

## THE ISSUE OF GELLÉRTEGYHÁZA – FROM ANOTHER PERSPECTIVE

### Thoughts on the double-sided rectangular fire strikers

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*It is a common tendency in studies presenting 10th–11th century assemblages to interpret foreign or atypical finds as mere trade goods. This one-dimensional perspective is often coupled with the “shackles of linearity”, which envision the transformation of pagan Hungarians into Christian Hungarians in the 10th-century Carpathian Basin as a straightforward, linear process. In this view, anything associated with the “old world” is considered outdated – at best, its survival is tolerated in certain geographical contexts. However, this is a reductive interpretation, as it fails to take into account the continuous possibility of influx and integration. This oversight is particularly striking considering the well-known admonitions of our great state-founding king, Saint Stephen I, to his son: *Nam unius linguae uniusque moris regnum, inbecille et fragile est* – that is, “For a kingdom of one language and uniform customs is weak and fragile.” The following reflections have emerged at the level of problem formulation, in connection with the finds from the cemetery at Orosháza–Rákóczi-telep, more commonly known as the Gellértegyháza cemetery.*

**Keywords:** fire striker, Orosháza–Rákóczi-telep, Gellértegyháza, Kyivan Rus’, Árpád Period, cemetery

### GELLÉRTEGYHÁZA IN HUNGARIAN ARCHAEOLOGY

Within the collection area of the Orosháza Museum, a surprisingly high number of Árpád-era church sites have been identified. As their number continues to grow, it is becoming increasingly difficult – if not impossible – to match them with the place names preserved in historical sources. There is only one site that, despite differing scholarly opinions, stands out as an exception: Gellértegyháza, located in the outskirts of today’s Orosháza–Rákóczi-telep (ZALOTAY 1957). Its outstanding significance, however, lies not in this potential identification, but in the archaeological phenomena uncovered at the site. For decades, scholarly literature has dealt with the relationship between the graves from the period of the Hungarian conquest and the church found here, as well as the surrounding cemetery.

Based on the current state of research, it seems that the eponymous cemetery unearthed at Orosháza–Rákóczi-telep, in the area known as Újosztás, is indeed of the so-called “Gellértegyháza type” – that is, a form of continuity can be observed between the pagan, village, and churchyard burial grounds. The area was first used during the pagan era, but not long afterwards – probably under pressure from above – the local community converted to Christianity. They retained their old pagan traditions for quite some time, and traces of these customs could still be observed sporadically even during the construction of the church. When the church was completed, the community began to bury their dead primarily around it. The memory of earlier burial customs gradually faded, and the previously typical grave goods and accompanying artifacts disappeared from the burials, marking the beginning of a new era in the life of the community (BIRÓ 2020, 342).

### THE FIRE STRIKER FROM GELLÉRTEGYHÁZA

The cemetery at Gellértegyháza has yielded several elements which, although not unique within the Árpád-era Carpathian Basin, still merit special attention due to their rarity. Among these are fire strikers – specifically, those belonging to the so-called oval type. While lyre-shaped strikers dominate the Carpathian

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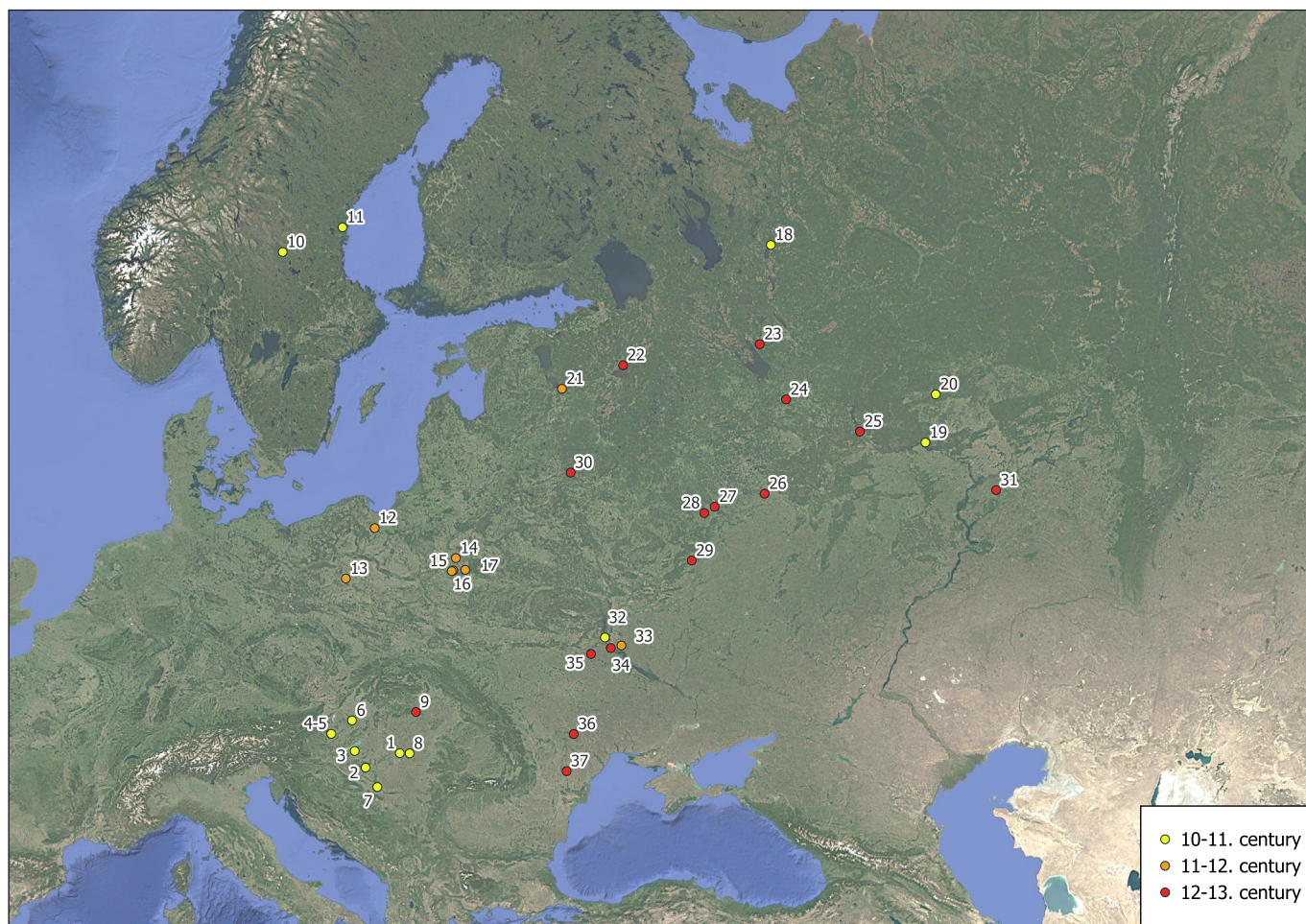


