



## „Hadak útján”

A népvándorlaskor fiatal kutatóinak  
XXVI. konferenciája

GAZDASÁG – KERESKEDELEM – KÉZMŰVESSÉG

26<sup>th</sup> Conference of Young Scholars  
on the Migration Period

ECONOMY – TRADE – CRAFTSMANSHIP



DISSERTATIONES ARCHAEOLOGICAE  
ex Instituto Archaeologico  
Universitatis de Rolando Eötvös nominatae  
*Supplementum 2.*

„HADAK ÚTJÁN”

A népvándorláskor fiatal kutatóinak  
XXVI. konferenciája

GAZDASÁG – KERESKEDELEM – KÉZMŰVESSÉG

---

26<sup>th</sup> Conference of Young Scholars  
on the Migration Period

ECONOMY – TRADE – CRAFTSMANSHIP

Budapest, 2016. november 3–4.

edited by

Zsófia RÁCZ – István KONCZ – Bence GULYÁS



Budapest 2018

Dissertationes Archaeologicae ex Instituto Archaeologico  
Universitatis de Rolando Eötvös nominatae  
*Supplementum 2.*

Editors:  
BENCE GULYÁS  
ISTVÁN KONCZ  
ZSÓFIA RÁCZ

Available online at <http://dissarch.elte.hu>  
Contact: [dissarch@btk.elte.hu](mailto:dissarch@btk.elte.hu)

**PKP**  
PUBLIC  
KNOWLEDGE  
PROJECT

ISSN 2064-4574

© Eötvös Loránd University, Institute of Archaeological Sciences  
Layout: Gábor Váczi

Budapest 2018

# TARTALOM – CONTENTS

Zsófia RÁCZ – István KONCZ – Bence GULYÁS	7
<hr/>	
<i>Szerkesztői előszó</i>	
SZALONTAI Csaba	9
<hr/>	
<i>Az utakról. Szempontok az úthálózat kutatásához</i>	
Anita KOROM	21
<hr/>	
<i>Archaeological study of face beads excavated from an Early Sarmatian grave</i>	
Bernadett BAJNÓCZI – Krisztián FINTOR – Máté SZABÓ – Mária TÓTH	33
<hr/>	
<i>Preliminary micro-XRF study of mosaic face beads found in an Early Sarmatian grave excavated at Dunakeszi – implications for the base glass composition and colourants</i>	
Zsófia MASEK	45
<hr/>	
<i>Új szempontok a hun kori üstök kutatásához egy új magyarországi lelet tükrében</i>	
<i>Függelék</i>	
BARKÓCZY Péter – MAY Zoltán	109
<hr/>	
<i>Az ócsai hun üsttöredék XRF vizsgálata és pásztázó elektronmikroszkópos vizsgálata</i>	
Anett MIHÁCZI-PÁLFI	129
<hr/>	
<i>A balatonszemesi 5. századi temető kisleletei. Anyagközlés és elemzés</i>	
István KONCZ	163
<hr/>	
<i>About brooches and networks: Some remarks on the female dress in 6<sup>th</sup> century Pannonia</i>	
Zsófia KONDÉ – Attila KREITER – Bernadett BAJNÓCZI – Mária TÓTH – Orsolya VIKTORIK	177
<hr/>	
<i>The organization of ceramic production: A comparative analysis of typology and petrography at the Avar Age settlement of Daruszentmiklós (Hungary)</i>	
Levente SAMU	233
<hr/>	
<i>Über die Zusammenhänge den Gürtelschnallen mit festem Beschlag und Motiven in Durchbruchornamentik und den Gürtelbeschlügen der zweiten Hälfte des 6. und beginnenden 7. Jahrhunderts</i>	

