colleges in Aiud and Blaj, but the Calvinist and Roman Catholic colleges of Târgu Mureş also owned such collections.[18]

[14] Koltai 2011, 17.

[15] Bodó 2016, 27.

[16] Lower Fehér County: Alsó-Fehér Megyei Történeti és Régészeti Egyesület Múzeuma [Museum of the Lower Fehér County Historical and Archaeological Society], Alba Iulia (1887); Arad County: Közművelődési Intézet [Institute of Public Culture], Arad (1881); Bihor County: County Museum, Oradea (1871); Braşov County: Burzenländer Sächsisches Museum, Braşov (1908); Hunedoara County: County Museum, Deva (1882); Cluj County: Erdélyi Múzeum, Cluj-Napoca (1859); Maramureş County: County Museum, Sighetu Marmaţiei (1873); Satu Mare County: County Museum, Carei (1901); Sibiu County: Brukenthal Museum, Sibiu (1817); Solnoc-Dăbâca County: Szolnok-Doboka Megyei Irod. Tört. Ethn. Egylet Múzeuma [Museum of the Society of Literature, History and Ethnography], Dej (1899); Timiş County: Délmagyarországi Történeti és Régészeti Múzeum [Museum of History and Archaeology of Southern Hungary], Timişoara (1872); Odorhei County: County Museum, Odorheiu Secuiesc (1913). Varga 2014, 183–186.

[17] The Brukenthal Museum and the Saxon Museum of the Burzenland, the Szekler National Museum of Szekler Land. The only exception is the Odorhei County Museum (1913), which is mainly linked to Rezső Haáz. Varga 2014, 183–187. Varga explains the lack of monographs on the Szekler counties in the same way: they were considered to be represented by Balázs Orbán's work.

[18] Petranu 1922, 39.

The industrial museums represent a distinct category of nineteenth-century institutions, which were closely associated with the process of nation-building, albeit with a focus on modernization. The prevailing view of the era suggested that a national community could be fostered through education and upbringing, as well as through the cultivation of public taste.[19] In today's terms, these institutions cannot be classified as museums in the traditional sense, as their objective was not to create, preserve, and exhibit collections, but rather to function as a type of industrial fair showcasing new products. While state involvement in other museum types was minimal, all the institutions established in this context were initiated with state support and quickly transitioned to being fully state-operated. Each industrial museum was housed in its own building, a rarity for that time. Following the establishment of the Museum of Technology and Industry in Budapest in 1883, the Industrial Museum in Târgu Mureș, founded in 1886, became the second museum to be created at the national level, representing one of these institutions.[20]

History as a professionalizing science emerged simultaneously with political nationalism. Civil historiography emerged as a national science, alongside art history and archaeology, and took on the task of founding and giving substance to the political objectives formulated by the elite. Although it had certain antecedents, be they religious, ethnic, or territorial, nationalism came into being as a result of the Enlightenment, emerging in our region during the nineteenth century. It was the task of historians to trace the changes in society. They replaced secularization with a new religion, nationalism.[21] Unlike the representatives of the Enlightenment, the Romantic historians no longer wrote for the elite. They thought in terms of community, felt part of it, and wanted to capture the community's past[22] from the beginning in a narrative, linear unit, highlighting individuals, events, and places. The idea also had a clear political purpose: to create a sense of history, providing community members with a new code system in which they could identify themselves. It also meant a new cultural form in everyday life, which met the objectives of the nationalist elite and the needs of the community.[23] Historians created their works within a national framework, trying to adapt the national space to the boundaries of the present state, and if there was none, they tried to find the glorious moments of the community's past, and to adapt the data to the current situation. By making the community the basis of their investigation, temporality came to the fore. They described the development of the national community, its becoming, in terms of the law of nature. Continuity, myths of origin, and development over time played an important role in these constructions.[24] It was the task of historians to define the characteristics and qualities of the nation.[25] However,

[19] Székely 2017, 12–20.

[20] Székely 2015, 189.

[21] According to this view, the supreme power is not divine, but derives from the people, and religion is replaced by myths and collective identity, as revealed by historians. Hutchinson 2017, 25.

[22] Whereas Enlightenment historians studied history in a philosophical framework, Romantic historians discussed it in an empirical, historicizing framework that seemed more professional. Baár 2013, 47–53.

[23] Gyáni 2017a, 11–18.

[24] Gyáni 2017b, 13–14.

[25] Smith 2000, 5.

the uncovered past had to be animated for cultural nationalism, and this was the task of commemorations of historical events, or museums built on historical sites.[26]

The framework outlined above applies, with minor or major modifications, to all East-Central European nationalisms, including Hungarian nationalism. From the perspective of our topic and as a forerunner of twentieth-century developments, we will now illustrate this process through the example of Romania. The above-mentioned features are evident in the birth of the Romanian national consciousness and of the Romanian state, both of which are typical results of the political and cultural nationalism of the nineteenth century.[27] As the Romanian community did not benefit from continuity, statehood, or territorial unity, the role of nineteenth-century historians was crucial in creating and shaping all this. The process began with the 1848 generation, when most historians could not yet be considered professionals, as they mainly published newspaper articles and sources.[28]

In Lucian Boia's view, the *Junimea* school and the historians associated with it were the first to reach the level of professionalization in Romanian historiography by the end of the nineteenth century, although their work was not the most influential. The main aim of nineteenth-century historiography was to frame the nation's history and to create myths of origin.[29] Although the myth of continuity and Roman origins was already known from medieval chronicles and later established by members of the eighteenth-century *Transylvanian School*, it was at this time that it became widely-known. Although not prominently, the Dacians were already mentioned in nineteenth-century Romanian historiography, notably in the works of C. Boliac and G. Tocilescu. At the time, the Roman element was considered dominant. In agreement with Boia, we would like to underline that the construction of origin myths is a natural process, characteristic of all nations. Most of them crystallized during the nineteenth century through the work of historians. The myth of origin is not based on objective facts, but on what the community accepts and feels to be its own.[30] It changes and evolves, but there is no point in arguing about it. It is important, however, to treat it as a myth in everyday life.

The peace treaty that ended the First World War brought about a change in the life of museums. The empires vanished and were replaced by what were now nation-states. The diversity of the former imperial, national, regional, and local museums also disappeared, and museums adapted to the new situation and the idea of the state: the former encyclopedic museums became increasingly national and nationalist. While the Western European museums focused primarily on the trauma and losses of war, the Eastern European museums began to establish and serve the ideology of the new state formation.[31]

[26] Hutchinson 2017, 26.

[27] Hugh Seton-Watson distinguished between "old, continuous nations" (e.g. the English, the French, but he also included the Hungarians) and "new nations," which he saw as products of nineteenth-century nationalism, including the Romanians. Smith 2000, 16.

[28] According to Anghelinu, the standard of Romanian historiography in the mid-nineteenth century did not reach the level of the *Transylvanian School* of the eighteenth century. Anghelinu 2014, 79–80.

[29] The purpose of this paper is not to critically examine, refute or confirm these myths of origin, but simply to state them as fact.

[30] Boia 2005, 80–92.

[31] Within the framework of the new state, the aim is to emphasize the naturalness, even the regularity, of the new borders, based on social development and natural conditions. Apor 2015, 37–39.

History, archaeology, and ethnography became dominant in the larger museums, and nationalism even more pronounced. As a result, they closed themselves off, which did not help their development. The Madrid Conference of 1934 was a milestone in the history of museums and museology, marking the end of this development. It dealt with issues such as the parameters of museum buildings, lighting, the painting of exhibition spaces, and the way in which objects were displayed.[32] Romanian national ideology in the interwar period was defined by the difficulties arising from the state's territorial gains. The increase of the country's territory to several times its previous size and the completion of the national unification, which had been in the making for generations, did not bring a period of calm and prosperity, but presented the Romanian governments of the time with seemingly insurmountable challenges and tensions that could not be resolved quickly and satisfactorily. The peace treaty also transformed political life. The system of alternation ceased to exist, and the Liberal Party came to dominate. All major legislation, including electoral, administrative, land reform, and education was passed under their rule. This in itself caused tension and increased the frustration of the Romanian elite from the newly annexed territories. A political conflict between the elites of the Old Kingdom and the newly annexed territories was therefore a given. There were also differences in mentality and in the attitude towards democracy. All these fault lines were aggravated by the equally unsolvable situation of the ethnic question.

In Boia's opinion, the professionalization of Romanian historiography, which seemed to be underway at the beginning of the twentieth century, was interrupted in the interwar period by dilettantism. Nation-building did not offer new myths, but only developed and supplemented the old ones, adapting them to the new framework and borders. The most characteristic feature was the turning away from Western values, the intensification of the myth of being the first people in the region, and orthodox spiritualism.[33] The most influential monograph of the period was *Getica* by the archaeologist Vasile Pârvan, which brought the Dacians into the mainstream of national myth.[34] He portrayed them as state-builders, the ancestors of the Romanians, who contributed to ethnogenesis through their race, and the Romans through their civilization.[35] It is important to stress that before Pârvan's work was published in 1926, there had been no major excavations on the civilization of the Dacian population, so he based his work essentially on the works of ancient authors. The significance of his work lies rather in the fact that the borders of the former Dacia coincided with those of Greater Romania, and in the fact that he attributed equal importance to the Dacian and Roman populations in the formation of the Romanian nation.

There were 27 museums in Transylvania at the time of the change of power, but only two of them, the industrial museums in Cluj and Târgu Mureș, were state-owned; the others

[32] Tzigara-Samurcaș 1934, 976–983.

[33] Especially the ideas of Nichifor Crainic and Nae Antonescu, but also those of Lucian Blaga and Mircea Eliade.

[34] Pârvan on the importance of studying prehistory: "The discovery of prehistory is possible through protohistory, because on the path to anonymous prehistory lived the known and documented ancestors, the Dacians." Cited by: Bărbulescu 2022, 251.

[35] Boia 2005, 109–110.

were run by associations, counties,[36] or cities.[37] Of these, 12 received state aid in 1913 and 18 in 1918, i.e., they accepted state supervision.[38] The regime's aim was to establish museums in every county, but this had little practical effect.[39] The majority of the museums created during the dualist period survived, if only because of their "Hungarian" historical character, but were unable to develop further, as the associations behind them either disappeared or were financially ruined by the war, and the new administration did not feel a sense of ownership, even though the former state and county/town institutions were automatically transferred to Romanian state ownership. The focus shifted to archaeology, as this was the easiest field in which to build new collections. Accordingly, the new museum exhibitions were expected to present the specificities of the region from prehistory to the present.[40] As in the case of archaeology and heritage conservation, the professionalization of museums continued, with the adoption in 1932 of a new law on the operation of museums and libraries, which also emphasized the importance of the ancient cultural heritage.[41]

The communist period in Romania is usually divided into four phases: 1944–1948, the years of transition, when the Romanian Communist Party came to power; 1949–1964, the classical Stalinist or internationalist era of communism in Romania; 1965–1974, the period of destalinization, the liberal era of communism in Romania; 1974–1989, the personal cult of Ceaușescu, also known as the nationalist era of Romanian communism.[42]

The aim of nationalizing the institutions and placing them openly at the service of the Party was to completely transform society and create a new man and a socialist society, which was never achieved. The institutions were supposed to play two roles: to contribute to the creation of the "new man" through their propaganda, on the one hand, and to integrate the population into socialist society, on the other. A cultural revolution, which meant bringing cultural institutions under Party control and making a radical break with the ideology of the previous era, was believed to be the only option. In 1948, the Party's Propaganda Department was established with the task of developing the Party's ideology and overseeing its implementation through cultural institutions. All this took place in a backward, rural society with no tradition of a left-wing or labor movement. Change was only possible through the radical replacement of old elites, the complete rejection of old values and the imposition of a new ideal. In addition to ideological repression and social terror, the communist period can also be interpreted as a continuation of social reforms, particularly in the areas of literacy, industrialization and urbanization. The 1950s saw the emergence of no elite in the traditional sense, the former elite being replaced by an equally narrow party elite, contrary to the propaganda proclaiming the power of the working

[36] He lists nine museums. Petranu lists the Târgu Mureș Picture Gallery as a county museum, although it has always belonged to the city.

[37] Three museums are listed here.

[38] Petranu 1922, 40–45.

[39] One of the exceptions was Mureș-Turda County.

[40] Petranu 1922, 42.

[41] "Anything that can shed light on and illustrate the past and the development of our civilization from prehistoric times to the present day: prehistoric artifacts of all kinds, Greco-Roman or medieval barbarian objects and inscriptions, manuscripts and prints, coins of all kinds…." Cited by: Bărbulescu 2022, 230.