Fig. 1. Map of the locations included in the text. 1: Csanytelek–Dilitor, Grave 37; 2: Ellend I, Grave 251; 3: Fiad–Képuszta, Grave 67; 4–5: Szombathely–Kisfaludy S. Street, Graves 42 and 87; 6: Győr–Újszállások; 7: Vukovar–Lijeva Bara, Grave 89; 8: Orosháza–Rákóczitelep; 9–37: analogies in Northern, Central and Eastern Europe (see text and tables)

Basin's archaeological material from the Late Migration Period onward in Central and Eastern Europe, the oval and rectangular types serve as excellent indicators of regional movements and interconnections.

Although well-elaborated, the typological system and terminology developed in Russian research are not established in Hungarian archaeology, where all closed-body examples are uniformly referred to as of the “oval type.” I adhere to this terminology for two reasons: first, because the number of domestic examples is low and their morphological variation is considerable; second, because all known variants of the oval type are also attested in their North European homeland from the pre-Viking era onwards. Ethnographic terminology used by Balázs Tóth refers to these as double-sided, rectangular types (TÓTH 2021, 98–100).

Fire strikers classified as double-sided, rectangular types (Fig. 1. 18) first appeared in Northern Europe during the late Merovingian and early Viking periods. Referring to an example found in the cemetery of Kargopol (Каргополь, Russia, Arkhangelsk region), Makarov noted that although such fire strikers appear later in the Novgorod chronology, they can already be traced in the pre-Viking legacy of the Finno-Ugric populations in northern areas. He dated the Kargopol striker to the period between the late 10th and early 12th centuries, supporting this with comparative material from contemporary Finno-Ugric sites (MAKAROV 1982, 85, Fig. 3.13). Arkhipov analyzed material from 9th–11th century Mari cemeteries (ARKHIPOV 1973, 55, Fig. 70.14–15), including the Dubovsky (Fig. 1. 19) fire striker, which bears morphological resemblance to the Hungarian curved-walled types. He also referenced similar specimens from Novgorod, dated to the early 12th century, but pointed out that the beads associated with the Dubovsky example cannot be dated later than the turn of the 10th–11th centuries. Arkhipov's Type 3 includes what he called hexagonal



strikers (three examples from Dubovsky and Veselovo, *Fig. 1. 20*), which, like the oval types, can be dated to the Viking Age (cf. KEYLAND 1916, *Fig. 10a, 11e*, from Swedish sites, *Fig. 1. 10–11*). He also cited the work of Ella Kivikoski, who dated this type between 800 and 1050 (KIVIKOSKI 1973). While lyre-shaped strikers are the most common in the region, the oval and hexagonal types are considered unique.

It appears that the Northern European distribution area of the fire strikers under study did not extend to Volga Bulgaria in the 11th century. Halikov dated the curved-walled, oval examples to the 12th–13th centuries based on parallels from Novgorod (Type 2, XLIII/9–10, 13), while the oval and rectangular variants were, in his view, first introduced in the early 13th century and remained in use in the region until the late Middle Ages (*Fig. 1. 31*) (HALIKOV 1985, 123–127, Table XLIII. 9–13). In her typological classification, Savchenkova confirmed Halikov's results, and also based her evaluation on the Novgorod chronology (SAVCHENKOVA 1996, 55–56, *Fig. 22. 12–19*).

The dating significance of Novgorod fire strikers (*Fig. 1. 22*) is considered fundamental across the territory of Rus' (ARTSIKHOVSKY–KOLCHIN 1959, 101, *Fig. 84. 9–11*), although their appearance in the northern and western zones may already be assumed for the 11th–12th centuries. These areas were in direct contact with Germanic and Finno-Ugric populations. In Pskov (Псков, RU, Pskov region, *Fig. 1. 21*), dendrochronological data suggest that such strikers appeared at least a century earlier than in Novgorod (LOBANOV 1989, 83–84, *Fig. 2*). Relying on the Novgorod material, Nikol'skaya constructed a chronological typology (NIKOL'SKAYA 1987, 103, *Fig. 53. 13–16*). During the 10th–11th centuries, the dominant forms were lyre-shaped strikers with central tongues; in the 12th–13th centuries, their elongated, tongue-less variants were widespread, and from the early 13th to the 15th–16th centuries, oval/rectangular types remained in vogue (Slobodka, RU, Oryol region, *Fig. 1. 29*). Double-sided, rectangular/oval variants were widely distributed throughout the Rus' territories. A few supporting examples are as follows:

