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ABBREVIATIONS

AAC	Acta Archaeologica Carpathica (Kraków)
ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae (Budapest)
ActaMusPapensis	Acta Musei Papensis. A Pápai Múzeum Értesítője (Pápa)
Acta Botanica Hungarica	Acta Botanica Hungarica. A quarterly of the Hungarian Academy of Sciences (Budapest)
Aetas	Aetas. Történettudományi Folyóirat (Szeged)
Agria	Agria. Az Egri Múzeum Évkönyve (Eger)
AgrSz	Agrártörténeti Szemle (Budapest)
AKorr	Archäologisches Korrespondenzblatt (Mainz)
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Az István Király Múzeum Évkönyve (Székesfehérvár)
Antaeus	Antaeus. Communicationes ex Instituto Archaeologico (Budapest)
AÖ	Archäologie Österreichs (Wien)
AR	Archeologické Rozhledy (Praha)
ArchA	Archaeologia Austriaca (Wien)
Archaeometry	Archaeometry (London)
Archeometriai Műhely	Archeometriai Műhely. Elektronikus Folyóirat (Budapest)
ArchÉrt	Archaeologiai Értesítő (Budapest)
ArchHung	Archaeologia Hungarica (Budapest)
Arrabona	Arrabona. A Győri Xantus János Múzeum Évkönyve (Győr)
AV	Arheološki Vestnik (Ljubljana)
BAR-IS	British Archaeological Reports – International Series (Supplementary) (Oxford)
BudRég	Budapest Régiségei (Budapest)
Burgen und Schlösser	Burgen und Schlösser. Zeitschrift für Burgenforschung und Denkmalpflege (Heidelberg)
Cahiers LandArc	Les Cahiers LandArc (Fleurance)
Castrum	Castrum. A Castrum Bene Egyesület Hírlevele (Budapest)
CommArchHung	Communicationes Archaeologicae Hungariae (Budapest)
Cumania	Cumania. Bács-Kiskun Megyei Múzeumok Közleményei. Acta Museorum ex Comitatu Bács-Kiskun (Kecskemét)
Demográfia	Demográfia. Népeségtudományi Folyóirat (Budapest)
DissPann	Dissertationes Pannonicae (Budapest)
DuDolg	Dunántúli Dolgozatok (Pécs)

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Érem	Az Érem (Budapest)
ÉT	Élet és Tudomány (Budapest)
Ethnographia	Ethnographia. A Magyar Néprajzi Társaság Folyóirata (Budapest)
FMTÉ	Fejér Megyei Történeti Évkönyv (Székesfehérvár)
FolArch	Folia Archaeologica (Budapest)
FontArchHung	Fontes Archaeologici Hungariae (Budapest)
FÖ	Fundberichte aus Österreich (Wien)
Föld és Ember	Föld és Ember. Negyedévenként Megjelenő Tudományos Szemle (Budapest)
FrK	Földrajzi Közlemények (Budapest)
Geomorphology	Journal of Geomorphology (New York)
Gesta	Gesta. Historical Review (Miskolc)
Gymnasium	Gymnasium. Zeitschrift für Kultur der Antike und humanistische Bildung (Heidelberg)
GySz	Győri Szemle (Győr)
Határtalan Régészet	Határtalan régészet. Archeológiai Magazin. A Móra Ferenc Múzeum Régészeti Magazinja. Régészeti Ismeretterjesztő Magazin (Szeged)
HungArch	Hungarian Archaeology. E-Journal (Budapest)
Hungarian Studies	Hungarian Studies. A Journal of the International Association for Hungarian Studies and Balassi Institute (Budapest)
Jahrbuch des RGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz (Mainz)
JAMÉ	A Nyíregyházi Jósza András Múzeum Évkönyve (Nyíregyháza)
JAS	Journal of Archaeological Science (London)
JCAA	The Journal of Computer Applications in Archaeology
KDMK	Kuny Domokos Múzeum Közleményei (Tata)
KMMK	Komárom-Esztergom Megyei Múzeumok Közleményei (Tata)
Korall	Korall. Társadalomtörténeti Folyóirat (Budapest)
KRMK	A Kaposvári Rippl-Rónai Múzeum Közleményei (Kaposvár)
LDMK	A Laczkó Dezső Múzeum Közleményei (Veszprém)
MatArchSlov	Materialia Archaeologica Slovaca (Nitra)
MFME StudArch	A Móra Ferenc Múzeum Évkönyve – Studia Archaeologica (Szeged)
MHKÁS	Magyarország honfoglalás kori és kora Árpád-kori sírleletei (Budapest)
MittArchInst	Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften (Budapest)
MNy	Magyar Nyelv (Budapest)
Múzeumcafé	Múzeumcafé. A Múzeumok Magazinja (Budapest)

Múzeumi Hírlevél	Múzeumi Hírlevél. A Kalocsai Múzeumbarátok Köre Kiadványa (Kalocsa)
MRT	Magyarország Régészeti Topográfiája (Budapest)
Ókor	Ókor. Folyóirat az Antik Kultúrákról (Budapest)
Ősrégészeti Levelek	Ősrégészeti Levelek. Prehistoric Newsletter (Budapest)
PA	Památky Archeologické (Praha)
PBF	Prähistorische Bronzefunde (München)
PNAS	Proceedings of the National Academy of Sciences (Washington, D. C.)
Quaternary Int	Quaternary International. The Journal of the International Union for Quaternary Research (Oxford – New York)
RégFüz	Régészeti Füzetek (Budapest)
Remote Sens	Remote Sensing (Tulsa)
Savaria	Savaria. A Vas Megyei Múzeumok Értesítője (Szombathely)
SbNM	Sbornik Národního Muzea v Praze Ser. A. (Praha)
SlA	Slovenská Archeológia (Bratislava)
SMK	Somogyi Múzeumok Közleményei (Kaposvár)
SSz	Soproni Szemle (Sopron)
Studia Hercynia	Studia Hercynia. Journal of the Institute of Classical Archaeology (Praha)
ŠtZ	Študijné Zvesti Arheologického Ústavu Slovenskej Akadémie Vied (Nitra)
Századok	Századok. A Magyar Történelmi Társulat Közlönye (Budapest)
Turul	Turul. A Magyar Heraldikai és Genealogiai Társaság Közlönye (Budapest)
UPA	Universitätsforschungen zur prähistorischen Archäologie (Bonn)
VAH	Varia Archaeologica Hungarica (Budapest)
VMMK	A Veszprém Megyei Múzeumok Közleményei (Veszprém)
WMMÉ	A Wosinsky Mór Múzeum Évkönyve (Szekszárd)
ZalaiMúz	Zalai Múzeum (Zalaegerszeg)
ZbSNM	Zborník Slovenského Národného Muzea. Archeológia (Bratislava)
ZfAM	Zeitschrift für Archäologie des Mittelalters (Köln)

PÉTER LANGÓ – MIKLÓS TAKÁCS

ON BOTH SIDES OF THE BORDER: DEFENSE AND COOPERATION
ARCHAEOLOGICAL RESEARCH
OF THE ÁRPÁD AGE BORDERS OF THE KINGDOM OF HUNGARY¹

Zusammenfassung: Es ist offenkundig, dass Grenzen in Mitteleuropa (selbst im Mittelalter) verschiedene und teilweise widersprüchliche Rollen spielten. Eine davon – und die auf den ersten Blick vielleicht offensichtlichste – war die strategisch-militärische Rolle. Mittelalterliche Herrscher strebten in der Regel nicht nach einem friedlichen Miteinander mit ihren Nachbarn, sondern danach, das Territorium ihrer Länder zu vergrößern. Diese Einstellung war zu jener Zeit weit verbreitet, teilweise auch deshalb, weil sie durch die Notwendigkeit angeheizt wurde, die militärischen Gefolgschaften um ihre Herrscher kontinuierlich zu versorgen.

Im Gegensatz zur militärischen Rolle gibt es jedoch bereits im Frühmittelalter Hinweise auf grenzüberschreitende Beziehungen, insbesondere im Fernhandel. Schriftliche Quellen und archäologische Artefakte legen nahe, dass die Grenzen des mittelalterlichen Königreichs Ungarns der Árpádenzeit nicht nur die Landschaft teilten, sondern auch wichtige geographische Regionen miteinander verbanden. Die vorliegende Studie präsentiert eine Analyse beider Aspekte der Grenze des ungarischen Königreichs der Árpádenzeit (11.–13. Jahrhundert).

Keywords: archaeological analysis of borders, western parts of the Carpathian Basin, Kingdom of Hungary in the Árpád Age

It is trivial that (even in the Middle Ages) borders in Central Europe had several partially contradicting roles. One of these – and perhaps the most obvious at first sight – was the strategic military role. The strategic importance is easy to comprehend. Medieval rulers usually did not strive for a peaceful coexistence with their neighbours but rather to increase the territory of their countries. Needless to say, they could only do that at the expense of said neighbours. This attitude was common in the era, partially because it was also stimulated by the necessity of providing the military entourage around the rulers (with the German term: *Gefolgschaft*)² with a continuous supply. Neighbouring states understood exactly these aspirations and usually made efforts to prevent them. The most important means of defence was to increase, or at least maintain, the strength of their military power. Simultaneously, protecting the borders also played an important role in defence by minimising the possibility of sudden attacks. As opposed to the military role, there is evidence of cross-border relations (especially long-distance trade) already in the Early Middle Ages. Written sources and archaeological artefacts suggest that the borders of the medieval Kingdom of Hungary in the Árpád Age not only divided the landscape but also represented important geographical regions of connecting.