Adrienn BLAY	257
<hr/>	
<i>Vorläufige herstellungstechnische Beobachtungen zu den frühawarenzeitlichen halbmondförmigen Ohrringen</i>	
Eszter PÁSZTOR – Zsuzsanna TÓTH	271
<hr/>	
<i>Bone and Antler Working in the Avar Cemetery of Bodajk</i>	
Gergely SZENTHE	291
<hr/>	
<i>Material culture patterning as the source of the Avar power network, 8<sup>th</sup> century AD</i>	
Zoltán RÓZSA – Csaba TÓTH	315
<hr/>	
<i>This king likes Muslims... Traces of an exceptional settlement from the Árpáadian Age 3.</i>	
Péter CSIPPÁN	325
<hr/>	
<i>A későközépkori Révfalu állattartása</i>	

# Szerkesztői előszó

RÁCZ ZSÓFIA

*Régészettudományi Intézet  
Eötvös Loránd Tudományegyetem*

zsafia\_racz@yahoo.de

KONCZ ISTVÁN

*Régészettudományi Intézet  
Eötvös Loránd Tudományegyetem*

fredgar22@gmail.com

GULYÁS BENCE

*Régészettudományi Intézet  
Eötvös Loránd Tudományegyetem*

gbence567@gmail.com

A „*Hadak útján*” – *A népvándorlaskor fiatal kutatóinak konferenciáját* először 1990-ben, Szentesen rendezték meg nagy érdeklődés közepette. A rendezvény hiánypótlónak számított, korábban ugyanis nem volt lehetősége a pályakezdő népvándorlás koros régészeknek, hogy saját korosztályuk körében megosszák egymással tudományos eredményeiket. Már az első találkozó interdiszciplináris együttműködésre törekedett: régészek mellett történészek, művészettörténészek és nyelvészek is előadást tartottak; az előadások alapján készült tanulmányok külön kötetben jelentek meg. A konferencia elnöki tisztjét az első alkalom óta dr. Tomka Péter, a Kárpát-medencei népvándorlás kor kiemelkedő kutatója tölti be.

A szentesi konferencia egy sikeres sorozat első állomása lett: 2015-ben, Révkomáromban a kezdeményezés már negyedszázados születésnapját ünnepelhette. A „*Hadak útján*” 26. találkozójának megszervezését – a sorozat történetében először – az ELTE BTK Régészettudományi Intézete vállalta magára. Témájául a népvándorlás kori gazdaság, kereskedelem és kézművesség kérdésköreit választottuk. 2016. november 3–4-én összesen 47 előadótól mintegy 32 előadást hallhattunk, amelyeket témakörök szerint több szekcióba – kapcsolatrendszerek, kereskedelem, gazdálkodás és háztartások, anyag és technológia, valamint kézművesség – soroltunk. Ezek közül most 13 előadás jelenik meg írásos formában is, részben magyarul, részben azonban – a megjelenésnek teret biztosító folyóirat, a *Dissertationes Archaeologicae* irányelvei alapján – angol és német nyelven. Reméljük, hogy az idegen nyelvű kiadás segítségével a konferencián bemutatott sokrétű és gyakran új módszertani megközelítésre támaszkodó eredmények a nemzetközi kutatás számára is hozzáférhetővé válnak.

Budapest, 2018. október 1.

## A konferencia eddigi helyszínei

- 1990 Szentes
- 1991 Nyíregyháza
- 1992 Sátoraljaújhely
- 1993 Visegrád
- 1994 Szenna
- 1995 Velem
- 1996 Pécs
- 1997 Veszprém
- 1998 Eger
- 1999 Szeged – Domaszék
- 2000 Székesfehérvár
- 2001 Simontornya
- 2002 Gyula
- 2003 Keszthely
- 2004 Várgesztes
- 2005 Nagykovácsi
- 2006 Nagyvárad
- 2007 Kecskemét
- 2008 Győr
- 2010 Budapest – Szigethalom
- 2011 Szeged
- 2012 Visegrád
- 2013 Veszprém
- 2014 Esztergom
- 2015 Révkomárom
- 2016 Budapest
- 2017 Debrecen
- 2018 Mosonmagyaróvár