Country	Number	Region	Site	Literature
RU	22	Novgorod	Novgorod-Slavno	ARTSIKHOVSKY 1949, 146, Рис. 20, б
RU	22	Novgorod	Novinka	PRONIN 1986, 91, Рис. 3, 2
RU	23	Vologda	Minino	MAKAROV 2008, 39, Рис. 23, 11–13, Таб. 1
RU	24	Yaroslavl	Yaroslavl	VORONIN 1949, 183, Рис. 5, 2
RU	25	Nizhny Novgorod	Gorodets	MEDVEDEV 1968, 33, Рис. 8, 3
RU	26	Moscow	Rostislavl	ALEKSEEV 1974, 90, Рис. 29, 17
RU	27	Kaluga	Spas-Pereksha	NIKOL'SKAYA 1981, 83, Рис. 29, 43
RU	28	Kaluga	Serensk	NIKOL'SKAYA 1967, 116, Рис. 36, 10
RU	28	Kaluga	Serensk	NIKOL'SKAYA 1986, 50, Рис. 3, 13
BRS	30	Vitebsk	Polack	SHTIHOV 1975, 60, Рис. 31, 3
BRS	—	Vitebsk		SHTIHOV 1978, 47, Рис. 17, 22
BRS	—	—		KVIATKOVSKAJA 1998, 124, Рис. 44, 4–6
UKR	34	Kyiv	Halep	PRIKHODNYUK 1980, 94–95, Рис. 7, 4, 9

Table 1. Known bipedal, rectangular/oval variants in the Rus' area (RU=Russia, BRS=Belarus, UKR=Ukraine).

The "number" column shows the numbering of the sites used on *Fig. 1*

The territory of present-day Poland presents a particularly interesting case. Along the northern course of the Vistula River, as well as in the regions of Podlaskie and Masovian Voivodeships, a significant number of such fire strikers have been discovered. These specimens are generally dated to the period between the late 11th and the late 12th centuries. Their early appearance is clearly attributable to Viking contacts (cf. Cieple, Poland, Pomeranian Voivodeship – an elite settlement with Scandinavian elements, *Fig. 1. 12*; WADYL 2019, 193–195, Tab. 30.2; Tab. 1.4; Tab. 5.2). Some examples from Poland include:

Country	Number	Region	Site	Literature
PL	13	Wielkopolskie	Giecz	INDYCKA 2005, 191, ryc. 9, 7
PL	14	Podlaskie	Suraż	OLCZAK et al. 2024, 123–124, Table XI, 7
PL	15	Mazowieckie	Niewiarowo	MUSIANOWICZ 1955, 270, Tab. I, 5, Tab. II, 7, Tab. VI, 1–2
PL	16	Podlaskie	Czarna Wielka	PERLIKOWSKA-PUSZKARSKA 2017, 165, Ryc. 11, 8
PL	17	Podlaskie	Kuraszewo	JASKANIS 1966, 262, Tab. 15, 6

Table 2. Fire strikers from Poland (PL=Poland). The “number” column shows the numbering of the sites used on Fig. 1

A similar dating may perhaps be assumed for an example found near Chernihiv (Чернігів, UKR, Chernihiv region), which its publishers dated to the 11th century. This is particularly noteworthy, as such fire strikers are otherwise absent from the East European steppes prior to the 12th–13th centuries (YEVG-LEVSKY–POTEMKINA 2000, 187). The oval and rectangular types only became widespread in the region from the 12th century – more reliably from the 13th century onwards – and accordingly, the authors express skepticism (“if the authors’ dating is correct”) regarding the 11th century attribution of the fire striker from the Chernihiv vicinity (*Fig. 1. 33*) (Podillya, UKR, Kyiv region: ORLOV–POHORILYI 1977, Fig. 1.11). Nevertheless, the dating of this fire striker could be a key issue in evaluating the Hungarian examples, since its findspot lies at a crossroads of northern (Viking), southern (Byzantine), and eastern (steppe nomadic) cultural zones. One particularly illustrative case is a burial in Kyiv (*Fig. 1. 32*), where a fire striker was found alongside a decorated sabretache (KARGER 1958, 145, Tab. VII.3). The significance of the region is further underscored by the fact that during the 10th–11th centuries these double-sided rectangular fire strikers are entirely absent from the steppes directly adjoining the Carpathian Basin (cf. URSU 2022, 86–88, Fig. 61.10, 13) (*Fig. 1. 36–37*).

At this point, the fire striker from Muhi (*Fig. 1. 9*), associated with the Mongol invasion, must be mentioned. It was recovered from the grave of a warrior who had fallen in battle (PUSZTAI 2011, 630, Fig. 3.7). The object fits well within the broadly described 12th–13th-century East European context and, as such, can be interpreted within this eastern framework. However, it holds little relevance for the Carpathian Basin specifically. Another analogous example comes from the region associated with the so-called Black Klobuks or Black Hats (Malopolovets’ke/Малополовецьке, UKR, Kyiv region), dated to the 11th–13th centuries (*Fig. 1. 35*) (KVITNYTSKY–LYSENKO–LYSENKO 2004, 150, Fig. 3.5). Lubor Niederle was the first over a century ago to link the appearance of such objects in the Balkans to steppe Turkic peoples – a view followed by later Balkan scholarship. Željko Demo, in his analysis of the Vukovar specimen (the one most similar to the example from Orosháza), offered a corrective perspective within the Eurasian context: he concluded that the object had come from the north and had travelled a long distance before reaching Vukovar (DEMO 2009, 418–420).

In Hungarian research, this type has not attracted particular attention, as it appears both in ethnographic material and in medieval and late medieval archaeological assemblages. This is not an isolated case – similar tendencies can be observed in neighbouring countries (DIACONU 1972, 321, Fig. 1.5–7; KNIFIC 1994, 60–62, Pl. 26.6; MROČEK 2007, 60; P. HORVÁTH–TÓTH 2024). However, such observations go well beyond the scope of this paper. The first wave of oval/rectangular (i.e., double-sided rectangular) fire strikers in the Carpathian Basin probably arrived in the last quarter of the 10th century and the first third of the 11th century – primarily during the reign of King Stephen I (see *Fig. 2*), as also suggested by the Csanytelek specimen found in association with coins (SZÉLL 1941). In general, cemeteries or cemetery sections yielding this type of fire striker cannot be dated to the first half of the 10th century; rather, they appear almost exclusively in contexts dating to the late 10th and early 11th centuries. The only possible exception is a ring with a bulbous head from the Győr–Újszállások site (HORVÁTH 2014, 54, Pl. 15.4), although the associated material is mixed and fragmentary, and its connection to a cemetery is uncertain (HORVÁTH 2014, 57).