¹ The present study was written within the frame of the NKFI project (ID 132030) ‘*Life on the Frontier. Early Árpádan Age Settlements of the Moson Plain, way of life in the light of environmental conditions*’.

² About this term, see *Olberg 1988* lines 1171–1172.

The study presents an analysis of both aspects of the border of the Kingdom of Hungary in the Árpád Age (11th–13th centuries). First, some archaeological finds are discussed that can be connected with border protection, together with a description of the topographic characteristics of the respective archaeological sites on a regional level. The second part contains an analysis of the connections of a single find, illustrating that one may reveal long-distance connections via micro-level analyses.

Changes in the concept of border in historiography and archaeology

Since the Middle Ages, the idea of boundaries has evolved according to diverse viewpoints and ideologies but never free from political and ideological constructs – enough to think about the original *topos* concept related to natural borders,³ widely employed in Antiquity, and the comments made by ancient writers on the guardian role of kings as ‘everlasting defenders’ (*aeternus defensor*) entrusted with preserving the borders.⁴ Geopolitical borders were seen as crucial components of political and power representation, but politics could not be excluded from the study of many other types of borders, including geographical, linguistic, religious, cultural, and social.⁵ From the outset of nationalist movements, the size of a nation’s territory and the position of its borders became key issues. The use and analysis of the idea of historical space in contemporary historical research have fundamentally altered the hitherto widely accepted and uncomplicated image of the historical boundaries of a specific geopolitical unit. Meanwhile, social sciences, including archaeology, have developed scientific perspectives in the research of borders.⁶

When delineating the borders of the early Árpáadian Principality and later the Kingdom of Hungary under the Árpád dynasty, it is worth considering that historical records indicate that Hungarians occupied the central parts of the Carpathian Basin in several stages, which resulted in dynamic changes in the ‘borderline’ during this period.⁷ Initially, Hungarian tribes only occupied the lands east of the left bank of the Danube.⁸ Later, unlike the Franks or the Roman Empire before them, but similarly to the Avars, they crossed the natural boundary the river represented, expanding their dwelling area to lands west of the Danube, including Transdanubia. Hungarians occupied lands on both sides of the river, and for a significant part of the 10th century, their rule extended to the western zone of the Danube Basin, beyond the Carpathian Basin.

However, István Dienes and István Bóna’s results reminded academics that it is not always possible to properly define the limits of the early Hungarian Principality based only on archaeological evidence.⁹ Challenges may emerge from methodological issues when assessing the archaeological record, the difficulty of comparing modern and coeval written sources,¹⁰ and last but not least, from the fact that different medieval political entities had different conceptions of borders, which cannot be precisely equated with the concept of state borders developed in

³ Hornstein 1957.

⁴ Whittaker 1994; Whittaker 2004.

⁵ Urciuoli 1995.

⁶ Green – Perlman 1985; Lightfoot – Martinez 1995.

⁷ Bóna 2000 33–35. Recently, Béla Miklós Szőke re-examined the chronology of the settling of the Hungarian tribes, reconstructing it as a process that started in the mid-9th century and lasted for decades; see Szőke 2004 108–110.

⁸ Szőke 1994 168–194; Szőke 2004. For the eastern borders of the Carolingian Empire, see Vékony 1986; Wolfram 2002.

⁹ Dienes 1972 25–26; Bóna 1986 576.

¹⁰ Several Hungarian studies have recently focused on these methodological issues; see Révész 2007; Takács 2007b; Horváth 2014 339–342.

later periods.¹¹ It is important to remember that the limits in this region were not like those of the former Roman Empire, i.e., clear to define based on written and archaeological evidence. By Late Antiquity, the previous Roman *limes* had already changed. Still, the peoples who replaced the Romans in the Early Middle Ages were not thinking in formations resembling those of the earlier period.¹² Owing to their likely steppe-oriented perspective on the subject,¹³ 10th-century Hungarians most likely had their own idea of the local Central European border concept. Prominent Hungarian academics György Györffy and Gyula Kristó drew attention to this conceptual and institutional gap when they noted that, at that time, the Hungarian sphere of influence and the actual settlement area did not completely match.¹⁴ Artefacts found in the Carpathian Basin attest to the spread of clothing accessories from the Eastern Alpine region in the 10th century. The record of the period also includes imports from the Balkans and Byzantine territories in the south, reflecting a notion of borders as a broader region separating and connecting the inhabitants on both sides.¹⁵ The coeval record on the other side of the border zone holds several items from the ‘inner’ neighbouring region, suggesting the transit of different items and the moving of communities.¹⁶ In certain cases, the movement was not influenced by factors like pagans living on the other side of the boundary (such as Hungarians in the 10th and 11th centuries, whom the subjects of the Carolingian Empire perceived as adversaries to be defended against). Saint Coloman, who was mistaken for a Hungarian spy and hanged in Stockerau, Austria, in 1012 while on a journey to the Holy Land, is one of the most well-known victims of mistrust against Hungarians. Western chroniclers described the boundary as a dividing barrier, where the earliest stages of civilisation were found on the western side and the feared savage world beyond. Strangely enough, Hungarians perhaps had a similar notion of themselves and the lands on the other side of the border.¹⁷ The border stood for an uncharted, far-off region that the locals still remembered as being beyond the ‘*Óperencia*’ (the Hungarian word ‘*Óperencia*’ stems from the German expression ‘*ob der Enns*’ [through the Enns, a small river in Bavaria] and denotes the wondrous faraway lands of folk tales full of weirdness, dangers, and adventures). But even when examining near-contemporary written sources, it is crucial to emphasise the necessity for a critical mindset because the surviving memoirs frequently use antiquated clichés, making the accurate reconstruction of the boundary more difficult. Determining borders can also be complicated by ‘when’, particularly in the centuries of the Árpád Age and especially in the turbulent 10th century when political and military power changes led to multiple revisions of the position and extent of

¹¹ Reimitz 2000 106–108; Wolfram 2001; Hardt 2001; Hardt 2008. For the differences between the modern and contemporary concepts, see Pohl 2000 17; Török 2009 XV, 7–8; Berend 2001 6–17.

¹² Curta 2005.

¹³ For the notion of steppe state formations, see Vásáry 1983.

¹⁴ Györffy 2000 49–53; Kristó 1996 245; Kristó 2002 254–255. This idea is acknowledged and actively employed by Hungarian historical and archaeological research; see Veszprémy 2002 100; Takács 2013 647; Horváth 2014 342.

¹⁵ Jaspert 2007 62–65. For the archaeological aspect of the question, see Giesler 1980; Giesler 1997. People living on the frontier were subjects of sometimes more hostile than friendly rules, and they did not see people on the other side simply as rivals. Viewed from the centres, they could be more easily identified with people of similar social status living across the border (under similar circumstances) than with families of the same status but residing in the central territories of the homeland. Cross-border relations were generally more complex than mere opposition; despite the political rivalry and tension between states, people living on the two sides of a border frequently formed marriage and familial bonds. See Falkenhausen 1984; Matuz 1990 27–28; Sivan 1996; Sirks 1996; Curta 2005.

¹⁶ Horváth 2014 340.

¹⁷ The separating effect of different perceptions on the sides of the border has been studied extensively in North America and illustrated by the related literature on frontiers and borders; see, e.g., Billington 1966 69–95 with vivid examples.

the frontiers.¹⁸ Gábor Vékony noted that the Hungarian border defence system of the Árpád Age was one tailored to a settled population rather than the migrating nomadic communities of the earlier period.¹⁹ This remark seems valid, given the numerous adjustments made to the political border by the end of the 10th century. It is not easy to imagine that Hungarians built static defence structures that may obstruct a dynamic modification of the border (a favoured thing at the time) and the exploitation of the tactical agility inherent in cavalry warfare, especially as the constant changes in diverse sections of the border were the results of military confrontations. Later, István Bóna returned to this question with an analysis of historical sources, confirming the belief widely held in Hungarian academia that the lands of Hungarians stretched all the way to the river Enns (the *Óperencia* of Hungarian folklore) in the West after their victory in 907.²⁰ However, some philological analyses suggest that the Fulda Annals' reference to the Enns as a border river may have been a literary tool intended to evoke memories of the Avar border zone (*certus limes*), which spread across the river a century before, during the reign of Charlemagne.²¹ The question of whether a no man's land along the western border, as suggested by Austrian research, existed in the Early Árpád Age emerges from these facts. Was there such a zone along the western frontier in the Early Árpád Age?²²

*The military aspect of the protection of the western borders of the Kingdom of Hungary
in the Árpád Age from an archaeological point of view*

First, a characteristic of the terminological background of the concept of borders must be highlighted. Sources written in Latin in the Árpád Age use the words *confinium* and *marchia* to refer to borders,²³ akin to the terminology applied in coeval Western European Latin texts. In a self-revealing way, both terms do not mean the borderline itself but relate to the administration of the border zone. A detailed description of the different analyses of the works of various authors seems unnecessary here, as the results are often convergent or at least the historical reconstructions often follow the same path (despite border-related defence systems being organised in various ways, as presented in the previous chapter). It is enough to draw attention to the approach reflected by Árpád Age written sources, where the border is seen as a zone.²⁴

Border protection in the various kingdoms of medieval Europe meant fulfilling many, often seemingly unconnected, tasks. While coeval written sources are scarce, later data and circumstances can also be included in the analysis, and conclusions about these tasks can be drawn with high certainty.²⁵ As the tasks generally related to border protection were different in times of peace and war, especially when the enemy started a military campaign, they are presented in the following classified based on his aspect.