[42] From the point of view of the minority policy of the period, this may vary, or sub-periods may be divided further. For the periodization, see: Novák 2017, 8.

class.[43] Moreover, Romanian society had always been attracted to a strong state, so the establishment of a party dictatorship was welcomed by some, either out of conviction or opportunism.[44]

The RCP appropriated not only the institutions but also the interpretation of the past, leaving both historiography and archaeology vulnerable. The internationalist phase of Romanian communism – especially the late 1940s and the 1950s – was the most alien of all the periods.[45] Previously, the only accepted interpretation of the past, albeit a broad one, had been the nationalist discourse, and historiography had aimed to create a national past and provide a guide for the present. This period rejected all this and aimed to outline the path to communism as a historical necessity. The idea of a national past and unity was completely eclipsed, as were the myths associated with it, and replaced by notions such as the development of the means of production, historical materialism, class struggle, exploitation, peasant revolts, workers' strikes and, of course, Romanian-Slavic relations.[46]

There was a lack of specialists in all fields: neither the Party nor the academic world provided ideologically qualified scholars. The best Romanian historians and archaeologists met different fates in the mid-1940s. Some were professionally incapacitated, perhaps even imprisoned; others emigrated; while a small group stayed on to serve party interests, either out of opportunism or out of a realistic awareness of the situation.[47] The Academy was reorganized in 1948, with only 1/3 of its members remaining in office and 66 new members appointed by presidential decree.[48] The new members were mainly historians who had studied in the Soviet Union, with Mihail Roller playing a prominent role.[49] In 1947, he wrote the first Marxist summary of the history of Romania,[50] which served as the basis for secondary and university education until the late 1950s. Following the Soviet model, the country's history was completely reinterpreted, the nationalist dimension disappeared, and the earlier continuity theory was pushed into the background. The key elements that would determine the interpretation of history as a whole began to emerge. The main chapters of the book, such as primitive communities, slavery, feudalism, capitalism, and socialism, were all reflected in the permanent exhibitions of museums. At that time, it was still possible to publish academic works, although more and more topics were becoming

[43] Boia 2005, 72.

[44] Anghelinu 2014, 175–178.

[45] The unification of 1859 was presented as the creation of a larger internal market, and 1918 as an imperialist territorial conquest, both aimed at increasing social exploitation. Boia 2005, 171.

[46] The ideal of the era was the 1848 revolutionary Nicolae Bălcescu, whose early death left his oeuvre open to interpretation. That is why his face appeared on the highest denomination Romanian banknote. Boia 2005, 283.

[47] Boia 2005, 72.

[48] Anghel 2019, 463. Between 1948 and 1965, the award of doctorates was also suspended. Bărbulescu 2022, 289.

[49] Roller was a member of the illegal communist movement between the two world wars. He went to the Soviet Union in 1940 and returned in 1945 as a follower of Ana Pauker. From the late 1940s he headed the Party's propaganda department and textbook publishing. He became an academic in 1949 and director of the RCP's Institute of History in 1955. Bosomitu, Burcea.

[50] The Hungarian parallel to Roller's endeavor was Erik Molnár, who tried to replace the nationalist framework with the notion of class. Gyáni sees nationalist historiography as a methodological historiography that seeks to transcend the national framework. Gyáni 2017a, 22.

politically sensitive. For historians, it was sufficient to include quotations of Marx, while archaeologists opted for an over-emphasis on the typology of archaeological objects.[51]

In the post-1945 period, museums in Romania had to operate in a completely different environment, as the (party) state openly regarded them as servants of its interests. Most of the Transylvanian museums played no role during the transition, as they were inactive between 1944 and 1949, with their collections stored in warehouses. Paradoxically, the museums were one-sided victims of the 1948 nationalization, but also forced beneficiaries of the private or institutional collections that came into their possession. When they began to operate, however, they found themselves within the increasingly restrictive framework of an established Stalinist party-state. One of the main features of this period was the ideological uncertainty, the absence of an old elite or the "uneducatedness" of the new elite at local level. This had a major impact on museums, especially their basic exhibitions, which had to be constantly reorganized according to the instructions of the moment. The new cultural elite had a dual responsibility: to satisfy and represent the ideological demands of the Party (whether motivated by conviction or opportunism) and, at the same time, to cultivate traditional culture under the banner of "progressive traditions." The difficulty lay in that the definition of "progressive tradition" was unclear, and the Party's ideology and perception of it changed several times. This led to a division in consciousness, as party propaganda opposed popular and religious traditions, labeling them as religious, mystical, or nationalistic, while simultaneously promoting specific aspects of the same culture.[52]

For historiography and museology, the internationalist era, highlighted by Roller's work, was the most alien period, which sought to break radically with all previous eras, providing no guidelines, only the loyal following of the Soviet model, unadaptable to the Romanian conditions. The Soviet museums, with their ideological rather than object-centered orientation, were the model to follow. With the focus on the "new man" and on development, objects were subordinated to ideology.[53] In 1948, a Soviet-Romanian museum was established in Romania, which served as an example for other museums. However, the collections of Romanian museums were inadequate for displaying the achievements of communism, mainly because they had no related objects. In line with the communist interpretation of history, exhibitions focused on man and the development of the means of production. In the first decades, however, only prehistoric and ancient archaeological artifacts were available, so the exhibitions in the late 1940s and 1950s were limited to prehistory and antiquity. In the 1960s, the feudal period was added, and by the 1970s, specialists managed to build up a collection related to the labor movement and the Communist Party. From the 1980s, this section was constantly expanding and growing more prominent, with the Ceaușescu couple playing a significant role.

The nationalist period, known as the third phase of Romanian communism, is usually dated from the early 1970s, from the consolidation of Ceaușescu's power and the proclamation of the Small Cultural Revolution in 1971.[54] From the mid-1980s, the regime

[51] Bărbulescu 2022, 291.

[52] Novák 2016, 743–746.

[53] Şişcanu 2019, 171–190.

[54] From the mid-1970s, the cult of personality extended to Ceaușescu's wife Elena, who held an increasing number of party and state posts.

became an increasingly closed, ideologically radicalized cult of personality, with a renewed tendency towards repression. It was at the 9th Party Congress in 1974 that the transition to a new stage in the development of the socialist nation was announced, meaning further radical social transformation (forced industrialization, village restructuring), ideological rigor, a narrowing of cultural life, and tighter censorship, all this combined with increasingly difficult living conditions. The economic crisis of the early 1970s eroded the previous Stalinist model of planned economy, and the regime rigidly resisted economic reform, even planning to repay the country's debt in 1981 in order to increase its perceived sovereignty. Living standards declined, public services deteriorated, and wages fell. From the mid-1980s, cultural propaganda and a revival of national feeling were intensified to counteract the serious economic situation. To this end, a series of events were organized, including the launch of "Cîntarea României" in 1976,[55] which was co-organized by museums. One of the most extreme effects was the so-called "protocronism,"[56] also based on the Soviet model, according to which all major historical events were linked to the Romanian people, who were the first to discover and apply anything of importance.[57] The increase in ideological pressure naturally had an impact on science and museums, culminating in the 1974 Party Program, which began, uniquely, with a historical introduction. The 25 pages took the reader through Romanian history from prehistory to the present, with an emphasis on the Dacians and the history of the RCP.[58] Until 1989, this was the guideline for interpreting Romanian history, and was regularly discussed and commented on at party meetings, historians' conferences, and in museums. According to this concept, Romanian history could be described as a single arc of continuity,[59] unity, continuous struggle,[60] and independence, with actors fighting for national unity. Its predetermined evolution was to culminate in the creation and leadership of the RCP.[61] All this was not entirely new, evolving from the

[55] Novák 2017, 17–33.

[56] It dates back to the literary critic Edgar Papu's commissioned work *Protocronismul românesc* (1974), in which he rejected Western models in Romanian literature. Verdery 1994, 161.

[57] As a result, the Horea uprising became a forerunner of the French Revolution, the Bobâlna uprising became a revolution, and Mihai Viteazul a forerunner of nationalism. Boia 2005, 87.

[58] This deeply reflected Ceaușescu's Stalinist convictions about the role and purpose of historiography. In 1933, Stalin declared that historiography was nothing more than politics transposed into the past. Ceaușescu's view of historiography in 1975: "We must get rid of the anarchic, petty-bourgeois mentality which promotes that questions of history are strictly professional. They are problems of communist theory and ideology and can only be dealt with by those who have mastered and applied the communist ideology and world view" (Velimirovici 2015, 188–195). In 1983, Ceaușescu's speeches on history were collected in a volume. Its ten-page bibliography contained only Ceaușescu's works. Verdery 1994, 244.

[59] "… The conquest of Dacia and its transformation into a province of the Roman Empire, with all its negative aspects, led to the fusion of the two civilizations, bringing new economic and social prosperity and influencing the subsequent historical development of society as a whole in this geographical area" (*Programul PCR* 1975, 29).

[60] "… the whole history of the Romanian people is a history of ceaseless class struggles, of the struggles of the masses for freedom and social justice, for the defense of national existence and independence, for progress and civilisation" (*Programul PCR* 1975, 28).

[61] "… The work of building socialism is a living proof that our Party has honestly fulfilled its role as the leading political force of the nation, has creatively applied the general laws to the specific circumstances in Romania, and has united the efforts of the whole people in the struggle to build the new world on the basis of its Marxist-Leninist policy. The experience gained by the Romanian Communist Party and our people in

views and myths of the mid-nineteenth century. The Dacians, the medieval princes and Avram Iancu, Horea and Tudor Vladimirescu came into the spotlight.[62] The main novelty was that the history of the RCP and the history of the Romanian people could no longer be separated.[63] Ceaușescu was considered to be a direct descendant of King Burebista[64] of Dacia and the medieval princes. Historians only had to repeat or creatively adapt this idea. The final step in integrating local museums into the party propaganda apparatus began in 1972, with the creation of the Museum of History of the Socialist Republic of Romania. Its collection was assembled from the most valuable objects of local museums, with no room for objection on their part.[65] The next step was Ceaușescu's speech in 1982, in which he proposed the creation of a museum that would present the country's history in a unified narrative, to which local museums would adapt. This narrative consisted of a 45-page guide to reorganizing the basic exhibition of local museums, which they received in 1985.[66] Of these, 11 pages were devoted to the pre-twentieth century, and the majority to the twentieth century. The turning point, of course, was 1921, the birth of the Party. The exhibition had to showcase major national processes and events, with minimal space for local aspects, which could at most be mentioned in the argumentation. The guidelines provided for a uniform exhibition from the Stone Age to the present, with the present to be constantly expanded in the event of a new party congress. A change from the 1974 introduction consisted of a pronounced emphasis on continuity, including the role of the individual. While in 1974 the Dacian element was as important as the Roman, by this point it had become more significant. Following the Roman retreat, a "disorganized state" (a historically unintelligible term intended to demonstrate the continuity of statehood) was left behind, from which the medieval voivodeships developed as a continuation of Dacian struggle for independence. In the context of the medieval "feudal" state, it was the exploitation of the serfs and their movements that had to be brought to the fore.[67] The Modern Era was the least ideological of all the sections, focusing mainly on the labor movement, strikes, and the 1907 uprising. Of the post-1945 period, the Dej era was barely mentioned and his name was avoided

the revolutionary transformation of Romanian society enriches the general treasury of world revolutionary theories and practices and contributes to the development of scientific socialism…" (*Programul PCR* 1975, 63).

[62] Boia 2005, 284–291.

[63] Velimirovici 2015, 177–179.

[64] Burebista was considered for the role because there was very little information about him. There are no surviving images of him, yet his portrait had to hang on the walls of every cultural institution. Any role could be assigned to him, and he could be portrayed as the leader of an independent state at war with the great powers, which was consistent with Ceaușescu's personality.

[65] Bărbulescu 2022, 299. Most of these objects are still part of the collection of the Museum in Bucharest.

[66] The title of the document: *Tematică cadru pentru muzeele județene de istorie* [Thematic framework for county history museums]. Of the 45 pages, only 11 were devoted to the period before the twentieth century: two and a half pages to ancient times, which had previously been very important, four to the Middle Ages and four and a half to modern times. Of the 34 pages devoted to the twentieth century, four were devoted to the period between the two world wars, two to the Dej period 1945–1965, and 28 to the Ceaușescu period 1965–1985.

[67] The peasant uprising led by György Dózsa became a "peasant war," while the Horea rebellion remained an uprising. The Horea uprising was the subject of a debate between historians Ștefan Pascu and David Prodan in the early 1980s. Pascu, in the spirit of proto-chronicism, classified it as a revolution, while Prodan, in the spirit of historical fidelity, classified it as an uprising (Verdery 1994, 245). The guide shows that the Party's propagandists accepted Prodan's argument.

altogether, while the Ceaușescu era contained not only different subjects, but also precise quotations and images.[68] For local museums, this document was a benchmark. Objects of national importance were copied, so that over time the basic exhibition of local museums became virtually identical.

In the summer of 1985, another guide was published for an exhibition commissioned to mark the twentieth anniversary of Ceaușescu's election as party secretary. The 32-page guide specified the images and quotations to be used.[69] The last script of this period, written in March 1989, presented the material from the 14th Party Congress of 1988 that was to be incorporated into the basic exhibition. The 12-page guide naturally contained only images of Ceaușescu and quotes from him.[70]

Dilemmas on the margins of the temporary exhibition "Chapters from the life of a museum. Examples from Târgu Mureș"

The idea of the research was born in 2021. Unlike the case of other institutions in the county, the history of the Mureș County Museum is not linear and cannot be told in a single chronological sequence. During the nineteenth and twentieth centuries, each regime and its local representation considered it important to establish new institutions that would better represent its cultural objectives than similar institutions of the previous regime. This was the case during the dualism, interwar,[71] and communist periods.[72] A narrative was therefore needed to tell the story of the institution, and so the idea of looking at the museum from the outside and from above, from the perspective of nationalism and nation-states, was born. The difficulty in telling this story lies in the fact that the cultural memory of the city's Romanian and Hungarian communities is very different when it comes to the museum's past and its history. For the Romanian community, neither the former Industrial Museum of Szekler Land nor the picture gallery in the Palace of Culture, known as the Bernády Collection, can be considered the predecessor of the museum. For them, the moment of foundation is the public exhibition of the archaeological and ethnographic collection created by Aurel Filimon in the interwar period. Clearly, the year of the museum's foundation cannot be determined, and there was no consensus on this question throughout the twentieth century.