Fig. 2. Archaeological sites of double-sided rectangular fire-striker in the Carpathian Basin. 1: Csanytelek–Dilitor, Grave 37 (SZÉLL 1941, 249, X. tábla 20), without scale; 2: Ellend I, Grave 251 (DOMBAY 1961, 148, XXII. tábla 31); 3: Fiad–Kérpuszt, Grave 67 (SZÓKE 1953, 289, Planche XLII, 14); 4–5: Szombathely–Kisfaludy S. Street, Graves 42 and 87 (HORVÁTH 2016, 143, 7. tábla 11; 18. tábla 7); 6: Győr–Újszállások (HORVÁTH 2014, 303, 15. tábla 14); 7: Vukovar–Lijeva Bara, Grave 89 (DEMO 2009, 106–107); 8: Orosháza–Rákóczi-telep (BÍRÓ 2020, 336, 7. tábla 9)

The double-sided fire striker from Gellértegyháza and its Hungarian parallels can be linked – either directly or indirectly – to northern Europe: they may represent elements of trade activity or the legacy of incoming population groups settling in the Carpathian Basin. While double-sided, rectangular fire striker types are rare, they are indeed attested in the 10th–11th-century Carpathian Basin. From this point onwards, their continuity can be traced up to the modern era (see P. HORVÁTH–TÓTH 2024, 289–290, based on stratigraphic data from the 15th century). It will be the task for future research to clarify the question of their continuity within the region.

### SOME ELEMENTS OF THE CONNECTION SYSTEM OF DOUBLE-SIDED RECTANGULAR FIRE STRIKERS

Research suggests continuity between the pagan and Christian populations of Gellértegyháza. Accordingly, the horse harness graves are interpreted as a fading local pagan custom. While this is plausible, we cannot exclude the possibility that a newly arrived ethnic group adapted to local traditions. This is especially possible in a settlement whose presumed namesake, Bishop Gellért, is known from legend to have consecrated several burial sites in the region.

The aforementioned fire strikers not only originate from northern Europe; although less frequent, they also appear in the contact zones between the Rus' and nomadic worlds, where northern elements are present. An example is the Shetovytsia cultural circle (BLIFELD 1977; ANDROSHUK 1999; HAMAİKO 2017), where excavations have yielded parallels to the horse harnesses found at Gellértegyháza. In addition to the direct northern origin of the fire strikers, granulated lunulae – one example of which was found at our site – are also noteworthy.

This type of lunula is widely distributed across Central and Eastern Europe, which warrants a more cautious approach in their interpretation. A broad comparison reveals that the shape of the Gellértegyháza lunula, and Hungarian parallels in general, do not follow the forms common in Poland (MALACHOWSKA 1998) or the broader-horned types typical of the Rus' region (PUSHKINA 1996, 175–176, Fig. 2). Those are generally flatter, with the inner edge of the crescent close to a straight line, and with narrow ends (cf. Fig. 3. 7–8). In contrast, the Hungarian specimens – especially the Gellértegyháza lunula (Fig. 3. 1) – are higher, nearly fitting a circular shape, with the crescent's horns tapering and curving backward.

The closest formal parallels are found in the Dniester and Prut regions (Fig. 3. 2–6): Echimăuți (Md) (FEDOROV 1953, 112, Fig. 48, 2), Alchedar (Md), Kopievka (Ukr) (REABȚEVA–TELNOV 2010, Fig. 1, 10; Fig. 2, 15), Yurkovtsi (Ukr) (HAMAİKO 2008). A stray find from the Vinnitsa region (Ukr) probably also belongs to this geographic circle.

The formal similarity between the gold lunulae from Gellértegyháza and Alchedar is so close that they could almost be superimposed (only the drawing of the Gellértegyháza piece survives, but the asymmetrical inner curve we can observe on the horns of both specimens is identical). This is especially significant for us because in the cases of the Alchedar and Echimăuți, the existence of local jewelry production centers has been suggested (REABȚEVA–TELNOV 2010, 293), which might have long-standing traditions, as the lunulae produced here follow antique stylistic conventions.

The Alchedar, Kopievka, and Yurkovtsi sites are connected not only by the lunula, as a unique variant of the Kyiv-Volhynian pendants can be found in the material of all three sites. A similar example was also found in the Vukovar material: we see a rhombic arrangement of granulated decoration on the central, barrel-shaped part of the pendants (Fig. 4).

The double-sided rectangular fire strikers found in the Carpathian Basin appear in the graves of cemeteries or cemetery sections characterized predominantly by common hoop jewelry and other conventional finds. Besides the aforementioned items, there are hardly any artifacts that can be unequivocally identified as foreign in origin and that we could interpret as commercial goods or as the heritage of immigrant populations. Perhaps items belonging to this category include the earring decorated with loops from grave 37 on Kisfaludy Sándor Street in Szombathely, which shows Balkan connections (HORVÁTH 2016, 47–48, Plate 7,





Fig. 3. Lunulae without scale. 1: Orosháza–Rákóczitelep (ZALOTAY 1957, 12); 2: Alchedar; 3: Echimăuți (FEDOROV 1953, 112, Puc. 48, 2); 4: Yurkovtsi (HAMAİKO 2008); 5: Kopievka (REABTEVA–TELNOV 2010); 6: Vinnytsia region (HAMAİKO 2008); 7: Yurkovtsy (KORZUKHINA 1954, Tab. 7); 8: Sejkowice (MALACHOWSKA 1998)