Tasks connected with the protection of borders in peacetime:

- Being continuously ready for physically protecting the border area.
- Supervising border traffic and collecting toll from incoming and outgoing traders.
- Controlling or at least supervising all other kinds of cross-border connections.
- Collecting information about the conditions and events on the other side of the border.

¹⁸ Bóna 2000 25–28, 33–37, 70–71, 76–82.

¹⁹ Vékony 1983.

²⁰ Bóna 2000 36.

²¹ Reimitz 2000 15; Reimitz 2001 192; Horváth 2014 340; Vékony 1983 225.

²² Brundke et al. 2017.

²³ See, e.g., Zsoldos 2016 48–63.

²⁴ Zsoldos 2016 48–63.

²⁵ Vékony 1983 reflects a similar approach.

Tasks in wartime, especially during enemy campaigns:

- Eliminating, or at least intercepting, relatively small enemy troops that invade the border.
- Slowing down the movement of large enemy troops, hindering their march and the development of the attack.
- Disrupting the communication of the invading enemy and hindering supply (if the main army has already entered the border zone).

In analysing the borders of the kingdoms of medieval Europe, historians worldwide usually recognise the importance of these factors. As a detailed review of the related extensive literature is beyond the scope of this study, we only refer here to a few, in our opinion, most important works. A detailed description of the analyses of various authors also seems unnecessary (some are already referred to above); only the outcome is to be summarised again briefly.

The geographical environment and the power of the neighbouring state fundamentally influenced the protection of the border. With an eye to these, research on medieval borders often approaches the topic as one of areas rather than lines, especially when environmental conditions are moderately favourable for border defence or the opponents are strong.

These aspects taken into account in the research on the borders of the Kingdom of Hungary in the Árpád Age point towards differences in the protection of distinct border sections. Research into the border protection of the era based on written sources and linguistic data²⁶ has pointed out the presence of two strong opponents, the Byzantine Empire in the Southeast and the Holy Roman Empire in the West,²⁷ which triggered the development of organised border defence on the southern, southwestern, western, and northwestern frontiers of the Kingdom of Hungary in the Árpád Age. In contrast, border protection relied mainly on natural geography in the northern, north-eastern and eastern frontiers. As for the eastern section, the importance of border protection increased significantly in the 11th–13th centuries because the Carpathian Basin was next to the eastern European steppe, dominated by tribal confederations of nomads at the time, and open to the even if not continuous but repeated raids of their armed groups (see, e.g., the nomadic invasion of 1068 that concluded with the Battle of Kerlés²⁸ and the Mongol invasion of 1241–1242 that devastated the whole country).²⁹

For an archaeological approach to the topic of border protection, the basic question is whether there are any archaeological traces to be connected with the organisation of border control, and if yes, what are these? An archaeological investigation of border control must start with identifying the border zone and defining, as precisely as possible, the areas that can be classified as border regions. When examining the borders of the Kingdom of Hungary in the Árpád Age, great attention must be paid to the watercourses in plainlands and the mountains. These natural obstacles had a determining role in every border zone. The situation was most peculiar in the western frontier, where the Danube, the largest river of the frontier zone, has flown through it from west to east; thus, it could not be the border, and there is no other natural formation either that could serve as a natural division. Accordingly, it is much easier to define the coeval frontiers of the Kingdom of Hungary in the south, east and north: the lower reaches of the Sava River represented a natural border in the south and southwest, as well as the Danube after its confluence, while the Carpathian Mountains in the east and north.³⁰

²⁶ See, e.g., *Zsoldos 2016* 48–63.

²⁷ *Makk 1996*; *Engel 2005* 27–37, 49–54.

²⁸ *Pálóczi Horváth 1989* 121.

²⁹ *Engel 2005* 98–102.

³⁰ *Engel 2005* XIII–XV.

When researching the western borders of the Kingdom of Hungary in the Árpád Age, one has to keep in mind not only the lack of natural (geographical) barriers but also the timeline, which, in this case, is unique. Due to steps taken by the emerging Holy Roman Empire already from the 10th century, the western border zone of the Kingdom of Hungary continuously narrowed.³¹ According to current hypotheses, the border river at the turn of the 10th and 11th centuries was either the Fischa or the Lajta/Leitha; Hungarian and Austrian reconstructions differ there,³² but the difference is not essential, as it concerns a zone not broader than 50 km. During the reign of King (Saint) Stephen I, the founder of the state of Hungary (1000–1038), the border within this zone did not change. However, during the short reign of King Sámuel Aba (1041–1044), offensive steps were taken as the Hungarian army expanded the western frontier up to the Fischa River³³ but could not hold the newly occupied lands against the German campaigns that eventually led to the debacle of Sámuel Aba. After several more wars between the Holy Roman Empire and the Kingdom of Hungary, the border between the two states stabilised along the Lajta/Leitha River for centuries.³⁴

Research into the protection of the western borders of the Kingdom of Hungary in the Árpád Age is not except to the comprehensive problems of research into the whole period: small number of written sources and the fact that archaeological sites can only be dated roughly. Unfortunately, these problems limit interpretation possibilities considerably. Researchers delving into the era are commonly trying to overcome this major obstacle by formulating general hypotheses and adding details that fit both from geographical and chronological points of view. The general lack of sources confines us to doing the same at some points, even if we are aware of the danger implied in projecting general or perceived tendencies on particular phenomena. Besides, we must deal with chronological difficulties concerning not only and perhaps not primarily the dating and interpretation of settlements but, to the same extent, partially or fully excavated cemeteries – enough to mention the controversial dating(s) of the Gnadendorf grave, which a scholar assigned to the very beginning of the Hungarian Conquest,³⁵ another to the very end,³⁶ while yet another to the first third of the 10th century, i.e., the first period (but not the very beginning) of the Hungarian Conquest.³⁷

Despite the uncertainties in the dating of particular graves, a general trend can be outlined based on the first sites in the border zones in the century after the Hungarian Conquest. These ‘farmstead cemeteries’, with a term by László Kovács,³⁸ consist of a few graves; such have been discovered in the western border zone at Páli,³⁹ Szakony,⁴⁰ Veszvény,⁴¹ Öttevény,⁴² and north of the Danube (in today’s Slovakia) at Tardoskedd/Tvrdošovce⁴³ and Vágsellye/Šal’a.⁴⁴ Of these, Szakony is perhaps the most important as it could be dated reliably to the first half of the 10th century.⁴⁵ These small cemeteries can rightly be considered the legacy of small, mobile

³¹ *Csendes 1991* 95–103.

³² *Kring 1938* 475–486; *Csendes 2001* 64–65.

³³ *Csendes 2001* 65.

³⁴ *Csendes 2001* 65.

³⁵ *Révész 2007* 141–144.

³⁶ *Daim 2007b* 282.

³⁷ *Takács 2007a* 219–223.

³⁸ *Kovács 2013* 512, 513, 514, and especially 520.

³⁹ *Horváth 2022* 49–62.

⁴⁰ *Horváth 2022* 73–141.

⁴¹ *Horváth 2022* 143–150.

⁴² *Horváth 2014* 183, 301–302.

⁴³ *Točík 1971* 209–214.

⁴⁴ *Točík 1992* 18–132.

⁴⁵ *Horváth 2022* 137–141, dating the cemetery to the early 10th century AD.

communities that supervised the border zone. From the second half of the 10th century, larger cemeteries – ‘village cemeteries’, as László Kovács refers to them⁴⁶ – appeared in the western border area, including, e.g., Ikervár,⁴⁷ Sorokpolány,⁴⁸ Himód,⁴⁹ Lébény-Kaszás-domb,⁵⁰ and Bruck an der Leitha (Austria).⁵¹ Their emergence presumably indicates that settling down also started in the border zone in the second half of the 10th century.

The topographical position of these cemeteries is telling. The vast majority of 10th-century farmstead cemeteries⁵² were established in the western part of the actual border zone. In this light, the Gnadendorf grave is exceptional, regardless of its chronological position.⁵³ Moreover, a lonely 10th-century grave was found in Lanzenkirchen (Austria) near the Danube, the most important transport route; the feature became well-known only decades after its discovery through Falko Daim’s museum data collecting work.⁵⁴ The unique character of the border at the western edge of the Carpathian Basin may be illustrated by an early medieval grave discovered during the excavations of the Stephansdom in Vienna.⁵⁵ The cause of death of the buried man became completely obvious upon excavating the grave: by an arrow, the head of which was found in the neck area. As the arrowhead was a diamond-shaped type preferred by Hungarian horsemen of the 10th century, one may be right to assume that the deceased was a victim of a Hungarian raid. The question is, of course, how broad conclusions may be drawn from this single find; according to the latest results of research, such hammered arrowheads were used not only by the Hungarians but also in the area of today’s Czech Republic and Saxony in the 10th century and perhaps even later. But, considering all arguments impartially, with common sense and taking into account the proximity of Vienna and the Hungarian western border zone, one can say that the grave from the Stephansdom probably really sheds some light on the disturbance caused by Hungarian border protection, regardless of the ethnicity of the deceased and the time of his death⁵⁶ – which would be impossible to deduce from only the burial rite and the arrowhead.

As for the village cemeteries⁵⁷ in the western part of the Carpathian Basin, it is important to emphasise that most of these were started in the second half of the 10th century and remained in use until the end of the 11th century. This timeline, including the time of the founding of the Hungarian state, reveals a lot about life in the border zone in the 10th and 11th centuries, indicating that the stabilisation of the settlement structure started there.