Today, the Mureș County Museum considers its predecessors to be all the cultural institutions whose collections have been partially or completely incorporated into the current collection of the museum. These include, in addition to those already mentioned,

[68] Moisa 2013, 167–170.

[69] Of course, the title of the exhibition was also set: *Epoca Nicolae Ceaușescu – epoca celor mai rodnice împliniri din istoria poporului român 1965–1985* [The Nicolae Ceausescu era – the era of the most fruitful achievements in the history of the Romanian people 1965–1985].

[70] Moisa 2013, 176–179.

[71] The period 1940–1944 cannot be considered as a separate period in terms of the establishment of institutions. Although it rejected the views of the previous period, it continued to run the exhibition that had been created between the two world wars.

[72] We have divided the period of communism into two parts: the internationalist period, which largely corresponds to the period of the Hungarian Autonomous Province, and the nationalist period, which is the period 1960–1980.

the Calvinist and the Roman Catholic Gymnasium,[73] the latter being the former owner of the personal legacy of the abbot-priest Ferenc Kovács,[74] and the Regional Museum of Sângeorgiu de Pădure.[75]

The objectives of the planned exhibition are manifold. On the one hand, we want to create a thematic temporary exhibition – in the classical sense – that takes an example from the history of the collections, institutions, and museums that once operated in Târgu Mureș and examines their creation and functioning from the perspective of nationalism and the perceived or real cultural mission of the institution in question. We will achieve this by presenting a selection of exhibitions from different periods in seven plus one modules. Where possible, we will try to recreate an authentic scene from the core exhibition of a particular period.

As a result, the exhibition has a fragmented and discontinuous character, but the unified design is intended to overcome this barrier and make the display easier to comprehend. In the thematic units, we plan to display objects that were used in the exhibitions of the time, and we try to recreate the atmosphere of the former exhibition as realistically as possible. This makes it an exhibition within an exhibition, and each thematic unit will therefore have two explanatory texts: one presenting texts written either at the time or in the style of the original exhibition, and the other (written by the curator) explaining what the visitor sees and why. Another "game" concerns the labels of the objects. Whether or not they were applied at the time, we plan to place labels next to the objects with texts we think they would have contained. To help visitors understand the exhibition, we will repeat the thematic units in the last room of the exhibition, but with only one or two objects that were used in the previous rooms, presented in a modern, twenty-first-century concept and environment. These objects will be accompanied only by a "contemporary" explanatory text, providing information about the object and its history. The "game" of inscriptions will continue, but in this case, we will only give a brief, factual description of the object, leaving its interpretation to the visitor.

The exhibition will take place on the upper floor of the fortress building, so the thematic layout had to be adapted to the space. The eight thematic units are divided into six exhibition rooms. In the first five rooms, the aim is to reconstruct a (basic) exhibition from each period as authentically as possible.

In the first room, we will display the private collection of the nineteenth-century parish priest Ferenc Kovács and the former collections of the Calvinist and Roman Catholic high schools of Târgu Mureș. Since Kovács never exhibited his collection, and since we have no information on the Roman Catholic school's museum, we decided to present the objects in a contemporary way and to place them in installations. This exhibition module will

[73] After nationalization in 1948, these collections became part of the collection of the Provincial Museum, which was being organized at the time.

[74] Ferenc Kovács made a testamentary disposition of his collection, which was transferred to the Roman Catholic secondary school collection after his death in 1889.

[75] During the period of the Autonomous Province were the Sângeorgiu de Pădure, Gheorgheni, and Târgu Secuiesc museums established (Boér, Gagyi 2005, 6). The museum in Sângeorgiu de Pădure operated until the administrative reorganization of 1968, when part of its collection was incorporated into the collection of the County Museum.

explore the question of why nineteenth-century urban intellectuals began to collect, what they considered valuable and antiquarian, and what attracted some of them to archaeology.

In the second room, we aim to recreate the first (basic) exhibition of the former Industrial Museum of Szekler Land. Industrial museums are no longer considered museums in the classical sense, as they did not have a collection and their aim was not to preserve objects, but to disseminate industrial innovations and introduce them to rural areas. Most of the objects of the former Industrial Museum have been lost, and only a fraction remains available today. A catalogue of the first (basic) exhibition contains a photograph, and we will try to present a fragment of this exhibition on this basis. This exhibition already used showcases, but they were overcrowded compared to our current perception. The primary question of the module is: why did the nineteenth-century Hungarian elite in Târgu Mureș consider it important to create an industrial museum, and what nation-building intentions might have motivated this endeavor?

The third room presents two thematic units: a reconstruction of Aurel Filimon's personal ethnographic exhibition from 1936, as a reference to the basic archaeological and ethnographic exhibition of 1934, and the history of research at the Cristești archaeological site. Filimon, who was an ethnographer and an archaeologist, as well as a lifelong collector of artifacts, can be considered the driving force behind the museum that was to be established in the interwar period and the founder of the collection. The archaeological site of Cristești is not only one of the most important Roman archaeological sites in Mureș County, but it is also important because it has been excavated in every period since the nineteenth century. Filimon also conducted research here in the 1920s, and each period has given a different interpretation to the objects found. While several photographs exist of Filimon's 1936 exhibition, and we intend to reconstruct part of it, a contemporary display method will be used for Cristești. The Filimon module is intended to showcase the views of the interwar Romanian elite on ethnography and archaeology, as well as their role in nation-building; Cristești is an example of the many different ways in which the same objects can be interpreted and presented according to the demands of the time.

In the fourth room, we intend to reconstruct the picture gallery opened in 1913, now known as the Bernády Collection. A photograph of the original display will serve as the basis of our exhibition, which will display paintings that are, in some way, representative of the collection. The main question of the module is why Bernády specifically wanted to create a picture gallery and what criteria determined the composition of the collection.

In the fifth room, we will try to reconstruct parts of the two main exhibitions of the Mureș County Museum from the period of state socialism. During the socialist period, museums played an important role in propaganda through visual representation. The system had a particular interpretation of the past: in the 1950s, the focus was on the evolution of man and the means of production, while from the 1960s to the 1980s, the focus shifted to exploitation as a permanent phenomenon of history. The two modules are based on the images from the museum's main exhibitions of 1957 and 1970. We have photographs of both, so we will try to reconstruct them as authentically as possible. The main aim of the modules will be to reveal the ideological and nation-building intentions behind the peculiarities of the socialist interpretation of the past.

In the sixth room, we will repeat the previous thematic units, displaying again one or two of the objects presented before, but this time in accordance with the demands of the 21st century. We will use inscriptions to show what we would have to say about the same object today. The method will serve to demonstrate that, beyond their aesthetic value, objects can in themselves serve different ideological purposes; it is all a question of context.

There were several issues that made the design and presentation challenging. We have responded to them in a certain way, but we are aware that these are not exclusive points of view, but rather subjective ones that primarily reflect the curators' perceptions. The basic concept of the exhibition itself is specific – one might even say ideological – and therefore controversial and subjective, and any criticism is accepted as possibly justified. In our view, however, it is an existing and well-established interpretive narrative of museum history. It is intended to prompt visitors to consider the role of museums as cultural institutions, the infinite ways in which objects can be viewed beyond their aesthetic and scientific nature, and consequently appropriated, used, and interpreted according to one's own perceptions and ideologies.

In many ways, the curator and the participating museologists have to approach the exhibition in a different manner, away from the dilemmas of a typical temporary exhibition. Each museologist has a subject area and, in a good case, a related collection, and their exhibitions are usually related to the objects in it. For example, an archaeologist-museologist usually organizes an archaeological exhibition, while a historian usually organizes a historical exhibition. The extent to which each of the curators involved was able to break out of this pattern varied, reflecting their personalities and socialization. Another challenge was that, in the context of the planned exhibition, the objects were relegated to the background and had only an illustrative character to support the story being told, but in this sense the objects selected or exhibited did not have much significance. In other words, the resulting exhibition will hopefully be an exhibition of archaeology, ethnography, art history, history, institutional history, an exhibition illustrating the intertwining of museums and nation-building in the nineteenth and twentieth centuries, and "just" a temporary exhibition. Although the concept behind the exhibition is a deliberate choice, we are aware that the above interpretations are all possible simultaneously. Whatever narrative visitors are left with, the main aim is to engage them emotionally.

The exhibition will be accompanied by a catalog. Given the sensitivity and complexity of the subject, we thought it would be a good idea to publish a booklet, and for this reason, we also decided that it should not only contain explanatory texts with illustrations of the exhibition, but also make clear that the concept behind the exhibition is based on sound scientific arguments and rationales. The publication is therefore not an exhibition catalog in the traditional sense, but a classic volume of studies, with a relatively large number of illustrations, which explores the themes presented in the exhibition through scholarly texts.

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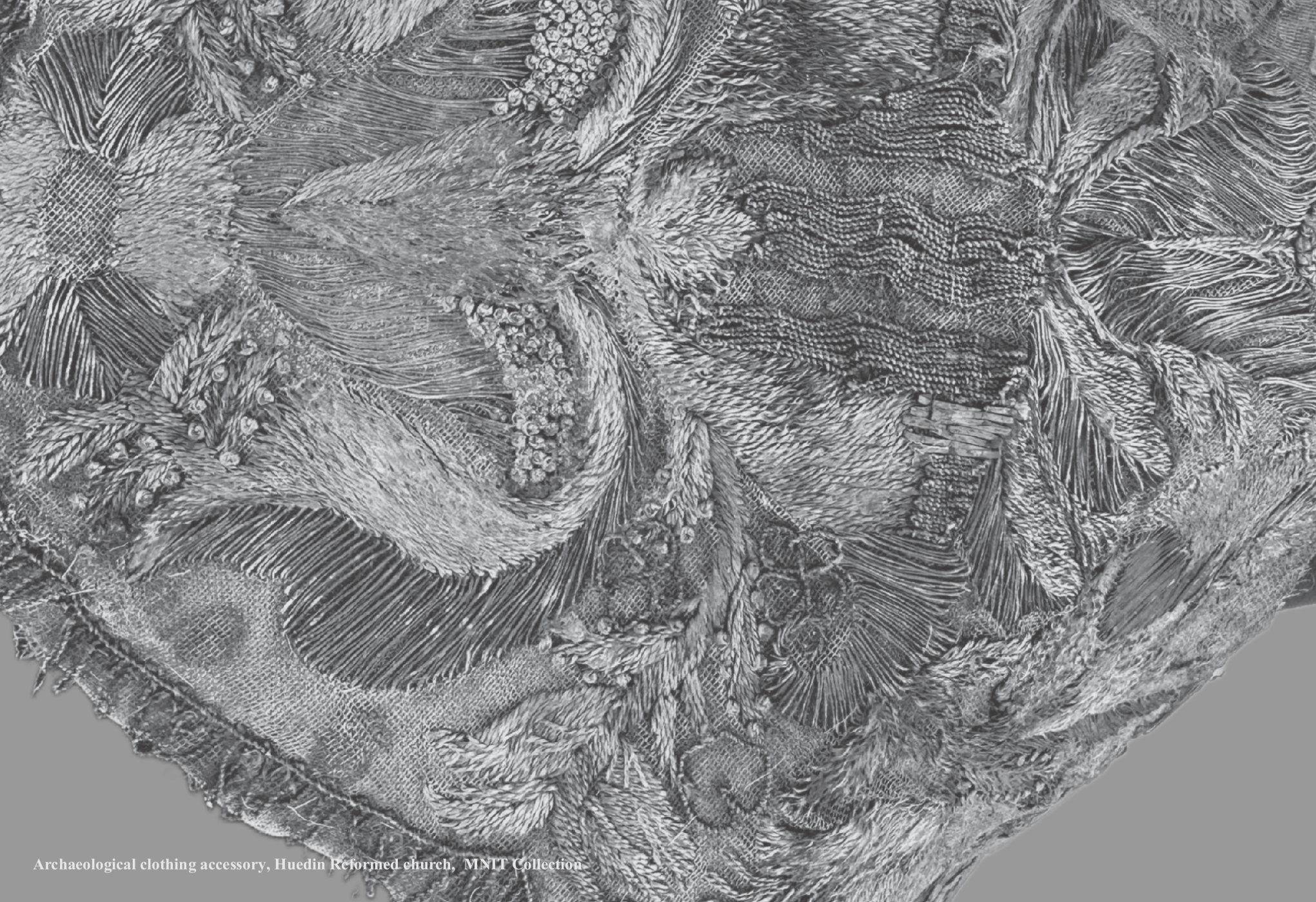
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Archaeological clothing accessory, Huedin Reformed church, MNIT Collection

CONSERVATION AND RESTORATION

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THE INVESTIGATION AND RESTORATION OF A SEVENTEENTH–EIGHTEENTH-CENTURY ARCHAEOLOGICAL CLOTHING ACCESSORY

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Abstract: The article presents the investigations, as well as the conservation and restoration interventions carried out on an archaeological feminine clothing accessory with a decorative and functional use discovered in 2019 during excavations at the Reformed Church in Huedin (Cluj County, Romania), in the church crypts dating from the seventeenth and eighteenth centuries. Several artifacts and textile fragments recovered from these crypts initially required *in situ* conservation treatments to stabilize them. Subsequently, the pieces underwent procedures specific to archaeological objects, including quarantine, disinfection, and gradual acclimatization to optimal storage and restoration conditions. The study details the investigations and surveys carried out, as well as the interventions applied to the clothing accessory.

Keywords: investigation, restoration, metal threads, archaeological textiles, survey, Bánffy family crypts.