Fig. 4. The “Volhynia – Kyiv” type with a central barrel-shaped bead decorated with a motif of upright rhombs made with granulation. Above: after DEMO 2009: 1: Vukovar–Lijeva Bara, S-2406–7; 2: Szob–Kiserdő, Grave 69; 3: Tokaj, from hoard; 4: Brănești, from grave (Md; Orhei Region); 5: Yurkovtsi, from hoard; 6: Kopijevka, from hoard; 7: Peresopnica, from burial (Ukr, Zhitomirska Region); 2: pendants from the Alchedar hoard

No. 2) (cf. OŢA 2013, 164), or the earring decorated with a grape cluster and two pairs of bead wreaths from grave 50 at the same site (HORVÁTH 2016, 48, Plate 9, No. 8). There are analogies for these in areas east of the Carpathians. The geographical location of the Vukovar fire-striker cemetery raises further intriguing questions. At the time of its use, the cemetery was not part of the Kingdom of Hungary, nor were the lunula find spots, namely Bjelo Brdo or Ptuj, which show similarities to the aforementioned items. These finds mark important nodes and trade routes.

## SUMMARY

The double-sided rectangular firestrickers became prominent in Scandinavia at the end of the Merovingian period, during the Viking Age. During the same era, in the 10th–11th centuries, they appear in the northern regions within the heritage of Finno-Ugric peoples. In Polish territories and the western lane of the Rus', these strikers had emerged by the late 11th century, becoming characteristic further inland by the 12th–13th centuries, with their use detectable even into the 15th–16th centuries. The 12th–13th century dating also applies to the Ukrainian steppe region, which at first glance may appear contradictory, since the Hungarian examples – whose foreign origin and associated finds mostly trace back to this area – are unequivocally dated to the 10th–11th centuries.



This contradiction, however, is only apparent, as the 10th–11th century Rus' maintained multiple connections with northern territories, as evidenced by archaeological finds. Accordingly, in and around Kyiv and Chernihiv, there were several regions where Byzantine and steppe cultures may have intersected with northern influences. Examples include the aforementioned Shetovytsia cultural complex and the Prut–Dniester region (TENTIUC 2020), which were part of the so-called Greek Route, facilitating contacts between the southern and northern parts of Central-Eastern Europe, the latter region connected via the Vistula–Dniester waterway system.

Based on our current knowledge, there is no evidence to exclude the possibility that Gellértegyháza was settled by people arriving from these regions at the end of the 10th century or the beginning of the 11th century. In fact, this statement could apply to all sites where double-sided fire strikers have been found. In the case of Gellértegyháza, anthropological data also support this, as the proportion of Nordic elements among the buried individuals is notably high (LIPTÁK–FARKAS 1962). Further analysis of the topic going beyond the scope of this brief study is necessary. The aim here is to draw attention to the possibility of continuous migration, even in cases where place names are not available – for example, Sorokpolány, from which a lunula closely related to that of Gellértegyháza was also recovered, found in an assemblage dated by coins from the reign of King Stephen I (KISS–KUSTÁR–ZÁGORHIDI CZIGÁNY 1999).

#### BIBLIOGRAPHY

- Alekseev, L. V. (Алексеев, Л. В.) (1974). *Drevniy Rostislavl' (Древний Ростиславль)* [Ancient Rostislav]. *Kratkie soobshcheniya Instituta arkheologii (КСИА)* 139 (1974) 81–93.
- Androschuk, F. O. (Андрощук, Ф. О.) (1999). *Normany i slov'yany u Podesenni. Modeli kul'turnoyi vzayemodiyi doby rann'oho seredn'ovichchya (Нормани і слов'яни у Подесенні. Моделі культурної взаємодії доби раннього середньовіччя)*. *The Northmen and Slavs in the Desna river area. The models of cultural interaction in the period of early middle ages*. Kijev.
- Arkipov, G. A. (Архипов, Г. А.) (1973). *Mariytsy IX – XI vv. K voprosu o proiskhozhdenii naroda (Марийцы IX – XI вв. К вопросу о происхождении народа)* [Marik, 9th–11th century. Questions of the origin of the people]. Joskar-Ola.
- Artsikhovskiy, A. V. (Арциховский, А. В.) (1949). *Raskopki na Slavne v Novgorode (Раскопки на Славне в Новгороде)* [Excavations in Slavna, Novgorod]. *Materialy i issledovaniya po arkheologii (МИА)* 11 (1949) 119–151.
- Artsikhovskiy, A. V. & B. A. Kolchin (Арциховский, А. В. & Колчин, Б. А.) (eds.) (1959). *Trudy Novgorodskoy arkheologicheskoy ekspeditsii (Труды Новгородской археологической экспедиции)* [The archaeological expedition to Novgorod]. *Materialy i issledovaniya po arkheologii (МИА)* 65.
- Bíró, Gy. (2020). Gellértegyháza és problémaköre. – Gellértegyháza and some related questions. In: László Révész (series ed.), *Új nemzedék. A Szegedi Régészeti Tanszék Tehetséggondozásának elmúlt évtizedei ünnepi kötet B. Tóth Ágnes, Kulcsár Valéria, Vörös Gabriella és Wolf Mária tiszteletére. Monográfiák a Szegedi Tudományegyetem Régészeti Tanszékéről* (pp. 323–437). Szeged.
- Blifeld, D. I. (Бліфельд, Д. І.) (1977). *Davn'orus'ki pam'yatky Shestovytsi. Naukova dumka (Давньоруські пам'ятки Шестовиці. Наукова думка)* [Ancient Rus' monuments in Sestovitsa. Academic considerations]. Kijev.

Demo, Ž. (2009). *Ranosrednjovjekovno groblje bjelobrdske kulture – Vukovar-Lijeva Bara (X-XI. stoljeće). – An Early Medieval Cemetery of the Bijelo Brdo Culture – Vukovar-Lijeva Bara (10th–11th Century)*. Musei Archaeologici Zagrabienensis Catalogi et Monographie VI/1–2, Zagreb.