A glimpse at regional topography reveals that the spread and distribution of village cemeteries largely corresponds with the line of the first fortifications of the newly founded Hungarian

⁴⁶ Kovács 2013 514, 515, 516, and especially 520.

⁴⁷ Kiss 2000 41–118.

⁴⁸ Kiss 2000 146–238.

⁴⁹ Horváth 2022 9–47.

⁵⁰ Kovács 1995 1078–1079; Tomka 2000 66; Horváth 2012 191.

⁵¹ Kreitner 2000 182–199.

⁵² Kovács 2013 512, 513, 514, and especially 520.

⁵³ Based on available data, it is impossible to decide whether the Gnadendorf burial represents a phenomenon similar to what Hungarian research (see *Cat. Budapest 1996* 437–448) assumes in the case of a grave from Przemyśl (Poland), namely that it is the final resting place of either a border guard or someone who died in a military action. The latter hypothesis has analogies even outside the Carpathian Basin, e.g., at Aspres-lès-Corps (France), a site identified by Mechtilde Schulze-Dörrlamm (*Schulze 1984; Bede – Langó – Sarah 2017; Bede – Langó 2021*). Answering this question in the case of the Gnadendorf grave would require further excavation to improve our understanding of its context.

⁵⁴ Daim 2007a 269–272.

⁵⁵ Kühnreiber 2013 188, 219.

⁵⁶ Schulze-Dörrlamm 2021 439.

⁵⁷ Kovács 2013 514, 515, 516, and especially 520.

Kingdom, comprising, e.g., the so-called county forts of Pozsony/Bratislava (Slovakia),⁵⁸ Moson,⁵⁹ Sopron,⁶⁰ and Vasvár. According to the research of István Bóna, the construction of these fortifications started while the Kingdom of Hungary was still in formation.⁶¹ Without discussing István Bóna's related concept in detail, it must be pointed out that its chronological aspects seem suitable only for some forts on the western parts of the nascent kingdom. Drawing more definite conclusions, i.e. 'translating' the observed general trends onto specific sites, is prohibited by the lack of specific data in the case of most sites at the western frontier of the Árpád Age Kingdom of Hungary. In this respect, the newest evidence is ambiguous. While recent radiocarbon data of the Moson fort confirm the hypothesis that it was built relatively early, i.e., already in the first half of the 10th century, the dendrochronological investigations of the wooden structure of the castle of Pozsony/Bratislava (Slovakia) revealed that the earliest fort was erected only in the second third of the 11th century;⁶² however, as written sources (the description of the German campaign against Hungary in 1051 in the first place) describe, a county fort at the same place was of key importance a century earlier.⁶³ Thus, as far as this single data point can lead to more general conclusions, one can hypothesise that the construction of county forts in the western border region extended deep into the 11th century.

A comparison of the concept by István Bóna on the chronology of county forts and other results leads to the assumption that the construction of smaller fortifications in western Hungary could have started immediately after or, to put it more mildly, almost parallel with that of the county forts. These smaller fortifications did not function as county seats; they were more likely built to serve as supply centres and gathering points for the forces of defence of a particular border region section, as emerged from an analysis by Attila Zsoldos of the written sources on several forts at the western border of Hungary, including Darufalva/Drassburg (Austria), Kapuvár, and Babót.⁶⁴ The related archaeological material includes Early Árpád Age finds with the fragment of a ribbed neck vessel from the area of the Darufalva/Drassburg fort.⁶⁵ Two characteristics of the position of county fortresses and other, smaller forts are definitely worth highlighting: first, they were usually established at dominant points of a given micro-topographic environment; and second, they were not built directly next to the border, but near the inner end of the protected border zone (*gyepű* in Hungarian). This especially applies to the less important fortresses serving as regional centres, the position of which seemingly influenced the density of rural settlements in the area.

The location of the 'gate of Moson' that appears in a source from 1060⁶⁶ is a problem of its own kind. Some identify it as the western gate of the Moson fort,⁶⁷ while others believe it was a distinct location somewhere between the swamplands of the Hanság and the Moson Danube, the north-eastern branch of the river.⁶⁸

Considering all elements of border protection, one should not forget about a third one, particularly significant in relation to the western frontier the Kingdom of Hungary in the Árpád Age. Written sources, e.g., the records describing the German campaign of 1043 and 1044, indicate

⁵⁸ For a short but targeted analysis of this county fort, see *Bóna 1998* 34–35.

⁵⁹ *Bóna 1998* 34.

⁶⁰ *Bóna 1998* 34.

⁶¹ *Bóna 1998* 63–64.

⁶² *Henning – Ruttkay 2011* 284.

⁶³ *Engel 2005* 30.

⁶⁴ *Zsoldos 2016* 48–50.

⁶⁵ Described by M. Takács in the collection of the Burgenlisches Landesmuseum in Eisenstadt (Austria).

⁶⁶ King Andreas I was captured at the gates of Moson in 1060 (*'captus est enim portas Musun'*), *Györffy 1998* 167.

⁶⁷ *Györffy 1998* 167.

⁶⁸ *Kiss – Tóth 1999* 109, 111; *Takács 1999* 128.

that Hungarians erected many ‘natural obstacles’ near the western borders of their country, which the German army was only able to overcome in the second campaign, even then only by employing local guides who led them through.⁶⁹ Thus, they could only advance and eventually defeat the Hungarian king Sámuel Aba in the Battle of Ménfő in 1044.⁷⁰ A thorough field survey was conducted to identify the mentioned ‘natural obstacles’ related to border protection. Based on field surveys, Károly Takács concluded that the landscape was perhaps shaped by digging artificial canals at the eastern edge of the swampland of Hanság,⁷¹ to improve border defence. However, this must be viewed with some caution as the chronology of the formation of the related ditches could not be determined precisely.

After evaluating the topographical setting of the archaeological record connected with the protection of the western borders of the Kingdom of Hungary in the Árpád Age, there is still an aspect to be analysed. Did, and if yes, how did the proximity of the border affect the life of the rural communities settled in the border zone? To answer that, one must first determine whether it is even possible to specify where the border zone inside the country was. The line of fortified seats of the westernmost counties, discussed above, may be used in the future for determining the extension of the border zone towards the inner parts of the country;⁷² currently, the body of data available from researched Árpád Age rural settlements is insufficient to draw a decisive conclusion regarding the western and other border sections.⁷³ In summary, the ‘inner’ edge of the border zone could be identified in the western frontier as a line connecting the county forts of Pozsony/Bratislava, Moson, Sopron, and Vasvár. Even the available scarce archaeological record is enough to see that the density of (identified) Árpád Age rural settlements on the ‘inner’ side of this line corresponds to the average⁷⁴ in other parts of Transdanubia, especially in the Kisalföld (Little Plain), while on the outer side, at least in the Moson area, only the number of farmstead-like settlements seems quite large.⁷⁵ This distribution is perhaps a mark of the border zone (even if the number of excavated Árpád Age rural settlements in said region is too small to make definite statements).

*Other aspects of the character of the western border of Árpád Age Hungary.
Archaeological traits of cross-border relations*

In the previous chapter, the parts of Árpád Age material culture of Western Hungary were discussed which may be relevant for the research on the military aspects of border management in times of peace and war. These aspects could be visualised by an analysis of the scatter of specific site types: farmstead and village cemeteries, county forts, and ditches interpreted as results of landscaping activity carried out to improve the efficiency of border defence.

Single artefacts are regularly not connected with the military aspect of the border but with trade or other forms of cross-border connection instead. In the following, several examples of such connections are presented. Most of the presented artefacts are grave finds, but some settlement find types may also be interpreted as evidence of such contacts.

⁶⁹ For the related analysis with a map displaying the reconstructed paths, see *Robotka 2000* 374–401.

⁷⁰ *Engel 2005* 29.

⁷¹ *Takács 2000a* 27–61.

⁷² A result of the survey of the distribution of 10th–11th-century cemeteries in the southern Carpathian Basin. *Takács 2013* 650–654.

⁷³ For an overview of the current state of research on rural sites of the Árpád Age, see *Takács in print*.

⁷⁴ For a recent overview of the distribution of sites, see *Takács 2017* 5–12.

⁷⁵ *Takács 1998* 181–191; *Takács 2000b* 244–248.

A. Grave finds

1. Iron knives adorned with antler plates

During the 9th century, the Danube Valley produced unique artefacts such as iron knives adorned with antler plates (*fig. 1*). Their distinctive forms set them apart from the 10th-century fragments discovered in the Carpathian Basin⁷⁶ as the latter had no carved antler plates with dots, circles, or other patterns. These objects, along with the workshops that produced them, are scattered on the right bank of the Danube in the valleys of the Morava and Thaya rivers,⁷⁷ from the territory of today's Lower Austria through the Little Hungarian Plain and along the Danube to the Danube Bend.⁷⁸ Such knives, also discovered in other sites in Transdanubia, were a distinctive relic of the 9th-century Sopronkőhida community with Western links.⁷⁹ Maja Petrinec's research confirms the appearance of similar tools in the Adriatic Region.⁸⁰ In his previous examination of the specimens found in the Carpathian Basin, Béla Miklós Szőke highlighted that the pieces clearly originated from a 9th-century context and were typical additions to graves of females.⁸¹ Several researchers commented on this: Erik Szameit concluded, based on the evaluation of the Hainbuch cemetery (Austria), that such objects could have been present in Lower Austria in the second half of the 8th century.⁸² Maja Petrinec held a similar view, dating the emergence of the knife type to the end of the 8th century based on items from the Auhof-Perg cemetery in Upper Austria.⁸³ Blanka Kavánová's examination of similar antler knife handles in the Mikulčice region (Czech Republic), some from pre-Moravian contexts, corroborates this opinion.⁸⁴

However, as recent excavation reports have revealed, the type remained in use after the Hungarian tribes settled down and the Principality of Hungary was established. Thus, a variation of straight-backed knives⁸⁵ with antler⁸⁶ and/or bone handles⁸⁷ survived into the 10th and 11th centuries, though in lower quantities and usually in plain shapes. Such knives were found in the extensive 11th-century rural cemetery of Himód-Káposztás (*fig. 1*) and graves discovered in the graveyard of the early parish church⁸⁸ at Szombathely-St. Martin Church.⁸⁹ While the grave from Szombathely that contained the knife was dated definitely to the 9th century, there is still some disagreement about its chronological position⁹⁰ as Béla Miklós Szőke dated the assemblage to the

⁷⁶ Istvánovits 2003 328–330; Fehér 2014.