Rezumat: Articolul prezintă investigațiile și intervențiile de conservare și restaurare aplicate asupra unui accesoriu vestimentar feminin, arheologic, cu rol decorativ și funcțional, descoperit în criptele datate în secolele XVII–XVIII, cu ocazia săpăturilor efectuate la Biserica Reformată din Huedin, în anul 2019. Mai multe obiecte și fragmente textile recuperate din cripte au necesitat inițial intervenții de conservare *in situ*, pentru stabilizare. Ulterior, piesele au fost supuse procedurilor de tratament specifice obiectelor arheologice, inclusiv carantinare, dezinfecție și adaptare graduală la condiții optime de depozitare și restaurare. Studiul detaliază investigațiile și realizarea releveelor, precum și intervențiile aplicate asupra unui accesoriu vestimentar.

Cuvinte cheie: investigare, restaurare, fire metalice, textile arheologice, releveu, criptele familiei Bánffy

Introduction

In 2019, in the context of the restoration of the Reformed Church in Huedin (Cluj County, Romania), an archaeological research was initiated by the National Museum of Transylvanian History.[1] The investigations were carried out in two stages[2] under the direction of Zsolt Csók, Ph.D. The team recovered numerous fragments of archaeological textile,[3] which, based on the inscriptions found on one of the coffins, were dated to the late

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[1] Funded by the Teleki László Foundation (Budapest, Hungary).

[2] The duration of the research: October–December 2019, February–October 2020; Csók 2020.

[3] Magó, Chetrari 2022, 220.

seventeenth and early eighteenth centuries. These artifacts belonged to a Hungarian noble family from Transylvania, namely the Bánffy family.

The research, conservation, and restoration of archaeological textiles is inherently interdisciplinary, involving specialists in archaeology, art history, natural sciences, conservation, and restoration. Immediate conservation measures applied upon discovery are essential for the long-term stability and integrity of such artifacts.

At the time of recovery, the investigated clothing accessory[4] was in an advanced state of degradation (Fig. 1). To prevent further deterioration, it was temporarily stored within the crypt's original microclimate,[5] as recommended in the scientific literature.[6] Maintaining conditions similar to those of the source environment, followed by a gradual acclimatization to storage conditions, is essential to avoid physical and chemical stress on archaeological textiles.

Steps prior to the investigation, conservation, and restoration process

Archaeological textiles are highly susceptible to rapid degradation immediately after discovery, as they are in a delicate equilibrium with the burial environment. The sudden disruption of this balance through exposure can lead to the loss of structurally bound water within the fibers, which is often irreversible and results in embrittlement and alterations in the fibers' physical, mechanical, and chemical properties. In most cases, the original properties of the fibers cannot be fully restored.

Since climatic fluctuations can accelerate textile degradation, it is essential to maintain the original microclimate in the storage environment. A general rule applied by specialists is that items discovered in dry conditions should be stored in similarly dry environments, while those recovered from damp contexts should be stored in comparable moisture levels.[7]

The restoration methodology employed in this case began with a very slow, progressive rehydration by exposure to cold water vapor, to support the recovery of the textile fibers' physical properties. Thus, the gradual transition of the crypt's microclimate over more than 12 months to the laboratory microclimate was an essential factor in salvaging the piece.

In the altar of the Reformed Church, four crypts were discovered; the clothing accessory belongs to crypt no. 3.[8] Upon opening crypt no. 3, eight successive burials were identified, which contributed to the deterioration of the coffins, particularly those at lower levels. Initially, the condition of the textiles was difficult to assess due to the accumulation of organic and inorganic deposits (humus, rubble, plant remains) placed in accordance with funerary practices.

The specialists' interventions primarily focused on halting the biological and chromatic degradation caused by these contaminants while maintaining the original microclimatic conditions. Climatic changes can accelerate the deterioration of textiles, which is why the storage environment must be adapted to the conditions in which these

[4] National Museum of Transylvanian History, Cluj-Napoca, Medieval and Ealy Modern Collection, no. F30122.

[5] Relative humidity (RH) 91%, temperature 14.9°C.

[6] Jones et alii 2007, 10.

[7] Jones et alii 2007, 11.

[8] Csók 2020.

were found (dry or damp).[9] Fungal prevention and disinfection were achieved by exposing the items to 70% isopropanol vapor introduced into the quarantine space's atmosphere using alcohol-moistened swabs, without direct contact with the textiles. Subsequently, the microclimate was gradually adjusted to the conditions of the laboratory and the warehouse by controlling humidity and temperature.

Upon arrival at the restoration laboratory, the archaeological clothing accessory showed multiple degradations: particle deposits, structural deformation, oxidation of the metal threads, and a notable fragility of the textile support (Fig. 2). Following preliminary assessments, a specific treatment plan was devised to stabilize the constituent materials and restore the original shape of the piece, in preparation for long-term exhibition and conservation. The intervention consisted of consolidation on a new natural silk support, the aim of the piece's double lining being to fill gaps and missing areas. The materials used were carefully selected to ensure physical-chemical compatibility and chromatic integration with the original components.

The continuous monitoring of the objects' state of conservation was essential to the successful preservation of the archaeological textiles and laid the groundwork for their subsequent restoration.

The physical-chemical investigation of archaeological textiles

The methods used for analyzing textiles depend on their state of conservation. Due to their organic nature and vulnerability to rapid degradation, multiple scientific techniques are often required to obtain a reliable and conclusive interpretation.[10] Given the fact that these are generally unique objects, non-destructive or minimally invasive analyses are recommended, involving the extraction of extremely small samples, preferably from areas with visible degradation, while ensuring the overall integrity of the artifact.

The scientific investigations[11] proposed for the research of the selected pieces were: optical microscopy (OM)[12], X-ray fluorescence spectroscopy (XRF),[13] and scanning electron microscopy coupled with energy-dispersive X-ray spectroscopy (SEM-EDX)[14]. These methods allow for *in situ* analysis without causing damage. The analyses identified the types and morphological characteristics of the threads used in the textile.

Scientific literature provides relevant data on the production of metal threads[15] based on their provenance[16] and the types of alloys[17] commonly used in different historical periods. Based on the archaeological reports, we know the exact location of discovery (Reformed Church in Huedin, Cluj County, crypt no. 3, Bánffy family). A possible classification of

[9] Jones et alii 2007, 6.

[10] Gugeanu et alii 2020, 32.

[11] Muros et alii 2007, 232–237; Timár-Balázsy, Eastop 2011, 381–388, 406–410; Al-Sharairi 2020, 1671–1688; Kopyciak et alii 2025, 518.

[12] OLYMPUS CX33 microscope.

[13] Elva X Prospector3 MAX portable EDXRF spectrometer with large area SDD detector.

[14] Hitachi SU8230 scanning electron microscope with magnification range of 30×÷500.000×, maximum resolution ~1 nm, Oxford Instruments EDX and EBSD detectors and AZtec analysis software.

[15] Karatzani 2012, 55–68.

[16] Járó, Tóth 2011, 29–56.

[17] Járó 1990a, 46–51; Járó 2003, 163–178.

metal threads established for Ottoman embroideries from the fourteenth to the nineteenth centuries was made based on their chemical composition: (i) fine gold (gilded solid silver), (ii) semi-fine gold (silvered and gilded copper), (iii) false gold (brass-plated copper), (iv) solid silver (silver with low copper content), (v) fine silver (silvered copper), (vi) semi-fine silver (thinly silvered copper), (vii) false silver (nickel-plated and silvered copper), and (viii) new silver (copper-zinc-nickel alloy).[18] Based on this typology, most of the metallic strips and threads with textile cores in the analysed piece fall into the category of solid silver, as the amounts of copper measured in the analysed samples are very low (less than 0.50%), except for one thread sample with metallic strips wound around a textile core of twisted thread, where the amount of copper was three times higher (1.80%) than in the rest of the samples, hence this type of thread falls into the category of gilded solid silver.

Physico-chemical investigations can provide important information on the morphology of threads, possibly also on their production techniques; thus, the examinations and analyses carried out by optical microscopy in transmitted and reflected light and by scanning electron microscopy coupled with energy-dispersive X-ray spectroscopy played a significant role in the research.[19]

The preliminary results confirmed that the textile threads in the piece are made of natural silk fibers (Fig. 3).[20] The threads of the support (tulle) are approx. 0.15–0.2 mm thick, the embroidery threads are of different shades (ochre, bluish-green, brown) and are approximately 0.50–0.60 mm thick. The metal threads with a textile core range from 0.25 to 1.10 mm. The embroidery of the piece was created by using three types of metallic threads: metal strips wound around a textile core of one twisted thread, presented in figs. 3 and 4; threads of metal strips wound around a textile core of two twisted threads, presented in figs. 3 and 5; metallic strips presented in figs. 3 and 6.

Using scanning electron microscopy and X-ray fluorescence spectroscopy, the morphology of the metal threads and the composition of the metal alloys were identified.[21] It was also noted that the strips wound on the textile core have cut edges, which, according to some scientific sources, is typical of metal threads manufactured in Western Europe up to the late sixteenth century or possibly early seventeenth century. The well-defined, sharp-edged contours suggest that the strips were cut from a metal sheet.[22] On investigation, the absence of characteristic parallel line marks on the strip surfaces, commonly associated with the thread-spinning process, was noted. The absence of these features suggests that the strips in question were not made by spinning but, more likely, by an alternative technique such as mechanical cutting from a metal sheet.

The data obtained from the analyses contributed to the existing knowledge and supported the selection of the most appropriate solutions for the conservation and restoration of the cultural asset.

[18] Rinuy 1995, 13–26.

[19] Járó 1990b, 299–301.

[20] Analysis bulletin no. 88/01.04.2022 in the National Museum of Transylvanian History digital archive.

[21] Annex to Analysis bulletin no. 88/01.04.2022 in the National Museum of Transylvanian History digital archive.

[22] Járó, Tóth 1991, 175–184.

sample name	identification	metal strip characterization
metal strip wound around one twisted thread (Fig. 3a)	silver	Ag: 99.42±0.15%, Cu: 0.46±0.20%, Zn: 0.12±0.18%,
metal strip wound around a twisted thread at the edge of the clothing accessory	silver	Ag: 99.35±0.15%, Cu: 0.49±0.21%, Zn: 0.15±0.19%
metal strip wound around two twisted threads (Fig. 4a)	gilded silver	Ag: 96.00±0.3%, Cu: 1.80±0.4%, Au: 1.4±0.3%, Zn: 0.4±0.3%, Rh: 0.26±0.16%, Pd: 0.11±0.17%, Ru: 0.02±0.06%
metallic strips (Fig. 5a)	silver	Ag: 97.92±0.15%, Sn: 1.40±0.3%, Cu: 0.59±0.22%, Zn: 0.09±0.17%

Tab. 1. Results of the XRF analyses performed on the metal strips.

Conservation and restoration

Following the stabilisation, disinfection and acclimatisation of the pieces in the quarantine space, mechanical cleaning was carried out using a soft brush in combination with a vacuum cleaner equipped with adjustable suction power (Fig. 2). Cleaning[23] is considered the most important stage in the conservation process, as its primary objective is to stabilise the objects by removing humus, organic residues and materials associated with the crypt's funerary context – elements which pose a high risk of further degradation.

After disinfection and dry cleaning of all uncovered artifacts, with the state of conservation considered stable, the essential step of wet cleaning by immersion was carried out. Some of the residual deposits were removed by this method, using a 5% hydroalcoholic solution, followed by cleaning with a solution derived from a decoction of *Saponaria officinalis* (5%) and multiple rinses with distilled water. For this stage, the pieces were individually secured between two layers of tulle, then immersed in special trays containing the cleaning solution. Throughout the procedure, the solution's pH was closely monitored and maintained at neutral levels.

This technique facilitated the removal of impurities and restored the flexibility of the embrittled fibers by allowing the water to penetrate the dehydrated fiber structure. After this process, the excess water was removed using an absorbent bed of neutral paper on a flat surface to restore the piece's original shape. Flattening the folds and creases was carried out with utmost attention through a labor-intensive process. The methodology applied to this textile piece primarily aimed to preserve its originality and integrity (Fig. 7).

Description of the feminine clothing accessories

The classification of the artifact within a specific category of historical clothing accessories was made possible through analogies identified in the scientific literature. This typological assignment was based on several key criteria: correspondence with the historical period (seventeenth and eighteenth centuries), triangular shape, materials used, type of embroidery, the presence of metallic threads, visible marks indicating the

[23] Timár-Balázsy, Eastop 2011, 242–244.

use of fastening pins, discovery within an archaeological context, and association with a noble family.

At the time of discovery, the museum's specialists were unable to determine the typology of this piece. Only after stabilization and conservation could the piece be handled to restore its original shape. Due to its fragile condition, the artifact could not be reliably identified from the moment of its discovery until the wet cleaning process (15 months).

The textile piece, discovered in the crypt of the Reformed Church in Huedin, underwent several investigations, which confirmed that it had been embroidered with silk and metallic threads on a silk support; it can therefore be categorized as a decorative clothing accessory. The artifact is triangular in shape and richly ornamented, with the primary decorative focus concentrated near the top. Its outer edge, narrow and lacy in appearance, is accentuated by a decorative cord made of twisted metal thread forming loops. The embroidered elements are centrally arranged, gradually diminishing towards the sides, approximately 7 cm from the lateral edges, which is presumably where the fastening area was located.