Diaconu, P. (1972). Quelques considérations sur le briquets de Păcuiul lui Soare. *Dacia* XVI (1972) 317–323.

Dombay, J. (1961). Árpád-kori temetők Baranyában I. – Friedhöfe aus der Arpaden-zeit im Komitat Baranya I. *Janus Pannonius Múzeum Évkönyve* 1960 (1961) 135–158.

Fedorov, G. B. (Федоров, Г. Б.) (1953). Gorodishche Yekimautsy (Городище Екимауцы) [The archaeological site at Yekimautsy]. *Kratkie soobshcheniya Instituta arkheologii* (КСИА) 50 (1953) 104–126.

Halikov, A. N. (Халиков, А. Х.) (ed.) (1985). Kul'tura Bilyara. Bulgarskie orudiya truda i oruzhie X–XIII vv. (*Культура Биляра. Булгарские орудия труда и оружие X–XIII вв.*) [The Bilyar culture. Bulgarian working tools and weaponry in the 10<sup>th</sup>–13<sup>th</sup> century]. Moskva: Nauka.

Намаико, Наталия (Хамайко, Наталья) (2008). Drevnerusskie lunnitsy XI–XIII vv. problema proiskhozhdeniya i semantiki (Древнерусские лунницы XI–XIII вв. проблема происхождения и семантики) [Lunulae in Russia in the 11<sup>th</sup>–13<sup>th</sup> century. The problems of provenance and semantics]. *Naukovi zapysky z ukrayins'koyi istoriyi* (Наукові записки з української історії) 20 (2008) 319–338.

Намаико, Наталия (Хамайко, Наталья) (2017). Kochevnicheskie elementy v material'noy kul'ture Rusi X veka (na primere pogrebeniy Shestovitskogo mogil'nika (Кочевнические элементы в материальной культуре Руси X века (на примере погребений Шестовицкого могильника) [Migrating elements in the material culture of 10<sup>th</sup> century Russia (the example of the Shestovitsky cemetery)]. *Colloquia Russica. Seria I. T. 7. Rus' and the world of the nomads (the second half of 9th–16th century)*, pp. 71–86. Krakow.

Horváth, C. (2014). *Győr és Moson megyék honfoglalás és kora Árpád-kori temetői és sírleletei* [Cemeteries and grave finds from the period of the Hungarian Conquest in Győr and Moson counties]. Ed. Szabolcs Felföldi. Magyarország honfoglalás kori és kora Árpád-kori sírleletei 8. Szeged.

Horváth, C. (2016). *Kora Árpád-kori temető Szombathely-Kisfaludy Sándor utca területén (S-végű karikaékszerek a kora Árpád-kori Nyugat-Dunántúlon)* [An early Árpád-period cemetery in Szombathely, Kisfaludy Sándor Street (S-shaped lock rings in the early Árpád period in west Transdanubia)]. Szombathely.

P. Horváth, V. & Tóth, B. (2024). Két középkori tűzcsholó a Molnár utcából. – Two Medieval Fire Strikers from Molnár Street, Budapest. *Budapest Régiségei* 50 (2024) 287–297.

Indycka, E. (2005). Wczesnośredniowieczne cmentarzysko w Gieczu, stan. 4, woj. wielkopolskie – dotychczasowe wyniki badań [Early medieval cemetery in Giecz, Site no. 4, Wielkopolska county. The research results so far]. *Studia Lednickie* 8 (2005) 175–196.

Jaskanis, D. (1966). Materiały z badań wczesnośredniowiecznego cmentarzyska z grobami ciała palnymi w okolicy Kuraszewa w pow. Hajnówka [Research into the early medieval cremation cemetery near Kuraszewo in Hajnówka]. *Rocznik Białostocki* 6 (1966) 241–265.

Karger, M. K. (Каргер, М. К.) (1958). *Drevniy Kiev – Oчерки po istorii material'noy kul'tury drevnerusskogo goroda* (Древний Киев – Очерки по истории материальной культуры древнерусского города)

[Ancient Kyiv – Studies on the history of the material culture in the ancient Russian city]. Vol. 1. Moscow – Leningrad: Publisher of the Soviet Academy of Sciences.

Keyland, Nils (1916). *Primitiva eldgörningsmetoder i Sverige. Gnideld, vrideld, slageld. Med en jämförande studie* [Primitive fire-making methods in Sweden. Friction, twisting, impact. With a comparative study]. Stockholm: Fataburen.

Kiss, G., Kustár, Á. & Zágórhidi Czigány, B. (1999). A sorokpolányi kora-Árpád-kori temető és település etnikuma [Ethnic relations in the early Árpád-period cemetery and settlement at Sorokpolány]. In: Ágota S. Perémi (ed.), *A népvándorlások fiatal kutatói 8. találkozójának előadásai*, pp. 179–204. Veszprém: Laczkó Dezső Múzeum.

Kivikoski, E. (1973). *Die Eisenzeit Finnlands. Bildwerk und Text. Neuauflage*. Helsinki.

Knific, T. (1994). Cerkev sv. Štefana v Fijerogi pri Pomjanu v slovenski Istri. – La chiesa di Santo Stefano a Fijeroga presso Pomiano nell' Istria slo vena. *Annales* 5 (1994) 47–64.

Korzukhina, G. F. (Корзухина, Г. Ф.) (1954). *Russkie klady IX–XIII vv.* (Русские клады IX–XIII вв.) [Russian hoards from the 9th–13th century]. Publisher of the Soviet Academy of Sciences.

Kviatkovskaja, Ala (1998). *Jotvingių kapinynai Baltarusijoje* [Yotvingian cemeteries in Belarus]. Vilnius.