⁷⁷ Kavánová 1995 214.

⁷⁸ Szőke 1982.

⁷⁹ Török 1973 49–50.

⁸⁰ Petrinec 2009 298.

⁸¹ Szőke 1982 24–25; Müller 2004 14. This observation has also been confirmed by contemporary research; cf. Petrinec 2009 298. Grave 174 in Břeclav-Pohansko, of a male, is mentioned as an exception by Maja Petrinec (Petrinec 2009 298). According to the description by František Kalousek, it contained a knife with a wooden handle; Kalousek 1971 111, No. 3, 138.

⁸² Szameit 1990 109–112, 117. See Breibert 2005 410; Nowotny 2005 220.

⁸³ Petrinec 2009 298. See Szőke 1982 35.

⁸⁴ Kavánová 1995 215. For the periodisation of this, see Klanica 1995.

⁸⁵ Ahrens Type 2. 2, Ahrens 1983 57–59; Szőke 1982 23.

⁸⁶ According to the observation of Blanka Kavánová, these handles were made of antlers in Mikulčice; Kavánová 1995 214.

⁸⁷ Szőke 1982; *Cat. Brescia* 2001 473, No. 81e.

⁸⁸ Kiss 2005.

⁸⁹ Horváth 2022 42–47; Szőke 2010 35.

⁹⁰ The authors assigned the finding to Period A of the cemetery, dating to the 9th century (Kiss – Tóth 1993 185; Kiss 2000 252).

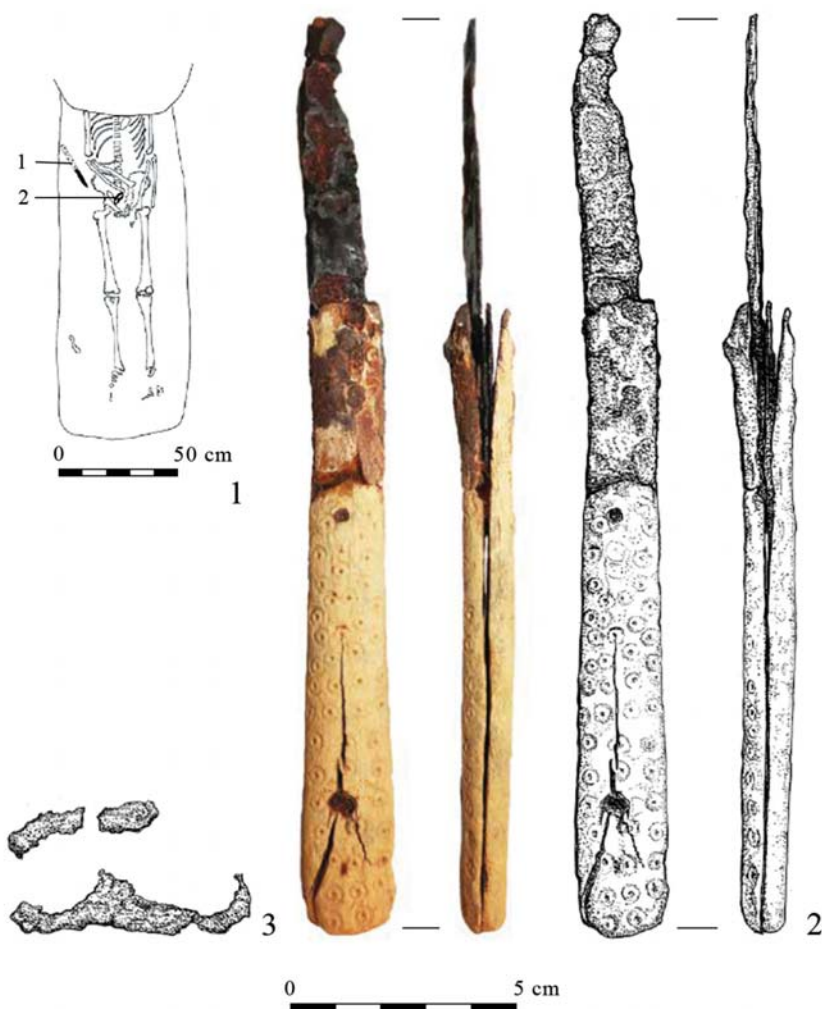


Fig. 1. Himód-Káposztás, Grave 68. Drawing and photo of the antler-handled knife from the grave (based on Horváth 2022) (©Péter Langó)

10th century, suggesting that such knives were still in fashion then.⁹¹ A similarity between this knife and the ones from Himód is that they were found in graves of men on both sites.⁹²

A study by Maja Petrinc verified that such knives were still used in the 10th century.⁹³ As Béla Miklós Szőke emphasised, additional proof came from Libice nad Cidlinou (Czech Republic); it was discovered in a location that used to be the Virgin Mary Church and most likely came from a grave.⁹⁴ Besides, he also dated some fragments from Grave 70, the grave of a female, of the 9th–11th century cemetery of Tornóc/Trnovec nad Váhom (Slovakia) as the remains of a 10th-century knife,⁹⁵ as the feature could be assigned to the 10th-century cemetery part based on both its relative position within the cemetery and the flat arrowhead it contained.⁹⁶ Yet another specimen, mentioned recently by Maja Petrinc and found at Šibenik-Sv. Lovre (Croatia) in a late 10th-century context supports the type's survival into the mid or late

⁹¹ Szőke 2021 184, note 1386.

⁹² Kiss 2000 245.

⁹³ Petrinc 2009 299.

⁹⁴ Turek 1969 130; Princová – Mařík 2006.

⁹⁵ Szőke 1982 38.

⁹⁶ Točík 1971 143–144, 146, 151, 155.

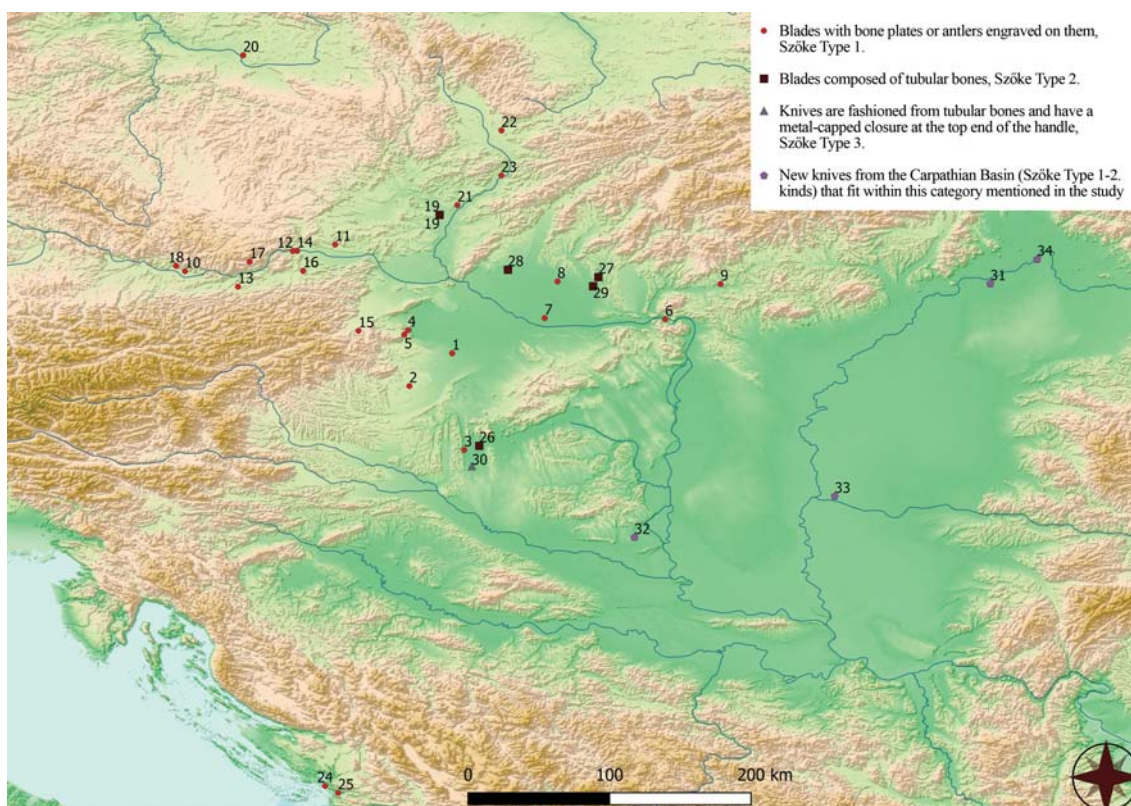


Fig. 2. Distribution of iron knives with a bone or antler handle from the 9th–11th centuries in the Carpathian Basin (©Péter Langó)

10th century.⁹⁷ A knife somewhat resembling Type 3 in Béla Miklós Szöke’s classification was discovered in Kremsburg (Styria, Austria).⁹⁸ Based on the S-shaped rings found alongside it, Austrian scholars dated this artefact to the late 10th century.⁹⁹

The knives from Himód and Szombathely provide more evidence of the persistence of the type into the 10th and 11th centuries. However, this knife type was rare in the Carpathian Basin from the 10th century, appearing mainly in areas that were once in close contact with the western territories of the Danube Valley and the Eastern Alpine region. An analysis of the Tarnóc/Trnovec nad Váhom cemetery suggests that the area of the Váh River continued maintaining these ties in the 10th century. The presence of items like these knives in 10th-century contexts indicates the persistence of contact between communities on the two sides of the border (*fig. 2*).