The embroidered decoration is made of silk threads that still retain shades of bluish-green, yellow, and brown, applied on a fine silk *gauze* support. From a compositional point of view, the decoration is typical of Transylvanian embroideries, with a stylized vase as the central motif, from which two stems curl upwards in the shape of the letter "S," with lateral branches of leaves and flowers. The dimensions of the piece are as follows: length of the side – 81 cm; maximum opening – 105 cm; maximum width – 27 cm; maximum width of the side – 8.5 cm; minimum width of the side – 7 cm. The analysis of the metal threads shows a predominance of silver, with isolated occurrences of gilded silver.

To provide a faithful representation of the embroidery's complexity, particularly the variety of identified textile and metallic threads, a graphic reconstruction was created to highlight the decorative structure and execution technique of the piece. This visual representation facilitates the perception of details that, in the current state of the clothing accessory, may be difficult to observe due to the degradation suffered in the funerary context, thereby contributing to a clearer understanding of the material and symbolic value of the artifact (Fig. 2).

Feminine clothing accessories with a decorative role and function

In the seventeenth and eighteenth centuries in Western Europe, garments were often complemented with various clothing accessories[24], including the artifact that is the focus of this article. During the seventeenth and eighteenth centuries, the attire in the Principality of Transylvania was strongly influenced by Western European fashion trends. Eighteenth-century fashion included large scarves, shawls, and coverings – with or without sleeves – intended to cover the upper part of the body. It was worn underneath or over a dress, or fastened to the front neckline.[25] In some cases, cloaks reaching to the shoulders and arms were also worn.[26]

[24] It originated in the United Kingdom in the eighteenth century and remained popular there and in France throughout the nineteenth century with many variations.

[25] Edwards 2017, 53–56, 57.

[26] Frères 2003, 69; Torta, Marcketti 2015, 290.

In specialized literature, this type of feminine clothing accessory with a decorative role and function appears under various names, depending on the historical period and cultural context. The term *fichu*[27] first emerged in 1816, followed later by several variants, such as *fichu-canezou* (1820), *fichu-pelerine* (1826), *fichu Corday* (1837), *fichu Antoinette* (1857), and *fichu Raphael* (1867).[28]

Considering the manufacturing technique, material, decorative elements, and intended function, and comparing it with previously published examples from a typological and chronological perspective, we propose classifying it as a clothing accessory known as a *fichu*.

Due to the deep necklines of the period dresses, the fichu was used to partially cover the neck and chest, and in some cases was crossed in front to add volume to the dress's silhouette. It came in various shapes[29] (rectangular, triangular), was tied at the front or back, and was often decorated with elaborate embroidery.[30] A defining feature common to all these variants is the accessory's primary function: to cover the shoulders. It was typically worn around the neck and shoulders, crossed in front at the waist, and could be paired with a high-collared bodice to add a touch of elegance to the outfit. Some *fichu* versions were intended for morning wear, while others included functional details such as a button fastening at the edge.[31]

Based on the specialized literature, this type of clothing accessory could have been worn in different ways: tucked, laced, crossed over, loose, tied, shoulder, twisted, or pinned.[32]

If such an artifact is found in funerary contexts (for example, in a crypt), it may reflect a concern for modesty and aesthetic appearance even *post-mortem*.

These types of clothing accessories were frequently adorned with embroidery (floral, geometric or symbolic, including religious or heraldic connotations, etc., made of silk, cotton, wool or even metal threads), textile appliqués (fabric pieces sewn on for colour contrast or decorative volume), metallic threads or sequins (especially in ceremonial or funerary attire, to highlight the value of the piece) and decorative fringes, tassels or ribbons (applied at the corners or at the edges). These embellishments not only served a decorative purpose but could also carry identity-related or symbolic meanings, reflecting the wearer's status, cultural affiliation, or age.[33]

Conclusions

Archaeological textiles constitute exceptionally fragile and rare material testimonies whose conservation necessitates highly specialized interventions, both at the time of discovery and during the restoration process. The examined piece demonstrates the

[27] In eighteenth-century Western clothing, the deeply low cut of women's bodices necessitated the introduction of an additional piece of textile – the *fichu* – used to cover the bust area and add a touch of decency and elegance to the outfit.

[28] Cumming, Cunnington, Cunnington 2010, 165–166.

[29] Laver 2022, chapter 6.

[30] Edwards 2017, 56, 61.

[31] Boucher 1967, 207, 280, 307, 318, 348–349.

[32] "Lucy Ebberton/" Art UK; "Penelope (Rycroft) Lee Acton/" The Huntington; "L'Enseigne de Gersaint/" Wikipedia.

[33] King 1993, 200–210.

effectiveness of the conservation methods used in treating the archaeological textiles recovered from the funerary context of the Reformed Church in Huedin. The investigation offers new insights and data on the materials and techniques used in this particular type of textile accessory. It can be concluded that the textile threads utilized in the artifact are composed of natural silk fibers, while the composition of all three types of metallic threads was identified as silver, and they probably were manufactured by an alternative technique, such as mechanical cutting from a metal sheet. Additionally, the conducted investigations supported the selection of appropriate restoration methodologies and provided valuable insights into the object's manufacturing techniques and broader historical context. The intervention not only facilitated the physical stabilization of the object but also enabled its display in a museum and its scientific valorization. The restored artifact is a significant addition to the collection of the National Museum of Transylvanian History and provides valuable data for the study of textiles from the seventeenth and eighteenth centuries.

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Fig. 1. a. Inscription on a fragment of a wooden coffin belonging to the Bánffy family; **b.** Clothing accessory at the time of discovery (photos by Gábor Kis).



Fig. 2. a–d. The clothing accessory before restoration operations (photos by Laura Troşan).



Fig. 3. Graphic representation of the decorative pattern: on the left side, in red: textile threads and fine silk *gauze* support woven from natural silk fibers; on the right side, in black, different types of metal threads with textile core and metal strips (drawing and graphics by Dana Șerban, photos by A. Beatrix Magó).

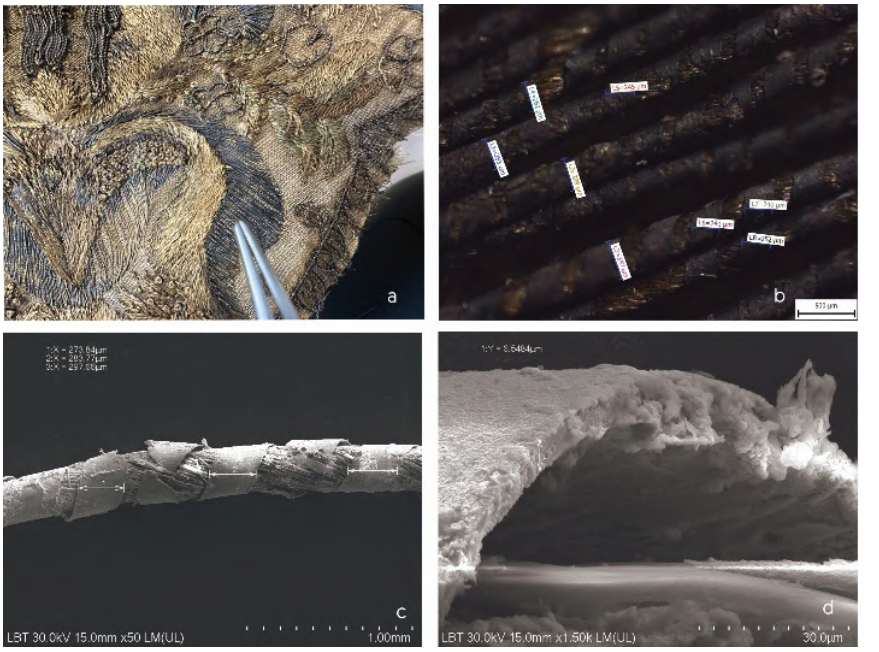


Fig. 4. Textile threads: **a.** detail of the metal threads sampling area; **b.** metal strip wound around a twisted thread, image in reflected light, magnification: 4×; **c.** detail of the metal threads, determining the strip width (273.84 µm, 283.77 µm, 297.88 µm) by SEM analysis; **d.** detail of the metal threads, determining the strip thickness (8.5484 µm) by SEM analysis (images by A. Beatrix Magó, Gábor Katona).



Fig. 5. Textile threads: **a.** detail of metal threads sampling area; **b.** metal strip wound around two twisted threads, image in reflected light, magnification: 4×; **c.** detail of metal threads by SEM analysis; **d.** detail of metal threads, determining strip thickness (9.071 µm) by SEM analysis (images by A. Beatrix Magó, Gábor Katona).

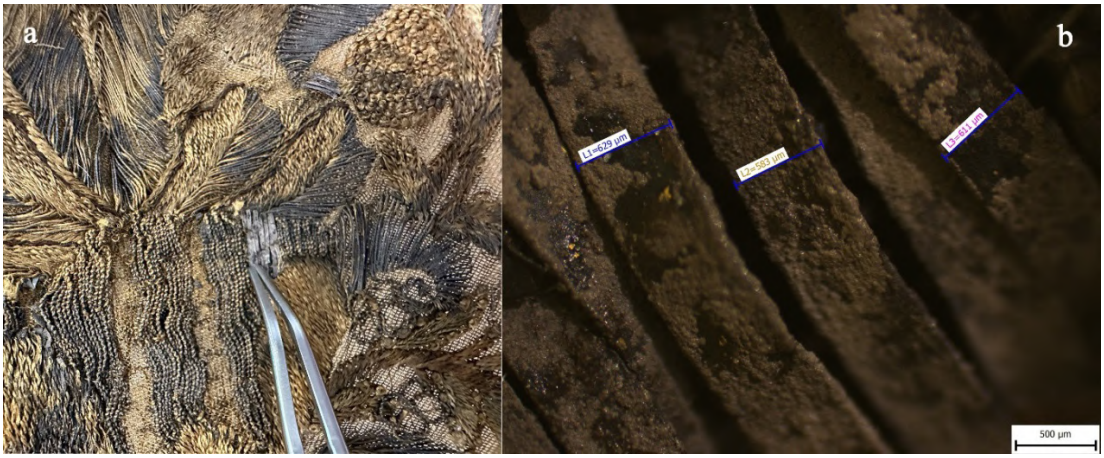
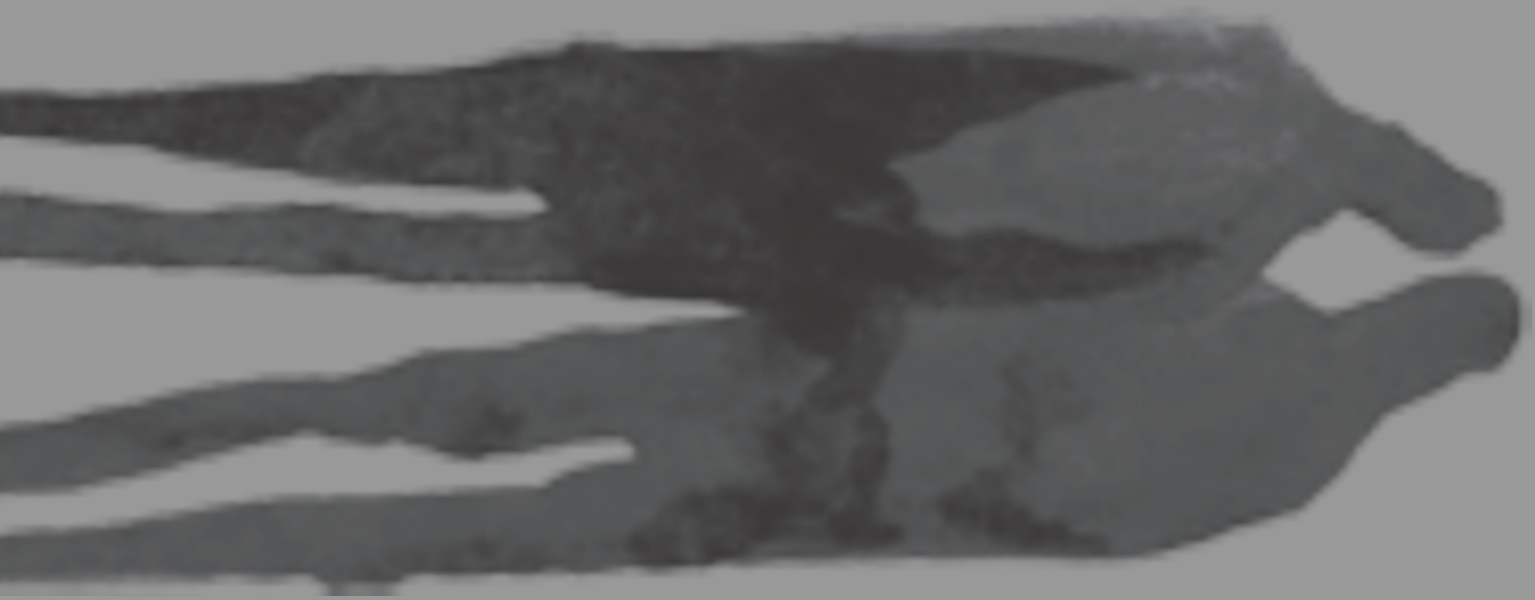


Fig. 6. Metal strips: **a.** detail of the metal strip sampling area; **b.** metal strip, image in reflected light, magnification: 4× (images by A. Beatrix Magó).



Fig. 7. Clothing accessory after restoration and proposal on how to wear and fasten the piece: front and back (photos by A. Beatrix Magó).