# Material culture patterning as the source of the Avar power network, 8<sup>th</sup> century AD

GERGELY SZENTHE

Hungarian National Museum

szenthe.gergely@hnm.hu

---

## **Abstract**

*Determined by group identities, the variables which indicate social hierarchies seem to materialize in case of the Avar period Carpathian Basin mostly in the field of objects of daily use and costume accessories. The analysis of the distribution of these objects – both spatial and chronological – reveals basic structures of the late Avar period (8<sup>th</sup> century AD) network which had operated the Khaganate as a complex system. The paper investigates the discussed elements from a methodological point of view.*

---

## **Introduction**

The present paper investigates Avar Period (and particularly Late Avar Period) social structures, with respect to the problem of how those manifest themselves in the archaeological evidence.<sup>1</sup>

It is a commonplace that the scenes of power display depend on the given society and culture. A spatial manifestation of the hierarchy of power is rooted in settlement hierarchy as well as the built environment in case of Byzantine social systems, using space as a frame of reference. This is characteristic to Western European social structures with late Roman foundations, but also to less hierarchical Germanic societies.

At the present stage of research of the Avar Period Carpathian Basin, merely the manor houses of Germanic origin can be assumed to be spatial points of focus, reflecting social hierarchy.

Among all the published settlements it was only the Kölked-Feketekapu site where long-houses and their yards were documented, their structure<sup>2</sup> identical to that of the Germanic farmsteads<sup>3</sup> elsewhere in Europe. Furthermore, according to the data already published by Zsuzsanna Hajnal the ceramic material of the settlement shows a concentration of ceramics with Germanic style printed decoration<sup>4</sup> as well as others of Late Antique type<sup>5</sup>. These phenomena distinguish the Kölked site among the contemporary Avar settlements. The find material of the grave groups published by Attila Kiss<sup>6</sup> and contextualised within Western European cross cultural relations by him<sup>7</sup> and Tivadar Vida yielded spectacular additions.<sup>8</sup>

1 This research was funded by the János Bolyai Research Fellowship.

2 About the settlement structure see HAJNAL 2009, 112.

3 HAJNAL 2009, 92.

4 HAJNAL 2013.

5 HAJNAL 2006.

6 KISS 1996; KISS 2001.

7 KISS 2001, 268–334; KISS 1992.

8 VIDA 2008, 18–31.



Accordingly, Kölked was not one of the 'ordinary' central settlements characteristic to the Avar Period Carpathian Basin but a culturally distinguished phenomenon, seemingly reflecting to the extra-Carpathian Basin, Merovingian Age Western European socio-cultural structures. Apparently, similar settlement centres could exist within the Carpathian Basin only in connection with specific Germanic populations and it is uncertain how their role and significance has changed due to the impact of the Avar power structure and its traditions of social display. Similarly to the Kölked site, the Keszthely Culture is also a unique phenomenon, however a central role of the Fenékpuszta fortress within the Avar settlement system is beyond proof.<sup>9</sup>