2. Earrings from Southeast Europe

A unique pair of earrings of Southeast European origin was found in another grave in the Himód cemetery. The ‘lunula pendant earrings’ (the lower part of the rings is decorated with a crescent applied inside, over the pendant) were part of a woman’s burial (*fig. 3*). The grave was disturbed, and its fill also contained fragments of a broken torque with hook-and-eye closure and a green glass bead.¹⁰⁰ In our research, the context of these pendants is fascinating. Like other objects from Southeast Europe, such earrings are known mainly from the southern part of the Carpathian Basin

⁹⁷ *Petrinec 2009 299.*

⁹⁸ *Kühtreiber – Obenaus 2017 165, Taf. 108.*

⁹⁹ *Kühtreiber – Obenaus 2017 165.*

¹⁰⁰ *Horváth 2022 27.*

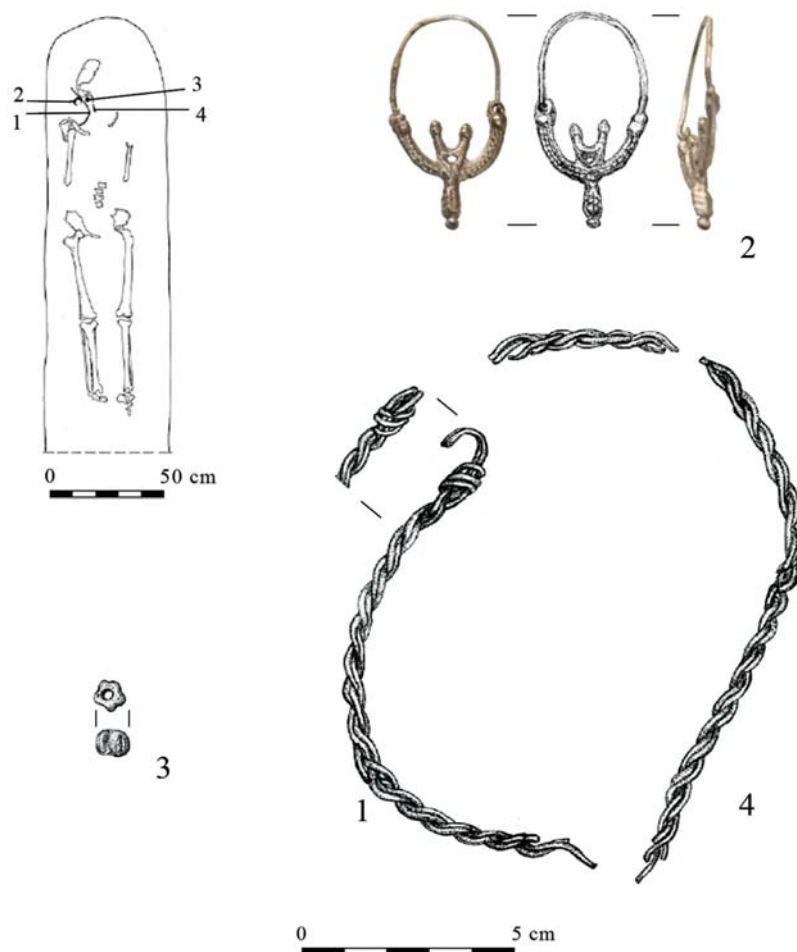


Fig. 3. Himód-Káposztás, Grave 118. 1, 4. Fragments of twisted bronze torques; 2. Drawing and a photo of lunula pendant earrings; 3. Green-coloured engraved glass bead (based on *Horváth 2022* and *Langó 2021*) (©Péter Langó)

and less from the western border area.¹⁰¹ In a broader context, analogies are known from the East Alpine region and the lands between the Drava and Sava rivers,¹⁰² as well as the territories of today's Croatia and Slovenia.¹⁰³ The cast items from the East Alpine region and the Drava–Sava Interfluve are similar to the pieces from Himód, while pressblech variants appear throughout the Balkans. It is yet to be answered how the earrings found at Himód got so far west – through the internal trade networks in the Carpathian Basin or arriving from the West? None of the scenarios can be ruled out due to its scattered distribution (there are only four sites confirmed to be authentic);¹⁰⁴ that said, the latter – the orientation towards the East Alpine region – might be corroborated by the presence of another type, crescent-shaped openwork plate pendant earrings (*fig. 4*). This Southeast European earring type appeared in the north-eastern and western parts of the Carpathian Basin, in the site of Stupava-Mást in Slovakia and,¹⁰⁵ even further west, in the cemetery of Předmostí-Nivky in the

¹⁰¹ *Mesterházy 1991*.

¹⁰² *Langó 2021* 159–160.

¹⁰³ *Petrinec 2009* 254–256.

¹⁰⁴ *Langó 2021* 92–118.

¹⁰⁵ *Kraskovská 1954* 146.

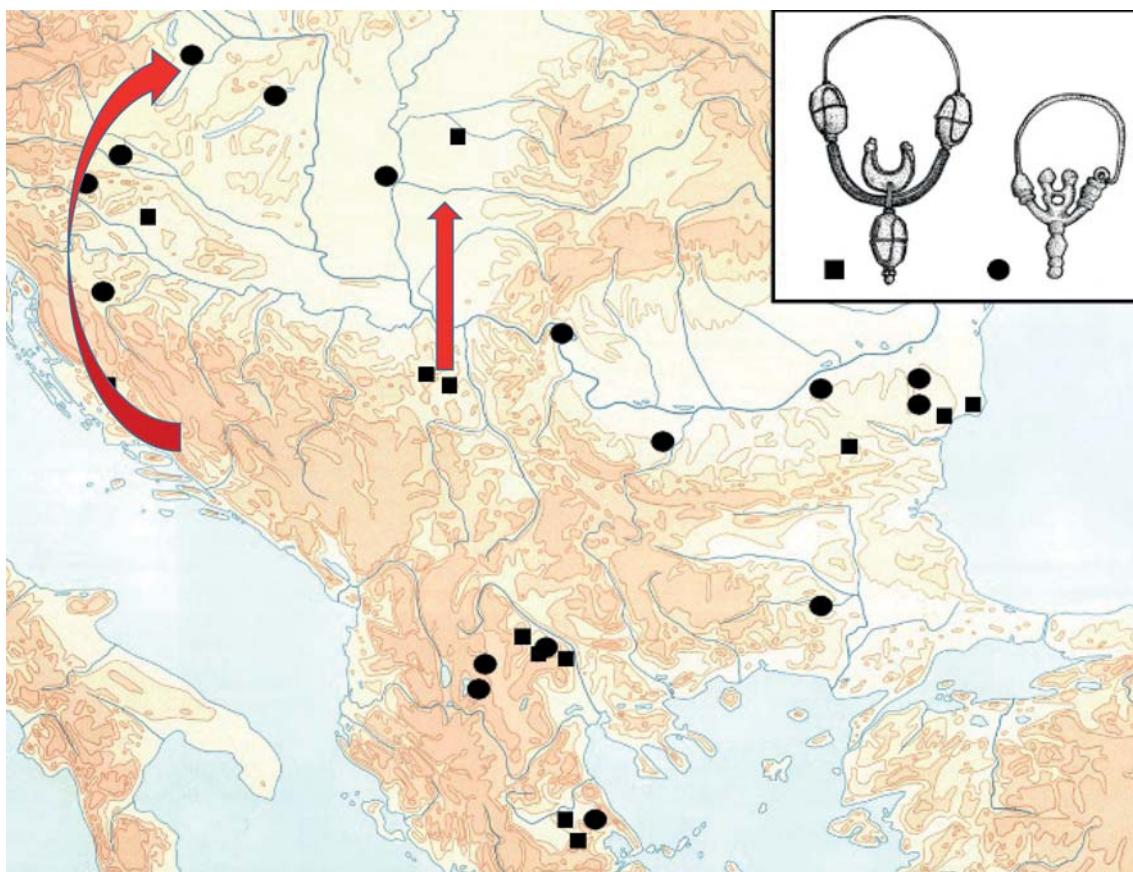


Fig. 4. Distribution of lunula pendants and lunula pendant earrings. Arrows mark the directions of the connection network related to their spread in the Carpathian Basin (©Péter Langó)

Czech Republic.¹⁰⁶ Like the ones found in Himód, these pieces most certainly reached the East Alpine region from the West (*fig. 5*). This route cannot be excluded in the case of other sites within the Carpathian Basin either, as indicated by Grave 278, a distinctive 11th-century burial discovered in the castle of Eger, a town in the north-eastern parts¹⁰⁷ (*fig. 6*). The grave contained, beside a pair of openwork plate earrings similar to the ones mentioned (but foreign to the Carpathian Basin),¹⁰⁸ the remains of an adult female in mortuary clothing with accessories reflecting West Alpine rather than southern fashion.¹⁰⁹ Other burials on the site also contained similar finds.¹¹⁰ The East Alpine ties of the Eger mortuary community provide a clear explanation for the presence of items originating unmistakably from the region:¹¹¹ besides the earrings, a disc brooch¹¹² and so-called East Alpine-type button-end rings.¹¹³ Károly Kozák, who discovered the assemblages, observed that based on their attire, the people buried here may have come from this East Alpine region.¹¹⁴ Similar grave finds from other sites (Verpelét, Pétervására) in this region corroborated

¹⁰⁶ Staňa 1970; Langó 2012.