Kvitnytsky, M. V., Lysenko, S. D. & Lysenko, S. S. (Квитницький, М. В., Лысенко, С. Д. & Лысенко, С. С.) (2004). Pogrebeniya kochevoy znati v mogil'nikе Malopolovetskoe 3 (Погребения кочевой знати в могильнике Малополовецкое 3) [Burials of the nomadic people in the cemetery of Malopolovets'ke]. *Arkheolohichni vidkryttia v Ukrayini* (Археологічні відкриття в Україні) 2002–2003 (2004) 145–152.

Laszlovszky, J. (1991) Social Stratification and Material Culture in 10th–14th Century Hungary. In: Kubinyi, A. & Laszlovszky, J. (hrsg.), *Alltag und materielle Kultur im mittelalterlichen Ungarn*, pp. 32–67. Medium Aevum Quotidianum 22, Krems.

Lipták, P. & Farkas, Gy. (1962). Anthropological analysis of the Arpadian Age population of Orosháza–Rákóczitelep. *Acta Universitatis Szegediensis Acta Biologica* VIII (1962) 221–236.

Lobanov, N. A. (Лобанов, Н. А.) (1989). Nekotorye bytovye nakhodki iz Pskova (Некоторые бытовые находки из Пскова) [Household finds from Pskov]. *Kratkie soobshcheniya Instituta arkheologii* (КСИА) 195 (1989) 80–85.

Makarov, N. A. (Макаров, Н. А.) (1982). Srednevekovyy mogil'nik Popovo na Kargopol'e (Средневековый могильник Попово на Каргополье) [The medieval burial ground of Popovo in Kargopolye]. *Kratkie soobshcheniya Instituta arkheologii* (КСИА) 171 (1982) 80–86.

Makarov, N. A. (Макаров, Н. А.) (ed.) (2008). *Arkheologiya severnorusskoy derevni X–XIII vv. Srednevekovye poseleniya i mogil'niki na Kubenskom ozere. Tom II. Material'naya kul'tura i khronologiya* (Археология севернорусской деревни X–XIII вв. Средневековые поселения и могильники на Кубенском озере. Том II. Материальная культура и хронология) [Archaeology of a Northern Russian Village in the 10th–13th Centuries. Medieval Settlements and Burial Grounds on Lake Kubenskoye. Volume II. Material Culture and Chronology]. Moscow: Nauka.



- Małachowska, S. (1998). Wczesnośredniowieczne zawieszki półksiężycowate znalezione na terenie ziem polskich [Early medieval crescent-shaped pendants from Poland]. *Archeologia Polski* 43 (1998) 37–127.
- Medvedev, A. F. (Медведев, А. Ф.) (1968). Novye materialy k istorii Gorodtsa na Volge (Новые материалы к истории Городца на Волге) [New materials on the history of Gorodets on the Volga]. *Kratkie soobshcheniya Instituta arkheologii* (КСИА) 113 (1968) 31–40.
- Mroczek, R. (2007). Późnośredniowieczne zabytki ruchome z badań na dziedzińcu głównym pałacu Pod Blachą [Late medieval finds from research in the main courtyard of the Copper-Roof Palace]. *Kronika Zamkowa* 1-2/53–54 (2007) 39–90.
- Musianowicz, K. (1955). Przyczynki do osadnictwa mazowieckiego na Podlasiu w XII–XIII wieku [About Masovian settlement in Podlasie in the 12th–13th centuries]. *Swiatowit* 21 (1955) 247–275.
- Nikol'skaya, T. N. (Никольская, Т. Н.) (1967). K istorii drevnerusskogo goroda Serenska (К истории древнерусского города Серенска) [On the history of the ancient Russian city of Serensk]. *Kratkie soobshcheniya Instituta arkheologii* (КСИА) 113 (1967) 108–116.
- Nikol'skaya, T. N. (Никольская, Т. Н.) (1981). *Zemlya vyatichey. K istorii naseleniya verkhney i sredney Oki v IX–XIII vv.* (Земля вятичей. К истории населения верхней и средней Оки в IX–XIII вв.) [Land of the Vyatichi. On the history of the population of the upper and middle Oka in the 9th–13th centuries.] Moscow: Nauka.
- Nikol'skaya, T. N. (Никольская, Т. Н.) (1986). Novye dannye k istorii Serenska (Новые данные к истории Серенска) [New data on the history of Serensk]. *Kratkie soobshcheniya Instituta arkheologii* (КСИА) 187 (1986) 41–51.
- Nikol'skaya, T. N. (Никольская, Т. Н.) (1987). *Gorodishche Slobodka XII–XIII vv.* (Городище Слободка XII–XIII вв.) [The settlement of Slobodka, 12th–13th centuries]. Moscow: Nauka.
- Olczak, H., Krasnodebski, D., Bieńkowska, K., Gładykowska-Rzeczycka, J. J., Bisiecka, A. & Wajda, S. (2024). *Suraz, stan. 2 – średniowieczna nekropola na pograniczu polsko-rusko-jaćwieskim Suraz, Site 2 – Medieval Burial Ground in the Mazovian-Ruthenian-Yotvingian Borderland.* Warszawa.
- Orlov, R. S. & Pohoriliy, V. I. (Орлов, Р. С. & Погорілий, В. І.) (1977). Pokhovannya kochivnyka poblyzu s. Podillya na Kyuyvshchyni (Поховання кочівника поблизу с. Поділля на Київщині) [Nomad burials near the village of Podillia in the Kyiv region]. *Arkheolohiya* (Археологія) 24-4 (1977) 87–89.
- Oța, S. (2013). New Contributions on the Earrings Decorated with Curled Wire. In: I. V. Ferencz, N. C. Rîșcuța & O. T. Bărbat (eds.), *Archaeological Small Finds and Their Significance*, pp. 159–173. Cluj-Napoca: Editura Mega.
- Perlikowska-Puszkarska, U. (2017). Średniowieczne cmentarzysko w Czarnej Wielkiej, stanowisko 1, gm. Grodzisk, pow. siemiatycki, woj. Podlaskie (badania 1995 r.) [Medieval cemetery in Czarna Wielka, site no. 1, Grodzisk commune, Siemiatycze district, Podlaskie Voivodeship (research in 1995)]. *Podlaskie Zeszyty Archeologiczne* 13 (2017) 141–169.
- Prikhodnyuk, O. M. (Приходнюк, О. М.) (1980). Horodyshcha Khalep'ye i Hryhorivka na Seredn'omu Dnipri (Городища Халеп'є і Григорівка на Середньому Дніпрі) [The settlements of Halepye and Hryhorivka on the Middle Dnieper]. *Arkheolohiya* (Археологія) 33 (1980) 87–96.