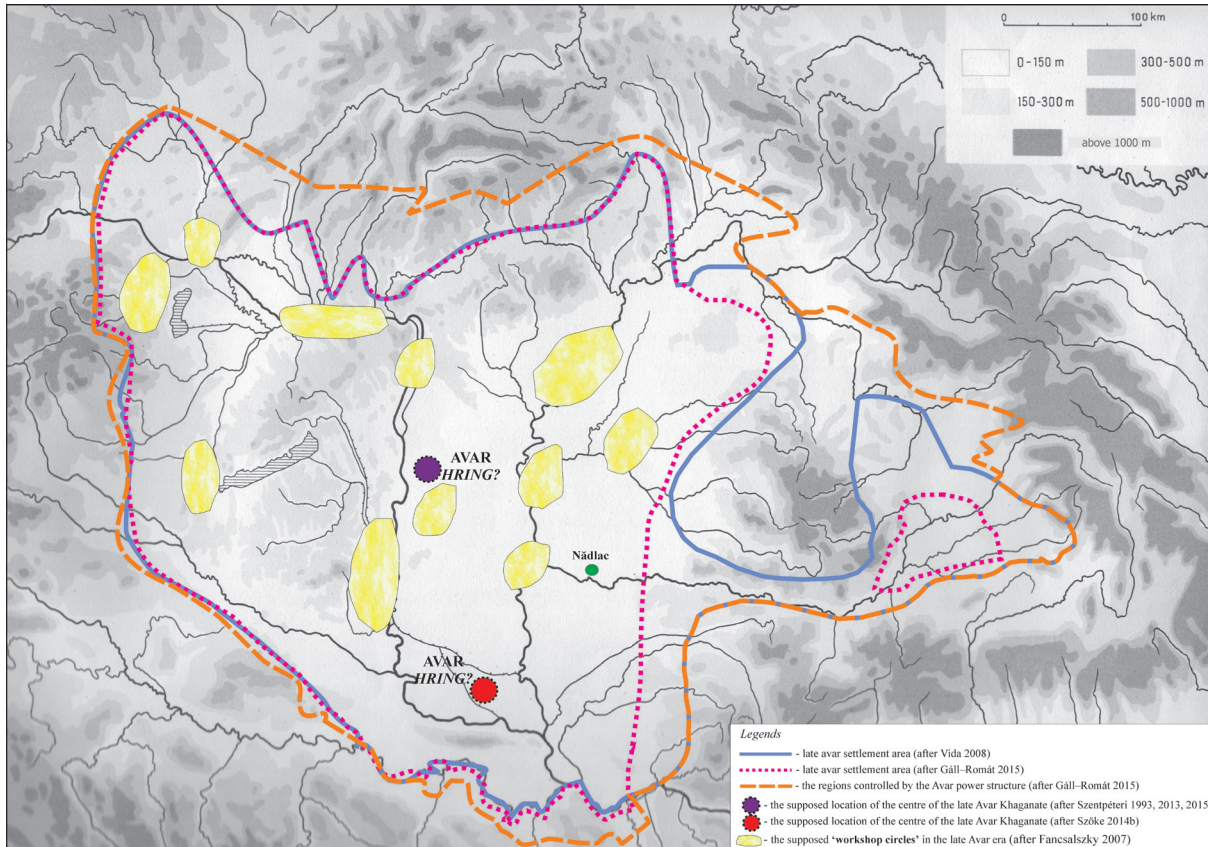


Fig. 1. The Avar settlement area and the supposed locations of the 'Hring' of the Avars (after COCIŞ – GÁLL – URÁK 2016, Fig. 9)

According to the present stage of research, no dramatic changes can be documented in the settlement patterns based on a non-hierarchic system of rural settlements of the Late Avar Period.<sup>10</sup> The so-called 'hring' known from Frankish written sources is long since considered as the 'centre of power' of the late Avar Khaganate or maybe even the centre of the khagan.<sup>11</sup> Nevertheless, we have no data on the characteristics, built-up density or (perhaps permanent) population of the 'hring',<sup>12</sup> 'where the Khagans and rulers of the Avars hold their meetings'.<sup>13</sup>

9 Research identifies the bearers of the Keszthely Culture as a distinct ethnic and/or religious group of late antique tradition in Avar context. For a summary see VIDA 2009a; VIDA 2009b, 318–320.

10 The change that can still be reconstructed is of such rate that Béla Miklós Szóke could describe the Avar society as early feudal, SZÓKE 2014, 26–29. Although analyses are still missing regarding this matter, his observation is most important as a working hypothesis for future research.