¹⁰⁷ Kozák 1981 17–18, 26; Fodor 2008b 133.

¹⁰⁸ Fodor 2008b 133.

¹⁰⁹ Horváth 2014 367–392.

¹¹⁰ Kozák 1981 37; Fodor 2008b 143.

¹¹¹ Kozák 1981 37–38; Horváth 2014 357–412.

¹¹² Kozák 1981 37; Fodor 2008b 143; Horváth 2014 373.

¹¹³ Kozák 1981 34–35; Horváth 2014 360.

¹¹⁴ Kozák 1981 37–38.

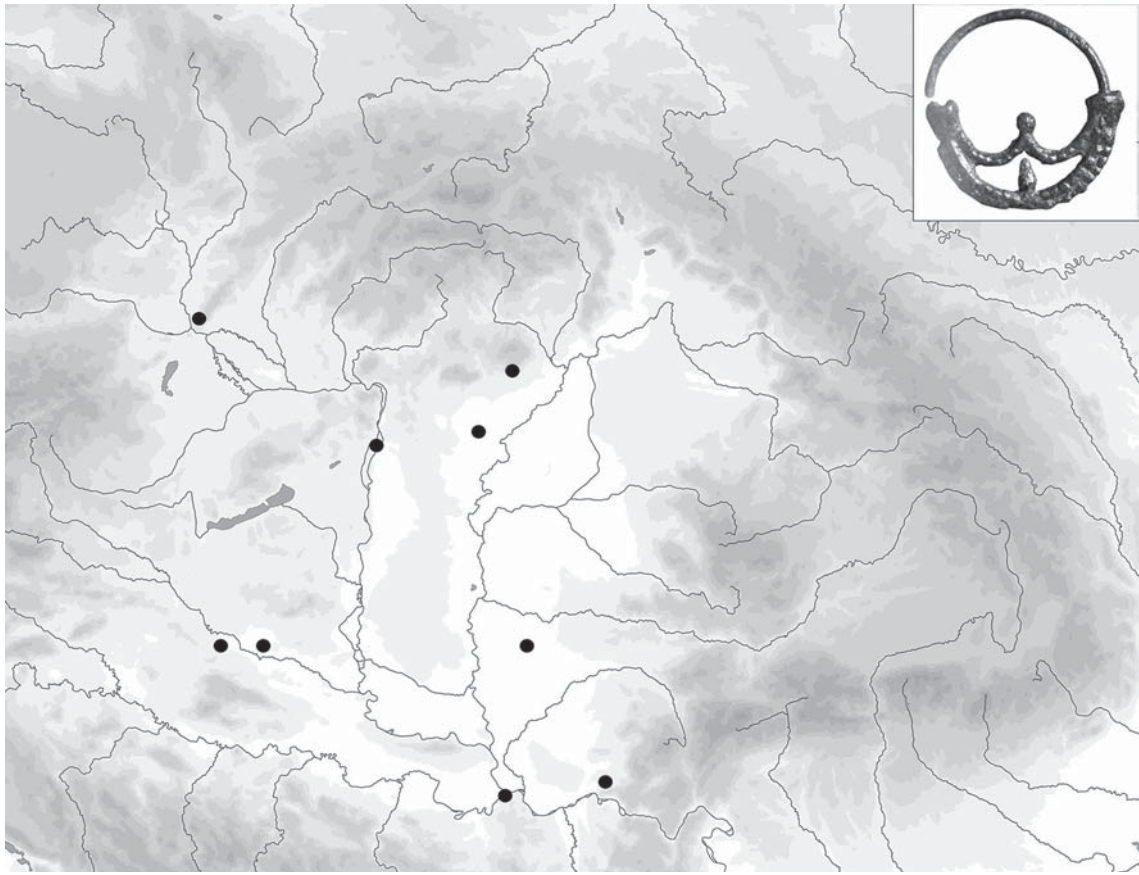


Fig. 5. Distribution of peak-terminated crescent-shaped earrings with inner bend and openwork plate (©Péter Langó)



Fig. 6. Pendants from Grave 278 of Eger-Vár (©Péter Langó)

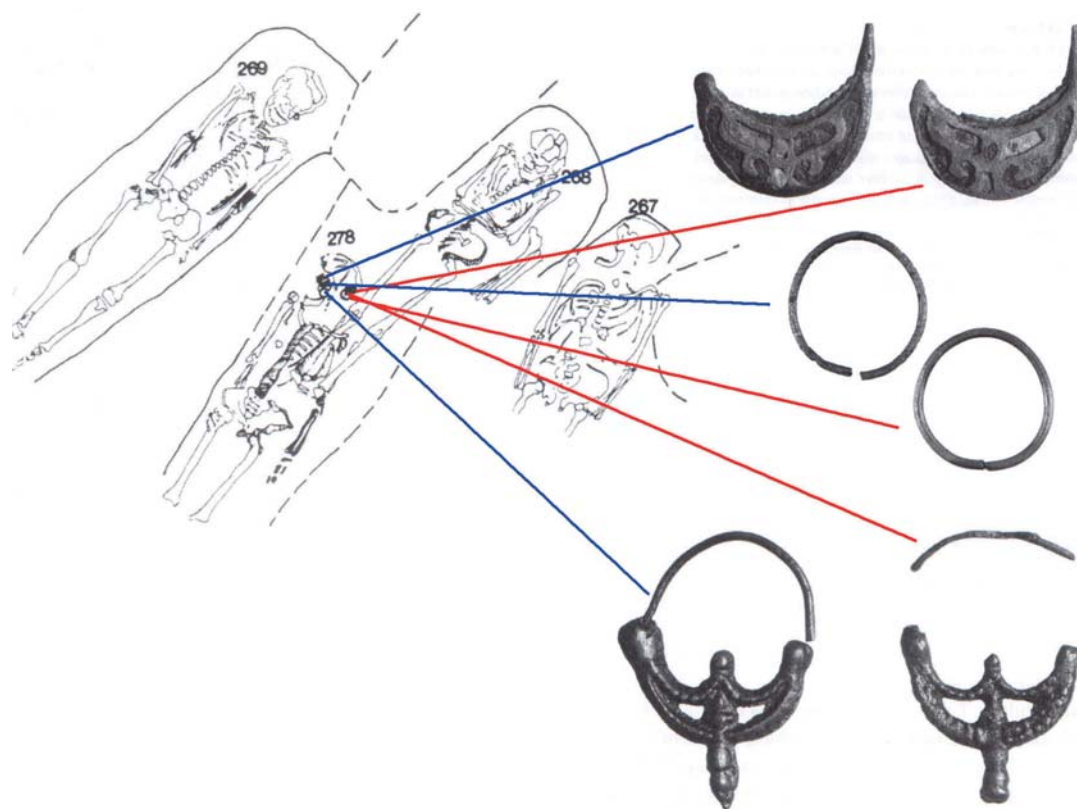


Fig. 7. Position of the earrings in the Grave 278 of Eger-Vár (after *Fodor 2008b*) (©Péter Langó)

his hypothesis.¹¹⁵ A recent analysis by Ciprián Horváth of the clothing accessories from Grave 278 of Eger verified that the crescent-shaped openwork plate pendant earrings were worn together with some East Alpine-type pendants, parts of the jewellery set of the adult woman's headdress (*fig. 7*).¹¹⁶ This provides more evidence in support of the theory that pendant earrings from Southern Europe arrived in the Carpathian Basin directly from the West, and their presence in some graves is proof of a contact network of which the lands west of the borders of the Kingdom of Hungary were part.¹¹⁷

B. Settlement finds

1. Graphitic pottery

Graphite-tempered vessels are a special feature of Árpád Age pottery. This type is rare, making up only 0.73% of the Árpád Age pottery found in settlements in Vas County,¹¹⁸ and also appearing only sporadically in Győr-Moson-Sopron,¹¹⁹ i.e., other parts of the study area. The importance of graphitic pottery is considerably higher than the frequency of its occurrence because there are no natural sources of graphite in the western parts of the Carpathian Basin,¹²⁰ thus, import, in this case, is not a possibility but a must. It is challenging to say anything about the types of Árpád

¹¹⁵ *Kozák 1981 38; Fodor 2008a 265; Horváth 2014 366.*

¹¹⁶ *Horváth 2014 390.* Ciprián Horváth believes that these Southeast European earrings 'probably reached the East Alpine region through the mediation of the Carpathian Basin', which conflicts with the theory mentioned previously (*Horváth 2014 411*).