BOOK REVIEWS

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Aude TERRAY, *Singură împotriva tuturor: Viața prințesei Martha Bibescu* [Alone against everyone: The life of Princess Martha Bibescu], tr. by Alina Pavelescu, Humanitas, București, 2024, pp. 352, ISBN: 978–973-50–8593-3

Reviewed by ANDREEA IOANA URSULESCU*

Martha Bibescu was a blazing personality of the twentieth century, known both in Romanian and French society. Famous for her relationships with influential men of the time while married to George Valentin Bibescu, for her literary work, and accused of collaboration with the Germans during World War I, Princess Bibescu, formerly Lahovary, was a complex and unforgettable female presence. She was one of the emancipated women of the last century, forced to share the coveted Parisian stage with two other famous Romanian women: Anna de Noailles and Elena Văcărescu. This triad was the source of multiple rivalries, already known in our historiography, but which the author Aude Terray could not disregard and therefore skillfully addressed in the pages of this volume.

Aude Terray holds a Ph.D. in history; she is also a journalist and literary critic. Her writings reveal a propensity for writing biographies of twentieth-century personalities. Some of her best-known works have been dedicated to Jean Moulin, Claude Pompidou, and Drieu La Rochelle. In 2023, she devoted her attention to Princess Bibescu of Romania.[1] Terray's book was translated from French by Alina Pavelescu and published in 2024 by Humanitas. The work has 352 pages, consisting of a foreword, twelve chapters, a family tree, a bibliography, acknowledgments, and an index of names.

Much has been written about the life and work of Martha Bibescu.[2] However, in her latest biography, Aude Terray has succeeded in using previously unpublished documents from the National Library of France, the National Archives of Romania, and the National Library of Romania. In fact, with the permission of Jean Ghika, Martha Bibescu's great-grandson, Terray accessed the Bibescu-Ghika family archive, where she reviewed the correspondence between the princess and her daughter, Valentina, as well as her personal diary, which stretches over 63 years. The author also had the opportunity to talk to the family heir, Jean Ghika, adding excerpts from their discussions to her text. The volume captures the reader's attention through the story of the young woman unwanted by her mother, the extravagant life at Mogoșoaia, mutual adultery, female rivalries, the princess's drama during the "Great War," the conflict with Queen Maria, her association with relevant men in international politics, the poverty after the end of the Second World War, etc. Terray's biography follows Martha Bibescu's journey from childhood to her death,

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[1] Terray 2023.

[2] de Diesbach 1986 (Ro. tr.: de Diesbach 1998); Sturdza 2004; Sutherland 1996 (Ro. tr.: Sutherland 2005); Iordan 2010; Sturdza 2016; Pavelescu 2017.

chronologically covering the entire evolution of her life. The princess was born and raised in a world dominated almost exclusively by men. Her rise was complicated, but with a lot of hard work, she reached positions that most women did not even dream of. The author accurately highlights the role played by Martha Bibescu in the emancipation of women in the twentieth century. The biography received the Nouveau Cercle de l'Union Interalliée Award (2023) and the Céleste Albaret Award (2024), and in Romania, it sparked the interest of a large audience with its content.

The first chapter, *A sad childhood (1866–1901)*, includes information about the early years of Martha Bibescu, daughter of conservative Ion Lahovary and Smaranda Mavrocordat. At the beginning of the book, the author describes the birth of the future princess, unwanted by her mother, who had wanted a boy, but loved by her father because she was born in a time of particular happiness in Lahovary's life, due to his entrance in the Conservative Party, coinciding with his daughter's birth. The reader might find the information about her parents and their absence from Martha Bibescu's life particularly entrancing, equally so the passages about her daily concerns and her only emotional connection with her brother Georges Lahovary. The relationship ended with the death of her brother, which left a significant mark on the family, but especially on his sister. The loss of her brother, combined with the lack of family support, led to a period of intense introspection for Martha Bibescu. From the very first chapter, we can see that Terray has written a novelized biography, but she does not attempt to impress with her bibliography. Instead, the journalistic style prevails over the historical one in how the author contextualizes events and analyzes documents.

Chapters two and three, entitled *The golden cage (1901–1906)* and *Emancipation (1905–1911)*, depict defining moments in her life, beginning with the birth of her only daughter, Valentina Bibescu, and her closeness to her cousins Anton and Emanuel Bibescu. The rigor with which the author brings the Bibescu brothers back into the public eye is commendable: "Antoine, the youngest, is a 26-year-old seducer" (p. 53) and "writes, plays and has a diplomatic career; he has just obtained a post in London" (p. 54), while Emanuel, who was rumored to be homosexual, was "a scholar, a Tolstoyan, passionate about Japanese and Gothic art" and a close friend of Marcel Proust (p. 54). The presence of the two brothers in the princess's life had a considerable influence on her intellectual development and training from the very beginning of her literary career. The author describes how the brothers intervened with various notables within the French Academy to send their cousin's manuscripts to them. The result was positive, and Martha Bibescu managed to publish her first book in February 1908 thanks to her "initiators." Given that she frequently refers to the Bibescu brothers, it would have been greatly appreciated if the author had consulted Mihai Dimitrie Sturdza's works on the Bibescu family, as well as the extensive Bibescu family archives held at the Romanian Academy Library in Bucharest. We dare to comment on the collection because we consulted the inventory and identified extensive correspondence between Martha Bibescu and Anton Bibescu from the 1930s.

In the same year, Martha Bibescu met Anna de Noailles for the first time. The relationship between the two women was believed to be tense from the outset, as Aude Terray points out, because Anna de Noailles had spread malicious comments about the princess's writings in Paris. It is likely that Martha Bibescu's reluctance was a manifestation

of her ego and that she felt overshadowed by her cousin's success and the attention she enjoyed, especially from the trio of Anton and Emanuel Bibescu and Marcel Proust. Moreover, her resentment towards the countess was compounded by her first cousin's association with Elena Văcărescu.

Văcărescu's case is unique, and the author meticulously describes several details about the life of Queen Elisabeth of Romania's former maid of honor and the image she built for herself in French society. Because Martha Bibescu refused to flatter the former when she entered the French literary scene, an antipathy arose between the two. The author adds new information in this case, namely that Elena Văcărescu also feared Martha Bibescu's rise, as she had become close to the Romanian Legation in Paris, which was a source of irritation for Văcărescu. This time again, a broader familiarity with the memoirs, especially those of Elena Văcărescu, would have helped to paint a clearer picture of the Bibescu–Văcărescu antagonism. The memoirs of the Romanian delegate to the League of Nations are rather easily accessible, both in Romania and France, and are also available in French.

Chapter IV, *Confused feelings (1911–1916)*, begins with her first experience of adultery, with Charles-Louis de Beauvau-Craon, a member of the French aristocracy. The author describes the scandalous situation and the shock experienced by her betrayed husband, George Valentin Bibescu, who challenged his adversary to a duel. Adopting a journalistic tone, Terray reviews details about the outbreak of war, the death of the king and her father, Ion Lahovary, and the visits she received from various politicians. Among the visitors was Otto von Czernin, with whom she had interesting discussions, trying to convince her to use her influence and urge the representatives in Bucharest to have Romania enter the war alongside the Central Powers.

The chaotic years (1916–1922) is the fifth chapter of Aude Terray's book, which highlights Martha Bibescu's involvement in supporting the war effort, with an emphasis on her work at Hospital 118 in Bucharest. Although the elites and part of the population moved to Iași, she decided to remain in the capital and continue to run the hospital, which sparked controversy over her collaboration with the German army. The author defends Martha Bibescu and gives us the impression that Queen Maria's passivity towards events was unmerited and that Elena Văcărescu was primarily to blame. Furthermore, in the aforementioned section of the work, Terray also focuses on the marriage of her cousin Anton Bibescu to Elisabeth Asquith, the daughter of Liberal Prime Minister Herbert Henry Asquith. Martha Bibescu was chosen as a groomsmaid by Anton Bibescu, which allowed her to be part of the influential circle surrounding the Asquith family and in the spotlight of the English press. In the sixth chapter, Aude Terray perpetuates the widespread misconception that Queen Maria negotiated one-on-one with the 'tiger' Clemenceau (p. 142) during the Paris Peace Conference and secured the establishment of Greater Romania. The statement is slightly exaggerated because Queen Maria did not decisively influence the negotiations during the conference; rather, it was an exercise in public relations.

Chapters VI, *Always higher (1923–1930)*, and VII, *The glorious years (1930–1936)*, cover a period of peak fulfillment in Martha Bibescu's life, where the author examines her relationship with Senator Henry de Jouvenel, a close associate of Aristide Briand and representative of France to the League of Nations in the Disarmament Commission. In this chapter, Terray recounts Martha Bibescu's acquisition of full ownership rights over

the Palace of Mogoșoaia and the Thirties under the authority of King Carol II of Romania, events that marked the pinnacle of the Bibescu family history. It is worth mentioning that this auspicious period was marred by the death of Lord Thomson, a long-time confidant of Martha Bibescu, a tragedy that ended with an encounter with Labour Prime Minister James Ramsey MacDonald.

In the eighth chapter, *Dynamism on all fronts (1936–1942)*, the author reconstructs Martha Bibescu's biography against the backdrop of historical events beginning with the expansion of the Iron Guard, the measures taken by King Carol II, and the assassination of influential politicians by the Legionnaires (e.g., I. G. Duca and Armand Călinescu). She then brings forth the death of Queen Maria, a friend Martha Bibescu lost during the war, and with whom she tried to reconnect several times. However, the queen's death did not seem to have affected her in particular because, as the author quoted from Martha Bibescu's diary: "She was just a woman playing at being queen" (p. 211). It therefore transpires that the resentments of the war, fuelled by her later closeness to her rivals, persisted until the queen's death. While in previous chapters Aude Terray places the Bibescu in a favorable time, in this chapter we see how members of the Legionary Movement regularly investigated the family, and thus Martha became (?) "the Freemason of Mogoșoaia" (p. 207). Also here, towards the end of the chapter, the death of George Valentin Bibescu is mentioned, along with its impact on his wife, who was forced to go through the war years and much of the communist era alone.

Chapters IX, *Princess mediator (1941–1945)*, and X, *The end of a world (1945–1952)*, bring to the foreground a difficult period in the princess's life who, despite attempts to collaborate with the Romanian authorities in order to switch sides to the Allies, was obsessively haunted by the shadow of complicity with the Germans. It is very fascinating to read the author's description of how Martha Bibescu managed to go into exile in Paris as soon as the communist regime took power in Romania and how she left her daughter and son-in-law to manage Mogoșoaia. The decision to leave her daughter behind was a sorrowful one for the princess because, later on, she made multiple efforts to get them out of Romania. This complicated period was marked by the confiscation of the palace in Mogoșoaia by the communists, with her daughter and son-in-law being relocated to Curtea de Argeș. Aude Terray recounts a series of events, some of which we believe remain unclear, such as how the princess managed to support herself in Paris after the war years. In fact, one question that Terray did not explicitly answer is whether Martha Bibescu only saved herself when she went into exile in Paris, leaving the others behind, or whether she chose to respect her family's decision not to leave Romania. Clarifying the issue would have added valuable insight to her book.

The last two chapters, *Towards a certain serenity (1953–1962)* and *Twilight (1963–1973)*, reflect Martha Bibescu's reintegration into a climate of normality, as she manages to regain her financial stability and to bring her daughter and son-in-law to Paris. We believe that, in this context, it would have been worthwhile to include more details about her relations with the new authorities in Romania.

The author insisted on listing Martha Bibescu's post-war awards in these chapters: the Sévigné Prize, the Gustave-Le Métais-Larivière Prize of the French Academy, and the Singer-Polignac Foundation Prize for Literature. She also mentioned the awarding

of the Cross of the Legion of Honor in the rank of knight, but perhaps one of her most outstanding achievements was the publication of the book *La Nymphe Europe: Mes vies antérieures*. She had hoped to publish her memoirs as early as the 1920s, but upon their release, they were not particularly successful. At the same time, Terray notes that, despite Bibescu's efforts as a writer, she died with one bitter disappointment: she never managed to enter the French Academy.

In other words, Aude Terray's biography of Martha Bibescu is modest but not monotonous. It is a popularizing work that does not make a significant contribution from an academic perspective. It is suitable for the general public and serves as a recreational read, as professionals are still waiting for unpublished documents about Martha Bibescu, held at the National Library of France, but unavailable for consultation without her descendants' consent. Through Terray's fluent and pleasant wording, her book has undoubtedly brought the princess of Mogoșoaia back into the public eye, both in France and Romania. Although the biography is not impressive in terms of bibliography, we appreciate the sources she consulted, some of which unpublished, coming from various documentary collections and bringing some new elements. It should be noted that various passages in the work are arguable and that, often, the author's approach was not impartial, frequently favoring Martha Bibescu.

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Mihaela GLIGOR, Ofelia THIRER (eds.), *Rîbnița însângerată. Mărturii din acele zile. Cu o corespondență între supraviețuitori* [Rîbnița in blood. Accounts from those days. With a correspondence among survivors], Ratio et Revelatio, Oradea, 2024, pp. 221, ISBN 978–630-6657–12-4

Reviewed by SORIN NEMETI*

The volume *Rîbnița însângerată* is built around documents that shed light on the events of 19 March 1944, at the prison in Rîbnița, Transnistria. I was aware of the camps established under Ion Antonescu's regime in Transnistria, and I had read Ieronim Șerbu's *Nunta în stepă*, but I had little knowledge of the crimes against humanity committed in the Vapniarca camp or in the Rîbnița prison. This was not a history taught in the 1990s as part of contemporary history courses; in the post-communist re-writing of history, the interwar Far Right was often cast in a somewhat positive light, with emphasis on its anti-communist struggle. The so-called "neo-interwar" current of those years valorized interwar Romanian society while covering up, through silences and omissions, the Iași pogrom, the Legionary rebellion massacres, and the concentration camps of Transnistria. This is why bringing these testimonies back into circulation is particularly important today, as we witness a resurgence of far-right radicalism.