11 SZÓKE 2014, 12; for a summary of related literature see BALOGH 2016, 328–332.

12 See for example Annales Laureshamenses, Annales Einhardi, year 796.

13 In most detail: POHL 2002, 306–308.

Furthermore, beside the fact that such a structure should be localized east of the River Danube,<sup>14</sup> an exact geographic position remains unclear (*Fig. 1*), and there is definitely no proof that there could have been more than one of these establishments.<sup>15</sup> Although the written sources – all closely related to each other – tend to use the term ‘regia’, royal court,<sup>16</sup> Einhard, who was the one who must have had first-hand information on the situation, considered the word ‘regia’ unsuitable thus found it necessary to give further explanation: ‘the name of which is, as it is said, Hring, however Lombards call it field (campus)’.<sup>17</sup>

In western terminology ‘hring’ or ‘campus’ most probably refers to a representative place of assembly<sup>18</sup> where certain decisions were made, and which had an important role in the demonstration of Avar social hierarchy, more precisely the display of the power of the Avar elite, probably also through exposing treasures they have hoarded. Thus we have no data to prove that this place was, in reality, one of the political centres of the Avar Khaganate or maybe even a permanent seat of the Khagan. More likely it can be considered an analogue to the places of assembly used periodically by early feudal societies.<sup>19</sup> Much has been written about the “Pliska kampos” of the column with a Greek inscription of the khan Omurtag, dated to the year 822. However, in the case of Pliska there are no proves that the kampos would mean more than a field.<sup>20</sup> Accordingly, it seems to be likely that the Lombards – like the Bolgars obviously did –, acquired the category “campus” from the Byzantine source.

There is no evidence as to the similarity of the political and social structure of the early and late Avar Khaganate – in fact, more arguments stand against it.<sup>21</sup> Still, at the present stage of research, and at least in the central part of the Carpathian Basin, that is, in the central lands of the Avar Khaganate<sup>22</sup> the lack of settlement hierarchy seems to be constant. Respectively, in those cases where certain settlement structures do emerge from the system of early rural settlements, such as Kölked and Keszthely, a cultural distinction of the local population can also be documented.<sup>23</sup>

14 „*Pippinus autem, Hunis trans Tizam fluvium fugatis, eorumque regia, quae, ut dictum est, Hringus, a langobardis autem campus vocatur, ex toto destructa, direptis pene omnibus Hunorum opibus, ad patrem Aquisgrani hibernam habente venit, ac spoliis regni quae secum detulit, eidem praesentavit.*” *Annales Einhardi* a. 796. – ‘Thus Pepin, after driving the Huns beyond the River Tiza, destroying completely their royal seat called ‘Hring’, or meadow as Longobards call it, and robbing them of almost all their riches, returned to his father for the winter...’

15 SZENTPÉTERI 2013.

16 *Annales Einhardi* 796 and based on it, Poeta Saxo 796. (MGH SS I. 183, 252).

17 See note 19.

18 This is also supported by the text of the *Annales Laureshamenses*: „(*Pippinus*)... *pervenit ad locum, ubi reges Avarorum cum principibus suis sedere consueti erant, quem et in nostra lingua Hringe nominant*” – “Pepin arrived to the place where the kings and nobility of the Avars held their meetings.” *Annales Laureshamenses* a. 796, MGH SS I. 37.

19 In the 6–8<sup>th</sup> century, ‘campus Martius’ appears as the scene of military parades and jurisdiction in Frankish and Longobardic context: FLECKENSTEIN 1993, 361.

20 HENNING ET AL. 2007, esp. 434–435.

21 In this respect usually the multitude of names of late Avar dignitaries is quoted as an argument (POHL 2002, 292–306), or the somewhat less steady but widespread theory about the introduction of diarchy, which is however based on a debatable interpretation of the written sources (see the plural of ‘reges’ in Note 18). POHL 2002, 293–300.

22 Regarding the tendencies of centralization commencing in the close environs of the Carpathian Basin from the 8<sup>th</sup> century onwards see for example SIKORA 2014.

23 Therefore the expression ‘central place’ is still unsuitable in the milieu of the Carpathian Basin.

## Methodology

Therefore, I suggest to discuss the matters of political and social ‘centres’ – or better be called central traits – in a different system of concepts. From the archaeological material and features, those elements should be sorted out which, being the expressions of prestige, may hint to the inner relations of the Avar Khaganate as a political structure as well as the Avar society as a hierarchical organization.