Pronin, G. N. (Пронин, Г. Н.) (1986). Raskopki kurganno-zhal'nichnogo mogil'nika u d. Novinka (Раскопки курганно-жальничного могильника у д. Новинка) [Excavations of a burial mound near the village of Novinka]. *Kratkie soobshcheniya Instituta arkheologii* (КСИА) 183 (1986) 83–91.

Pushkina, T. A. (Пушкина, Т. А.) (1996). Novyy Gnyozdovskiy klad. Drevneyshie gosudarstva Vostochnoy Yevropy 1994 (Новый Гнёздовский клад. Древнейшие государства Восточной Европы 1994) [The New Gnezdovsky Hoard. The Earliest States of Eastern Europe, 1994]. *Novoje v numizmatyike* (Новое в нумизматике) 1996, 171–186.

Pusztai, T. (2011). Könnyűlovas harcos sírja a muhi csatából. Grab eines leichten Reiterkriegers aus der Schlacht von Muhi. *Móra Ferenc Múzeum Évkönyve Studia Archaeologica* 12 (2011) 629–640.

Reabţeva, S. S. & Telnov, N. P. (Рябцева, С. С. & Тельнов, Н. П.) (2010). Alchedarskiy klad i tsentry yuvelirnogo proizvodstva Vostochnoy Yevropy kontsa IX – nachala XI vv. (Алчедарский клад и центры ювелирного производства Восточной Европы конца IX – начала XI вв.) [The Alchedar hoard and the centres of jewelry production in Eastern Europe in the late 9th – early 11th centuries]. *Stratum plus* 5 (2010) 285–300.

Savchenkova, L. L. (Савченкова, Л. Л.) (1996). Chernyy metall Bolgara. Tipologiya (Черный металл Болгара. Типология) [Black metal from Bolgara. A typology]. In: G. A. Fedorov-Davidov (ed.), *Gorod Bolgar: remeslo metallurgov, kuznetsov, liteyshchikov* (Город Болгар: ремесло металлургов, кузнецов, литейщиков) [The city of Bolgar: the craft of metallurgists, blacksmiths, and foundrymen], pp. 5–88. Kazan.

Shtihov, G. V. (Штыхов, Г. В.) (1975). *Drevniy Polotsk (IX–XIII vv.)* (Древний Полоцк (IX–XIII вв.)) [Ancient Polotsk (9th–13th century)]. Publisher of the Soviet Academy of Sciences.

Shtihov, G. V. (Штыхов, Г. В.) (1978). *Goroda Polotskoy zemli (IX–XIII vv.)* (Города Полоцкой земли (IX–XIII вв.)) [The towns of Polotsk (9th–13th century)]. Minsk: Nauka i tehnika.

Széll, M. (1941). XI. századi temetők Szentes környékén [11th-century cemeteries around Szentes]. *Folia Archaeologica* 3–4 (1941) 231–255.

Szőke, B. (1953). Le cimetière du XIe siècle de Képuszta II. Le cimetiere de Képuszta (XIe siècle). Résultats archéologiques des fouilles. *Acta Archaeologica Academiae Scientiarum Hungaricae* 3 (1953) 281–301.

Tentiuc, I. (2020). On the Viking enclaves and their relations with the inhabitants of the Carpathian-Dniester region between the 9th and the 11th centuries. *Dacia* LXII–LXIII (2020) 249–286.

Tóth, B. (2021). Tűzcsíholók a váci Tragor Ignác Múzeum régészeti gyűjteményéből. Fire Strikers from the Archaeological Collection of the Ignác Tragor Museum, Vác. *Studia Comitatus* 39 (2021) 89–109.

Ursu, I. (2022). *Populațiile turanice din spațiul est-carpatic în secolele X–XIV* [Turanian populations in the East Carpathian region in the 10th–14th centuries]. *Istории și Documente Necunoscute – IDN, Monografii* M 47, Chișinău.

Yevglevsky, A. V. & Potemkina, T. M. (Евглевский, А. В. – Потемкина, Т. М.) (2000). Kresala v pozdnekochevniche skikh pogrebeniyakh Vostochnoy Yevropy (Кресала в позднекочевнических захоронениях Восточной Европы) [Fire strikers in late nomadic burials of Eastern Europe]. In: *Stepi Yevropy v epokhu srednevekov'ya* (Степи Европы в эпоху средневековья), pp. 181–208. Donetsk.

Voronin, N. N. (Воронин, Н.Н.) (1949). Raskopki v Yaroslavle. Materialy i issledovaniya po arkheologii drevnerusskikh gorodov (Раскопки в Ярославле. Материалы и исследования по археологии древнерусских городов) [Excavations in Yaroslavl. Materials and research on the archaeology of ancient Russian cities]. Vol 1. *Materialy i issledovaniya po arkheologii* (МИА) 11 (1949) 177–193.

Wadyl, S. (2019). *Cieple. Elitarna nekropola wczesnośredniowieczna na Pomorzu Wschodnim* [Cieple. An elite early medieval necropolis in Eastern Pomerania]. Gdańsk.

Zalotay, E. (1957). Gellértegyházai Árpád-kori temető [The Árpád-period cemetery of Gellértegyháza]. *Régészeti Füzetek* Ser. I. 7.