As Mihaela Gligor explains in her Afterword, the book grew out of her encounter with Ms. Ofelia Thirer, daughter of Professor Ihiel Benditer. Ms. Thirer entrusted her with the dossier her father had compiled about the Rîbnița massacre, containing the testimony of survivor Matei Gall and his correspondence with two other survivors, Gall himself and Pinhas Fischbach.

The events described are as follows: on the night of 19–20 March 1944, the Kalmyk Cavalry Corps (a company of Kalmyks enlisted in the Waffen-SS), led by officer Namîsov, murdered more than 200 prisoners in the cells of the Rîbnița prison. Among them were 54 Jews transferred from the Vapniarca camp in Transnistria. Vapniarca had held Jewish prisoners from the Romanian Kingdom accused of communist ties or sympathies; on 9 November 1942, 1,179 Jewish detainees were sent there. For six months, they were fed exclusively on fodder peas, an inedible plant that poisoned them and caused paralysis. In November 1943, 54 of these detainees were transferred to Rîbnița, where they were executed. Only three men survived: Matei Gall, Pinhas Fischbach, and Iosif (Isac) Walter. Ihiel Benditer had also been imprisoned in Vapniarca alongside them but, in 1943, was transferred to the Grosulovo camp.

Rîbnița însângerată centers on two testimonies: that of Pinhas Fischbach – partially published earlier in Benditer's book *Vapniarca* – and that of Isac Walter, preserved in the United States Holocaust Memorial Museum Archives. Added to these is a body

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ofcorrespondence (26 letters) exchanged between Ihiel Benditer, Matei Gall, and Pinhas Fischbach from 1993 to 2000, discussing their past experiences and their efforts to publish and bring to light the events of Vapniarca and Rîbnița. The volume also includes six appendices, transcribing documents of the time or further letters exchanged by various figures involved in piecing together this dossier on the massacre of 19–20 March 1944. The book is the outcome of collective effort: Mihaela Gligor wrote the Afterword, Ofelia Thirer contributed an Argument, and together the two editors authored an Editorial Note. The book is enriched by contributions from renowned Holocaust scholars: the Preface is by Radu Ioanid, while Paul A. Shapiro provides an Introduction and historical context.

The two testimonies – by Pinhas Fischbach and Iosif (Isac) Walter – are harrowing. The prisoners were waiting for repatriation, confined to their cells. On the night of the massacre, the guards abandoned their posts so as not to be witnesses to what was to follow. Prison commander Văluță led the Kalmyks from floor to floor, room to room, executing every prisoner. Fischbach was shot in the leg, treated by Matei Gall, and the two managed to escape together. Walter recounts much the same, though in his version the perpetrators are identified as Vlasovites. He survived by hiding beneath the corpses until Romanian military authorities arrived, after which he fled and was helped by Moldavian peasants.

Particularly telling of the 1990s atmosphere are the letters exchanged between Benditer, Gall, and Fischbach. They convey the survivors' determination to make their testimonies public, to tell the story of their lives in the camps, and to expose war crimes. In 1993, Gall wrote (p. 102): "…in this respect, I believe we must write again and again, without ceasing, because the Holocaust must not be forgotten. (…) There are still so few of us alive who saw and endured the martyrdom of the Holocaust. For the younger generation, this tragedy is known as if it were but another aspect of ancient Greek tragedies."

I did not learn in school about the Holocaust of the Jews, about the Transnistrian camps, pogroms, and persecutions in Romania. Instead, we were taught a sanitized history in which Ion Antonescu was presented more as a savior of Jews – exactly as Gall noted in a 1994 letter to Benditer (p. 116): "As for what you wrote about the colloquium on the Jews and Antonescu: the issue seems to me extremely complicated and controversial. Without doubt, the period has a dual character: at first, the Romanian army killed 200–300 thousand Jews in the most barbaric way, a fact now denied in Romania; yet at the same time, it is true that in the final phase of the war the Antonescu government saved the Jews of southern Moldavia, Wallachia, and southern Transylvania." Holocaust denial and the portrayal of Antonescu as a patriotic Romanian who, while constrained by circumstances, allegedly saved more Jews than he killed, have found their way into the public sphere. Gall even heard of Romanian Jews who supposedly planted trees at Yad Vashem in Antonescu's memory, in recognition of his "saving" some Jews of Romania – and he wondered whether such a thing could really be possible.

To escape the trap of a partisan, falsified history, it is always wise to ask how others, from outside, perceived those same events. In this regard, a passage from Hannah Arendt's *Eichmann in Jerusalem* is illuminating. I learned from it how different states (and peoples) treated Jews under German occupation and anti-Jewish legislation. Eichmann claimed that in Romania, his "good organization" had actually helped the victims. As Arendt writes: "In Romania even the SS were taken aback, and occasionally frightened, by the horrors of

old-fashioned, spontaneous pogroms on a gigantic scale; they often intervened to save Jews from sheer butchery, so that the killing could be done in what, according to them, was a civilized way. It is hardly an exaggeration to say that Romania was the most anti-Semitic country in prewar Europe. (…). In August 1940… Marshal Ion Antonescu… declared all Romanian Jews to be stateless, with the exception of the few hundred families who had been Romanian citizens before the peace treaties. (…). Hitler himself was aware that Germany was in danger of being outdone by Romania, and he complained to Goebbels in August 1941… that a man like Antonescu proceeds in these matters in far more radical fashion than we have done up to the present." At first I thought Arendt had overstated the case, but then I saw how she described countries like the Netherlands, Denmark, and Bulgaria, which sought to circumvent the anti-Jewish legislation imposed by the Germans. Historical restitutions such as those in Radu Ioanid's *Pogromul de la Iași* (Polirom, 2021) or in *Rîbnița însângerată* show us that we must re-evaluate the history taught in schools – before it is too late.

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Florin BUHUCEANU, *Homoistorii. Ieșirea din invizibilitate* [Homohistories. Emerging from invisibility], Humanitas, București, 2022, pp. 268, ISBN 978–973-50–7575-0

Reviewed by ANDREEA-SABINA COJOCARU*

Research into the history of homosexuality is often reduced to a purely ideological gesture. However, the refusal to address this subject is itself an ideological act, and one that actively contributes to the exclusion of certain realities from collective memory. Recognizing this symmetry, we realize how counterproductive such a debate is. Instead of focusing on methodological rigor and critical evaluation of sources, discussions often get stuck in a rut where the mere choice of a sensitive topic is perceived as a form of partisanship.

It is not surprising, therefore, that historians who choose to research such topics are sometimes criticized for disregarding the long-outdated principle of objectivity and for abandoning rigorous analysis of sources in favor of constructing a militant discourse. However, maintaining historical silences has never been a viable option; such topics must be problematized and integrated into historiographical discourse.

This is also the stated purpose of the book *Homoistorii. Ieșirea din invizibilitate* [Homohistories. Emerging from invisibility] written by Florin Buhuceanu, human rights activist and founder of the Museum of Queer History and Culture in Romania (a private initiative), known since the 1990s as one of the first people to openly declare their gay sexual orientation at a time when this was still a criminal offense. In his words, this endeavor, which began after decriminalization and ended two decades later,[1] is "a mere starting point that calls for further efforts to meticulously search the archives, identify, and analyze documentation that, for now, can only be guessed at and glimpsed" (p. 8).

We begin by stating that the historical sources used by Buhuceanu are diverse and carefully selected, and by no means fabricated to support a narrative, which is crucial for a historian. Nevertheless, considering his background as an activist, and examining the book as a "work in progress," there are a few nuances that we will attempt to present and discuss below.

The volume is organized chronologically into three main parts, totaling sixteen chapters: the first part, consisting of five chapters, traces the genesis and consolidation of discourses on homosexuality in Romanian modernity and in the interwar period; the second part, the most substantial, comprising seven chapters, is mainly focused on analyzing homosexuality in communism, from the legal and ideological framework to case studies that show the control mechanisms and survival strategies. Finally, the third part, consisting of four chapters, focuses on post-communism, examining legislative changes,

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[1] The first edition of the volume was published by Maiko in 2011, followed by a second in 2016, the latter being appended to the version we are discussing in this review.

the emergence of public visibility, and the configuration of a queer social and cultural space after 1989.

While the first part of the book works well as an introduction to the subject, with a balance that leans towards presenting famous people who were known or found to be homosexual in past centuries, the second one focuses on how homosexual identity was instrumentalized by the communist regime in Romania and subsequently weaponized against people from various social classes, as long as they were considered enemies. All in all, the last part is recognizable through a personal style, as the stories presented are otherwise woven together since most of them were experienced by the author.

Of the few works dedicated to this subject that may provide an adequate understanding of the histories of non-heteronormative relations in Eastern Europe, what stands out is the authors' constant effort to demonstrate an apparently indisputable fact: the mere existence of homosexual people throughout history. This insistence should not be viewed as a methodological weakness, but as a natural reaction to their systematic absence from the dominant historical discourse.

The first chapter, entitled *Preistorii* [Prehistories], is a brief introduction to homosexuality in the ancient and medieval world(s). This attempt to recover invisible histories is certainly a double gesture: first, it restores the visibility of excluded identities through popularization, and second, it challenges the heterocentric norm of historiography. In the absence of such obvious, irrefutable facts in the field of Romanian history, we can understand the logic behind the approach to the subject of the history of homosexuality (regardless of gender) as a history that must prove its anchoring throughout our times.

Because sustained research is lacking, the few existing studies are forced to begin by challenging a pervasive false assumption: the idea that "homosexual people are an ideology." This assumption is not accidental. As Florin Buhuceanu argues, the detrimental use of language throughout history has reinforced and given power to such claims. He later observes that most of the terms used in contemporary times to refer to homosexuality (such as "uranists," "sodomites," "inverts," or "pederasts") describe homosexual individuals in terms of public morality, such that once they left the private sphere, they could only be "obscene."

He argues this thesis in the following chapters on the beginning of the twentieth century and the interwar period in Romania. Even from the beginning, the author manages to intuitively grasp the interpretation regarding the importance and power of language. However, when speaking of the medical-scientific discourses on homosexuality emerging in late modernity, Buhuceanu fails to provide the necessary historical mechanisms to clearly delineate its key stages. The absence of contextualization, specifically regarding the beginnings of sexology and late nineteenth-century developments in psychiatry, could result in truncated understandings of how homosexuals were represented across different historical periods. Although the book does not aim to elaborate on the scientific dimension, a key role of such writings could precisely be the clarification and simplification of these aspects for a broader audience.

In addition, the book could have devoted more attention to a pivotal moment: the reform of Carol II's new Penal Code in 1936 which marks the moment when homosexuality was codified as a criminal offense. Given its significance for the legal and social regulation

of homosexual behavior, Buhuceanu could have elaborated on the causal relationships and socio-political factors that led to the adoption of this law, providing a deeper understanding of the context in which homosexuality was criminalized, rather than just mentioning other countries that incriminated these people based on their sexual orientation.

As mentioned earlier, Buhuceanu uses a variety of sources, explaining this choice by the idea that methods of informing people about homosexuality 100 years ago were varied and all must be given equal consideration. He states that "the press, literature, medical and psychological treatises were the main public sources of information. Illustrations of Saint Sebastian as the patron saint (of homosexuals), reproductions of Jean Cocteau's drawings, Shakespeare's sonnets, and Baron von Gloeden's homoerotic photographs circulated among connoisseurs" (p. 49).

Back in the days, Buhuceanu argues, the press allocated space to such sensationalist news items in order to attract readers' attention and incite public condemnation of homosexual behaviors. The author focuses on multiple occasions on analyzing the Romanian press from the first two decades of the twentieth century, pointing out some examples: Between 1906 and 1909, Germany was rocked by a major scandal known as the Eulenburg Affair (also called the Moltke-Harden Affair or the Harden-Eulenburg Affair) in which several members of Emperor Wilhelm II's inner circle, including Prince Philipp zu Eulenburg and General Kuno von Moltke, were accused of homosexuality. These accusations were brought to the public's attention by journalist Maximilian Harden who quickly inflamed public opinion. Given the importance of this scandal in Germany, it did not take long for the European press to pick up on the story. Romanian journalists showed interest in the subject and sought to justify the need for debate by referring to the so-called moral crisis facing Germany, which they believed would, sooner or later, also affect Romania.

As the analysis unfolds throughout the book, we notice that the boundaries between social reality and literary representation are insufficiently marked, making it difficult to identify the precise moments when the inquiry moves from one register to the other. The sections on literary portrayals of homosexuality transition somewhat abruptly to the ones on Romanian literature on the subject. While this shift is noteworthy, the discussion remains rather superficial – more of a descriptive enumeration than a sustained analysis. Authors mentioned in this context include Bogza, Panait Istrati, Ionel Teodoreanu, Tudor Arghezi, and Mateiu I. Caragiale; however, they are not properly referenced or critically integrated into the text.

There are also sections composed as a collection of memoirs: some are excerpted and compiled in a rather simplistic manner, while others, such as the one based on Petre Sirin's diary from 1949–1959,[2] are presented in an extensive narrative along with many long quotes from the diary. Owing to the author's limited historical training, quotations drawn from memoirs or oral history interviews are seldom subjected to critical scrutiny or situated within a broader contextual framework.