The concept of networks is first introduced in the archaeology of the Early Medieval Carpathian Basin by Erwin Gáll,<sup>24</sup> when speaking about a ‘Hungarian network of power’ in relation to the period following the Hungarian conquest. According to him, by recognizing this network, ‘the complex sequence of political, sociological and social psychological phenomena’ which characterized this era becomes definable.<sup>25</sup> A great advantage to this approach is that by shifting the emphasis to the search for the central traits perceptible in the patterns of archaeological phenomena, the high amount of the archaeological material to be examined in this respect allows it to be less speculative.

As settlement patterns cannot, neither the differences in the size and find material of late Avar cemeteries can be axiomatically interpreted as manifestations of central or peripheral character in a social-political sense, as they may result from the regional topographical conditions<sup>26</sup> as well as from the cultural characteristics of a certain community, motifs which define settlement patterns as well.

In contrary to the high population concentration<sup>27</sup> of the Transdanubian region, proved also by the cemeteries with a multitude of graves such as Zamárdi or Keszthely,<sup>28</sup> in the Alföld region cemeteries usually contain less graves which hint to a different, sporadic settlement pattern.<sup>29</sup> However, this statement is only true as a tendency,<sup>30</sup> and does not refer to the Early and especially to the Middle Avar Period, when there were many solitary graves all around the Carpathian Basin as well as grave groups or graveyards which were only rarely used or abandoned shortly for some reason.

As a most spectacular example of this, the case of Zamárdi, suggested to be a capital of the khagans, requires special attention.<sup>31</sup> Although this is the largest known Avar cemetery pos-

24 GÁLL 2014.

25 GÁLL 2014, 82.

26 Extensive, inhabitable areas (for example in the north-western part of the Carpathian Basin or in the Mezőföld region as well as south of it, in the territory of today’s Tolna and Baranya counties), mounds elevating from the moist surroundings as well as narrow, flood-free banks along the River Tisza. Concerning habitation around present day Szeged see SZALONTAI – SÜMEGI 2014; concerning the region between the Rivers Tisza, Maros and Körös see COCIŞ – GÁLL – URÁK 2016, 68, Pl. 24.

27 This settlement pattern is explained by the habitation of strategically important locations in VIDA 2009b, 317.

28 The absence of ‘rich’ grave goods is especially conspicuous in the case of the late Avar cemeteries at Keszthely, paired by an archaeological material proving a local identity: concerning the late phase of the Keszthely Culture see KISS 1997.

29 Fully excavated cemeteries with a maximum of 200–250 graves for example Kisköre (GARAM 1979); Kecel-Határdűlő (Cs. Sós 1958); around Szeged: SZALONTAI 2016, 688; cemeteries at Orosháza: JUHÁSZ 1995; Mártély-Csanyi-part (FARKAS 1892; SZEREMLEI 1900, 462–481; PÁRDUZ 1937, 177–180); around Szentes: the most important cemeteries are Lapistó, Felsőcsordajárás, Nagyhegy, Berekhát-Farkas-tanya: ADAM 2002, 352–357.

30 See the case of Tiszafüred-Majoros (GARAM 1995).

31 SZENTPÉTERI 2013, 169–170.

sibly with more than 4000 graves, its central character seems to be contradicted by the late Avar graves of the cemetery. In the 'richest' grave group, including belt sets made of copper alloy as well as horse graves, coffins were routinely adorned with metal sheet crosses.<sup>32</sup> These objects are unique and must be treated as local and marginal phenomena in the archaeological material of the Avar Period. The crosses on the most well-furnished Late Avar Period graves – those containing copper-alloy objects of relatively low value and quality, as usual for the grave assemblages of the period in general – are evidences of an identity with Western European or more likely Italian connections,<sup>33</sup> but seemingly marginal in the Avar power system.