¹¹⁷ *Langó 2021 139.*

¹¹⁸ Based on collection and evaluation by Ildikó Katalin Pap, *Pap 2016 6.*

¹¹⁹ *Takács 2009 131–138.*

¹²⁰ *Péterfi 2016 462, note 21.*

Age graphitic pottery due to the high degree of fragmentation of the related find material. Most fragments from Western Hungary are tiny parts of big, 12th–13th-century storage vessels. The formal features of these sherds, including the thick walls and the bulging rim with a club-shaped profile (*Keulenrand*),¹²¹ indicate that not only raw graphite but also some finished products, i.e., graphitic pottery vessels, were imported to Hungary, in contrast to 9th-century Carolingian Pannonia, where the proportions were the opposite (i.e., most likely not only finished products but also some raw graphite were imported).¹²² The big storage vessels in the Árpád Age were imported from Lower Austria,¹²³ most likely on water, more specifically, the Danube, as corroborated by the spread of this pottery (*fig. 8*).¹²⁴ Only a single find, a fragmentary vessel from the easternmost site, Ópusztaszer,¹²⁵ could not be connected directly with this trade route.

Conclusions

Borders represent a research topic which, at least in context with the Kingdom of Hungary in the Árpád Age, and especially its western frontiers, is not easily investigated with archaeological methods. The find material may only hint at the significance of the border when interpreted properly.

Despite the difficulties, a proper analysis may reveal evidence indicating the military importance of the border and the connections between its two sides. The military aspect, i.e., border protection, can best be proven and visualised via a topographical analysis of the related sites, including 10th–11th and 11th–13th-century cemeteries, county forts, and ditches. Cross-border trade connections in the Árpád Age Kingdom of Hungary (including the western parts) may be traced via the distribution of some particular artefact types.

Árpád Age borders have clearly nothing in common with modern state borders (the repercussions of which sometimes, like in the case of the Iron Curtain, have a lasting effect on both sides).¹²⁶ The political demarcation did not impede cultural exchange among communities residing on either side of the border, irrespective of their location. Thus, the border, functioning within the natural landscape, assumed a segregating function and also enabled the transmission of influences between individuals dwelling in close proximity at either side of the border. Csanád Bálint mentioned the significance of spatial relationship analysis when studying the Hungarian Conquest Period in the southern part of the Carpathian Basin. As the presented examples may also show, this idea is still valid when it comes to the material culture of the western border area in the 10th and 11th centuries, a result of the cultural ties between the various regions on the two sides of the political border which did not overrule them. Thus, Western Transdanubia mediated in the 9th century between the north (Moravian Principality, Ostmark) and the south (Provincial *Carantanorum*, *Pannonia Inferior*, *Dalmatia*).¹²⁷ According to Patrick J. Geary, the traditions and customs of the groups that were divided by political boundaries persisted but gradually changed.¹²⁸ In the meantime, the previously established cultural networks might continue playing an intermediary role since they are deeper and more lasting than the ‘new’ division.¹²⁹

¹²¹ *Scharrer-Liška 2003* 49–52.

¹²² *Merva 2016* 535–536.

¹²³ *Takács 2009* 131–138.

¹²⁴ *Takács 2009* Plate 2.

¹²⁵ *Vályi 1995* 279, fig. 2. 2.

¹²⁶ For an illustration of its significance from a science historical point of view, see *Török 2009* XV–XVI.

¹²⁷ *Szőke 2014* 9–104; *Szőke 2021* 437, note 2784.

¹²⁸ *Geary 2001* 30–33. Cf. *Geary 2013* 12–37.

¹²⁹ *Romhányi 2017*.

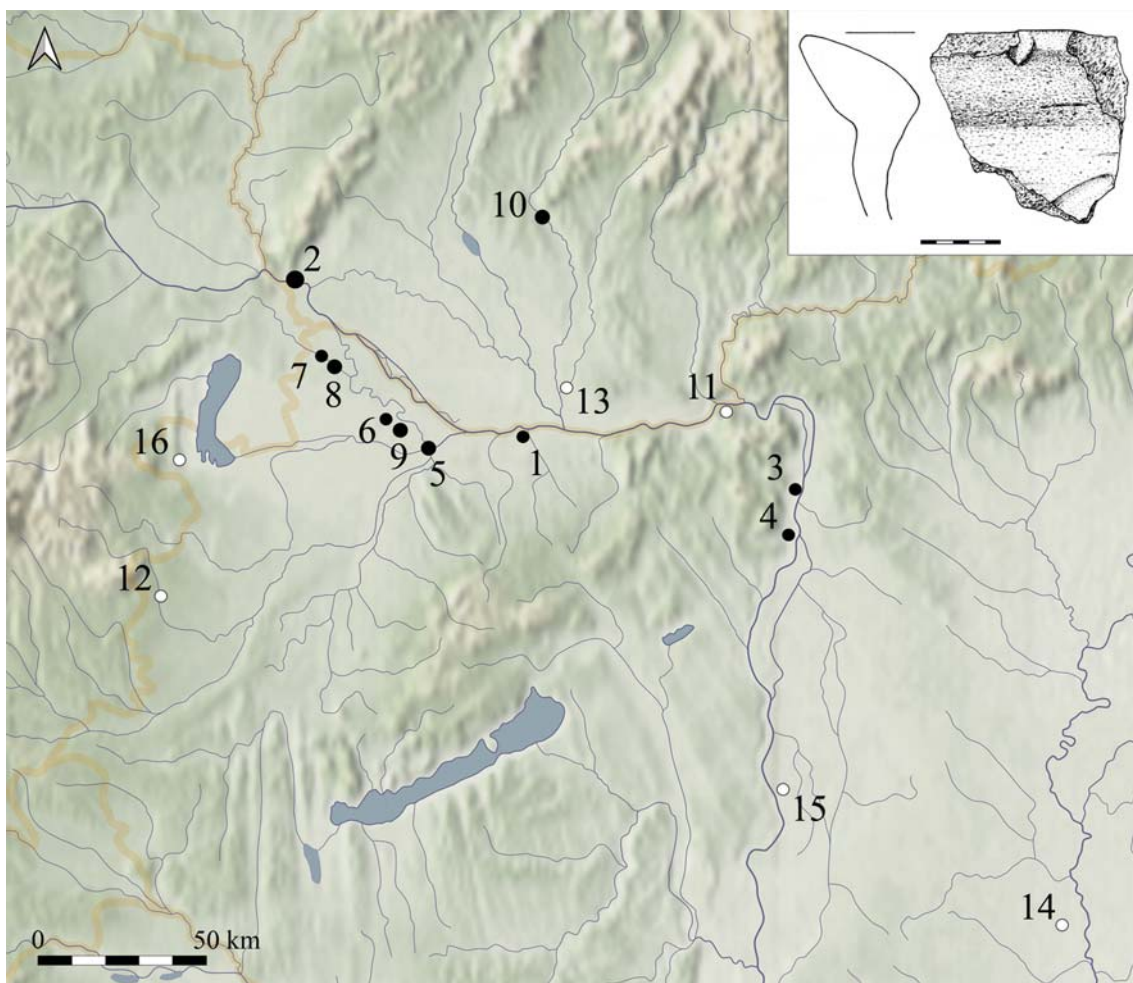


Fig. 8. Distribution of Árpád Age graphitic storage vessels with a club-profiled rim

Sites with identified vessels (black dots): 1. Ács (Personal communication by Nikoletta Lukács); 2. Bratislava-hrad, Bratislava-Vodná veža, Bratislava-Rudnayove nám., Bratislava-Hlavné nám., Bratislava-Uršulínska ul., Bratislava-Leningradská ul., Bratislava-Sedlárska ul., Bratislava-západné suburbium, Bratislava-Nálepkova ul., Bratislava-Dúbravka (Slovakia) (10 sites) (*Fusek – Spišiak 2005 316, fig. 17*); 3. Budapest-Óbuda, Lajos út (1 site) (*Péterfi 2016 477–490, Pl. 1–3*); 4. Budapest XI., Kőérberki út, Kána falu (1 site) (*Terei 2017 154*); 5. Győr-Káptalandomb, Győr-ECE (2 sites) (*Merva 2016 fig. 3. 5*); 6. Lébény-Kaszás-domb, Lébény-Bille-domb (2 sites) (*Takács 2009 135, note 27, Pl. 1. 6*); 7. Levél-M1–M15 csomópont (1 site) (*Takács 2009 135, note 27*); 8. Mosonmagyaróvár-Királydomb, Mosonmagyaróvár-Iskola utca, Mosonmagyaróvár-Mosonszentmiklósi pihenő (3 sites) (*Tomka 1976 fig 10. 8; Takács 2009 135, note 27; Aszt 2003 193*); 9. Mosonszentmiklós-Egyéni földek (1 site) (*Takács 2009 135, note 27*); 10. Nitra-Farská ul., Nitra-Mostná ul. (Slovakia) (2 sites) (*Fusek – Spišiak 2005 316, fig. 17*)

Sites with uncertain occurrences (side fragments) (white dots): 11. Esztergom-Kossuth Lajos utca 60, Rác templom (1 site) (*Lázár 2001 161*); 12. Gencsapáti-Besenyő (1 site) (*Koller 2016 139*); 13. Hurbanovo-Bohatá (Slovakia) (1 site) (*Habovštiak 1961 fig. 28. 20–21, 24–26*); 14. Ópusztaszer-Szer monostora (1 site) (*Vályi 1995 279, fig. 2. 2*); 15. Solt-Tételhegy (1 site) (*Takács 2014 116*); 16. Sopron-Új utca–Szent György utca sarka (1 site) (*Merva 2016 fig 4. 7*) (©Miklós Takács, ©Zsóka Varga)

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