A more comprehensive treatment of Ion Negoițescu's work would have been particularly valuable given his central role in articulating a Romanian discourse on homosexuality. This prolific case is mentioned rather briefly in various chapters dealing

[2] Sirin 2013.

with the subject of homosexuality in fiction and diaries, with *Straja dragonilor* being the first such example. Buhuceanu uses quotations to convey how *Straja dragonilor* was received by critics at the time of its publication, but does not sufficiently develop the main themes addressed directly by Negoițescu.

Another important note for demonstrating the personal nature of documenting the topics covered is the use of oral history interviews, with the book presenting excerpts from a total of 56 interviews, 47 of which are with gay men and only 9 with lesbian women. In this regard, Buhuceanu states relevant conclusions such as: "Public order coincides with moral order, and the public articulation of such otherness contradicted and disrupted the projected national homogeneity. Female homosexuality did not provoke to the same extent; lesbians are rather invisible in the eyes of police institutions or the press" (p. 46). However, these insights remain underdeveloped, considering that the uneven distribution of sources contributes to the perpetuation of the very imbalance the author identifies.

Although this is not, ultimately, a rigorous academic study – as evidenced by the often incomplete citation of primary sources and the lack of detailed references, especially in the case of oral history interviews – the book makes an important contribution to the development of a general framework for understanding the subject (especially in the context of the lack of any previous such endeavor originating in the humanities). There seems to be an internal conflict between what the author presents and what he expects to argue. In other words, there is a methodological inconsistency between what the author sets out to demonstrate and the way the sources are handled. Although all sources are initially treated as important, the quantitative mechanism used to assess them results in uneven citation practices and unequal analytical attention.

All in all, the claim that historians or activists are inherently engaging in advocacy due to their focus on specific topics is grounded in the argument that preoccupation with "sensitive" issues can potentially politicize historical research. As for Buhuceanu's book, the main negative comments that could "harm the cause" of the book relate to the way in which the author uses or quotes sources. Just as everything is political, so are sources, and when they float in a sea of uncertainty, they risk being exploited in ways that do not serve the simple cause of entering historiography as a relevant and necessary topic for understanding the past.

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Muzeon Exhibition, photo by Beáta Barbocz

MUSEUM TALKS

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MUZEON – THE STORY OF YOUR JEWISH NEIGHBOR. INTERVIEW WITH DAN CRAIOVEANU

By ANA-MARIA GRUIA*

Though several private businesses have adopted the label "museum" without meeting the legal criteria and often failing on the educational front, the Muzeon in Cluj is not among them. The *Muzeon – The Story of Your Jewish Neighbor*, owned by Dan Craioveanu and based on the story of his ancestors, is appreciated for its design, means, and message. We asked him more about the creation of the Muzeon and the curatorial principles and choices that have shaped the "museum-like experience" it provides.

A.-M.G.: How did Muzeon come into being? What made you decide to open a museum? Had you ever imagined owning a private museum?
D.C.: No, I never imagined it. It's a personal story, but I can elaborate a bit. When my former wife, Flavia, was studying Comparative Literature, she was also taking Hebrew at the Institute of Jewish Studies. There, she got involved in setting up the Holocaust Museum of Northern Transylvania. For her undergraduate thesis, she worked on my family's genealogy, so we started looking into family documents and asking my mother about all our relatives. Once we gathered all the sources and realized we could build some interesting stories, we thought it might be worth showing them to the public – not necessarily in the form of a museum. But then we started to consider this possibility, especially since there was no other museum of this kind in Cluj. The one at the Institute of Jewish Studies isn't always open to the public and only offers limited information.

Meanwhile, we traveled extensively to Jewish museums, especially in Europe, and saw that there was indeed public interest. People were willing to pay for a ticket to see this kind of content, so we thought it could be sustainable.

So one day, in 2018, we said, "Let's see if we can actually build a museum." We started thinking about how it should be, though of c ourse, we didn't have the funds. Through a start-up financing program, we founded Muzeon SRL, and later an NGO as well, Muzeon Association. This helped us access more funding, find a space, and begin the project – but then the pandemic hit. Because of our initial start-up contract, we had to set up and open during the pandemic.
A.-M.G.: You had the objects, the stories, the concept – and then someone had to actually create the museum. How did you choose the concept and the execution, which is so highly praised? For example, on TripAdvisor, Muzeon ranks sixth among all attractions in Cluj-Napoca and won an award in 2024.
D.C.: The concept is storytelling. We wanted to connect the stories we had to specific objects and tell them in first person narration. Flavia did most of the work on this, together

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withCamelia Șișak, for the architecture and some of the artistic arrangements.[1] They studied visitor attention span in museums and decided on a more minimalistic approach. At the beginning of a museum visit, you're very attentive, you read everything, but gradually, you read less and just glance at what catches your eye. And you might just be an average visitor, not a historian or someone personally involved in the subject matter. An ordinary visitor can focus on up to six points of interest in one room, after which attention drops. When moving to another room, that room should look completely different to trigger a mental reset and regain attention for another six elements. That's why each room at Muzeon has a different design, and the exhibits are displayed differently, to maintain interest.

In **the first room**, resembling a room in an old house, the objects are placed on shelves, a table, or other supports. It's the introductory space, where you choose to listen to the story narrated by one of three guides, characters based on members of my family. **The second room** has a synagogue bench where you can sit, listen to the audio guide and maybe rest. Then you enter **the third room** with a suspended black box with holes to look through. Here, you interact, pulling art panels, pushing them back, using 3D glasses. Then comes a space with a wall covered with newspapers and accusing hands – this **room is dedicated to antisemitism**, the interwar period, and the eventual branding with the yellow star. We wanted to show how the press and public discourse had the greatest impact on perceptions of Jews. In the center, we placed a German portable typewriter from 1939 and inserted a Romanian-language newspaper from that time. In this fourth room, Camelia wanted visitors to feel uncomfortable. We discussed several ideas, even physical discomfort, but kept the accusatory hands. Initially, we wanted to use augmented reality: a screen and camera that would detect the visitor's image and attach a yellow star to their chest. Due to costs, we opted for a simpler solution: a mirror with a star affixed at chest level. The effect is somewhat there, though not exactly the same.

The next room, **the train car**, also looks different. I was fixated from the start on recreating a crowded train car, maybe with mannequins. In the end, Camelia came up with the idea of using printed canvas. I think it works well, evocative without being kitschy. We used metal parts from a narrow-gauge train and reconditioned wood, mounting the exterior on the inside for recognizability. At the exit, we placed a book listing deported Jews from Cluj. The names came from the Yad Vashem museum in Jerusalem, based on personal testimonies, the most accurate records, as many deportees were never officially registered or their files were destroyed. The book contains over 10,000 names and has become one of the most visited features, as people come to look for their own or relatives" names. We reprint it regularly due to wear and tear.

The next room, dedicated to the **Holocaust**, is the museum's largest. Up to this point, all three guides tell largely the same stories, about traditions, family, religion, and life in Cluj, but from their own point of view. From here on, their narratives become personal. Each has a section with artifacts relating to labor camps, Auschwitz, and the Kasztner transport. Each of the three sections includes a suitcase with objects and a virtual reality station.

Guide Paul is in a ***labor camp***; we exhibit a wooden wheelbarrow, a pickaxe, a sledgehammer, and a wooden suitcase from such a camp, filled with personal belongings.

[1] Architect, Ph.D. candidate, Faculty of Architecture, Technical University of Cluj-Napoca, currently part of the team of Atelier Mass.

The VR station shows prisoners digging trenches while German or Hungarian guards watch. It's me, filmed with a 3D camera from the exact same angle digging in different outfits. The clips were superposed, so that several "workers" appear, while the soldier images are from historical photos.

Guide David ended up in ***Auschwitz***, and the section includes a symbolic element: a power pole with barbed wire, visually associated with the Holocaust. There, the wall is stripped to the bricks in a light-ray shape, with semicircular paving beneath as if illuminated. Another suitcase holds David's belongings, including a recreated prisoner uniform. The VR station renders a prisoner in a camp barrack, reconstructed in 3D using archival photos. In the background, we included a gate made from five old planks, a nod to the fact that at Auschwitz, on the Appellplatz (roll call square), prisoners were lined up in rows of five to make counting easier. They tried to arrange themselves so that the strongest stood on the outside, able to support those who were weaker, sick, or exhausted. Roll call could last for hours, and the collapse of a single prisoner often meant a death sentence. We left this symbol unexplained, as a hidden detail to discover.

Then comes the ***Kastner transport*** section. A spotlight illuminates a map on the wall, showing the train's route from Cluj to Budapest, to the Bergen-Belsen camp, then to Switzerland. The VR station recreates the interior of a train car similar to the physical one in the museum, but with crowded people inside, recreating a scene from Iulia's journal, the third guide. The subject is controversial: some say that only Jews who could afford the ticket were saved, and some visitors argued it shouldn't be included. But it's a historical fact. This train left from Cluj, and we can't ignore it.

In the **final room**, we installed three pillars, each with an object belonging to the three guides and photos representing the lives of their families post-WWII. There's a striking dot representation on the wall: 18,000 dots, of which 2,000 are green, symbolizing the deportees from Cluj who returned. On the right wall, we continued a visual line started after the first room, where we had statistical representations of the origin and professions of Jews in Transylvania and Cluj's Jewish population growth. In the last room, this black line shows the decline in the Jewish population during the postwar and communist periods. A map shows migration directions, and we sometimes receive negative feedback about how we depicted Israel's disputed areas (e.g., the Golan Heights, the West Bank), regardless of the visitor's political stance.

Another curatorial strategy was to paint everything in achromatic grey and highlight only the key points of interest in color. We also chose low-tech solutions due to limited funding and a deliberate "economy of means."

A.-M.G.: What kind of heritage objects does the museum hold, and how did you obtain them?

D.C.: Most are family items, while others were purchased or donated. We tried to borrow more original pieces (from Auschwitz, e.g.), but transport and insurance costs were prohibitive. In some cases, we created replicas – for example, the Auschwitz prisoner uniform. It would've been very difficult to maintain the microclimate conditions needed for authentic textile artifacts.

A.-M.G.: From your perspective, what are Muzeon's greatest strengths?

D.C.: First is the concept, relatively new, at least in Romania. That's a strength, but sometimes also a challenge. Some visitors are pleasantly surprised by the minimalistic

design, a smaller number of objects, the unique design of each room, the chronological and intuitive storyline. The audio guide offers a personal, emotional narrative that helps visitors connect more deeply. This emotional layer makes the experience very different from a distant, factual museum display. Personal storytelling helps make learning about history easier and more accessible, even for young people who might otherwise find history boring.

However, some visitors are disappointed it is not a traditional museum and refuse the audio guide, even though it's essential. The biggest downside of a unique concept is the mismatch between expectations, triggered by what the word "museum" suggests, and reality. That's why we use the phrase "museum experience," which better captures what Muzeon is.

A.-M.G.: What have been the most rewarding moments since Muzeon opened?

D.C.: The most rewarding moments are when we see deeply moved visitors, especially young people who feel the need to say something at the reception, to interact, to linger in the story. Some even insist the museum must remain open and leave donations. Honestly, that's why we're still open – because financially, it's not a business.

A.-M.G.: What challenges have you faced – financial, administrative, or otherwise?

D.C.: There have been challenges from the start. Everything cost more than we expected. But the biggest issue has been finding funding to keep the museum running, beyond ticket sales. We've only received grants for new activities, not for basic operation. And ticket revenue fluctuates greatly depending on the season or surrounding events. Crises can happen anytime: first the pandemic, then the war in Ukraine. 2023 was a good year, but the Middle East conflict that followed affected us badly. People often don't distinguish between Jewish ethnicity and the Israeli government's actions. From this perspective, the museum's theme is a disadvantage. And another issue is that culture – museums included – is one of the first things people seem willing to give up.

A.-M.G.: What does the future look like for Muzeon?

D.C.: The future is uncertain. Our biggest concern is the space. The previous owner sold it, and luckily the new one kept the rent and the collaboration, but he's also considering selling. There's a chance we might get a space from the Jewish Community in Cluj, but things are more complicated than they seem, as central properties are in high demand. And it would mean relocating from a place where people already know us.

We hope to keep our current location as long as possible, but in parallel we've started digitizing the museum. We're not planning the usual virtual tour model, but something innovative using a video game engine. This allows users to explore the museum freely, like a character in a video game, with the audio guide integrated. This version would let us grow the museum online, not just as a copy, but as an independent product where we can add new objects and spaces, since the virtual world has no physical limits.

In the physical museum, we'll continue changing the temporary exhibitions, ideally every three months.

A.-M.G.: Thank you so much for the interview, and I wish you great success. I think Muzeon already holds a special place on Cluj's cultural scene. I am also very curious about the online version, looking forward to updates on that!



Fig. 1. Dan Craiovean (photo by Beáta Barbocz).



Fig. 2. The first hall (photo by Beáta Barbocz).



Fig. 3. The typewriter in the anti-Semitism hall (photo by Beáta Barbocz).



Fig. 4. The accusing hands in the anti-Semitism hall (photo by Beáta Barbocz).



Fig. 5. The silhouettes inside the train car (photo by Beáta Barbocz).





Fig. 6. The exterior and interior of the actual train car in the Muzeon (photo by Dan Craiovean).



Fig. 7. One of the suitcases in the Holocaust hall (photo by Beáta Barbocz).



Fig. 8. The final hall (photo by Beáta Barbocz).