Up to this day, researchers attempted to identify 'centres of power' in the Avar Period based on objects made of precious metals or mostly gilded artefacts, as well as the analysis of graves with weapons.<sup>34</sup> The argument however comes around in two steps: the presence of precious metal objects and weapons points toward the elite because the elite is militant and possesses great wealth, therefore members of the elite are given weapons and precious objects as grave goods. Although there is undeniable verity to this argument, the justification of the method is utterly questionable in the case of the Late Avar Period discussed in this paper. Namely, in this period graves are seldom fitted with precious metal objects<sup>35</sup> or weapons<sup>36</sup>, these characteristics only appear pointwise and are the results of cultural and social motivations unknown to us, therefore their interpretation is highly debatable. In order to filter the influence of the free association model, fitting the graves into a single scheme would only be possible when other elements of settlement structure, material culture and funerary practices would all be considered.<sup>37</sup>

Surveys of Avar cemeteries suggest that even within a narrow geographical area funerary rites may be of considerable diversity.<sup>38</sup> However, in order to examine the social hierarchy of the Avars, such an element of the archaeological material is required that appears in the same form over the whole Avar settlement area and would seem equally important everywhere. That is, its appearance would barely be (and if so, uniformly) distorted by funerary practices all over the Carpathian Basin. Moreover, cultural factors otherwise responsible for local-regional traits would have minimal or no effect on it, and of course it should have a role in the demonstration of social prestige.

Although in terms of structure, number of graves and funerary practices late Avar cemeteries more or less differ from each other, among grave goods, objects belonging to the personal attire are quite standardized concerning their characteristics, types and – usually

32 BÁRDOS – GARAM 2014, see e.g. the graves nr. 1652, 1706, 1709, 1808, 1887, 1895, 1899.

33 KNAUT 1994.

34 H. TÓTH – HORVÁTH 1992: based on Kunbábony and other sites of the pseudo-buckle type; VIDA 2009, 314; BALOGH 2016, 328–331.

35 Collected in SZENTHE 2015a.

36 Late Avar period cemeteries with more weapons are e.g. Komárno-Lodenice (TRUGLY 1987 and TRUGLY 1993); Košice-Šebastovce (BUDINSKÝ-KRIČKA – TOČIK 1991) or the recently published Valalik-Všechsvätých, ZÁBOJNÍK – BÉREŠ 2016). As a common sense of the research, cemeteries with graves well-furnished with weaponry emerge mostly at the peripheries of the Avar settlement area during the late period. However, unpublished Late Avar Period cemeteries in the Great Plain area make this assertion a bit hazardous.

37 The first forward works to follow this train of thought, with a regional focus: COÇIS – GÁLL – URÁK 2014; BALOGH 2016.

38 See the yet unpublished MA thesis of Zalán András Szalai, providing excellent and relevant data through the comparison of three cemeteries from the northwestern part of the Carpathian Basin: SZALAI 2015.

meager – value. Therefore, material culture preserved in late Avar cemeteries is, considering some limitations, quite suitable to represent relations within the system. ‘Standardization’ is however not complete: for example, small differences can be detected in the practice of putting precious metal objects into the graves. Accordingly, in some smaller cemeteries or solitary graves belt mounts made of precious metals – thus quite out of the ordinary – may appear.<sup>39</sup> As these mounts do not differ from the average quality mounts made of non-ferrous metals in respect of form and technology, it is possible that their material rather reflects the traditions of a cultural group following a unique, ‘out-of-the-ordinary’ model of representation, and not so much those of a social group with high demand, that is, an elite.

Still, when looking for such an element of the Avar material culture, which can be considered the most steady sign of the Avar influence or perhaps even the proof of the presence of the Avar power structure,<sup>40</sup> and is capable of synthesizing the phenomena of late Avar culture, we evidently come to the ornate belts. Based on their frequency as grave goods,<sup>41</sup> ornate belts should have had an important role in the representation of Avar male identity.<sup>42</sup> The high-value esthetical work<sup>43</sup> reflected in the decoration of the mounts and not influenced by raw material, is also hinting at their high prestige value.

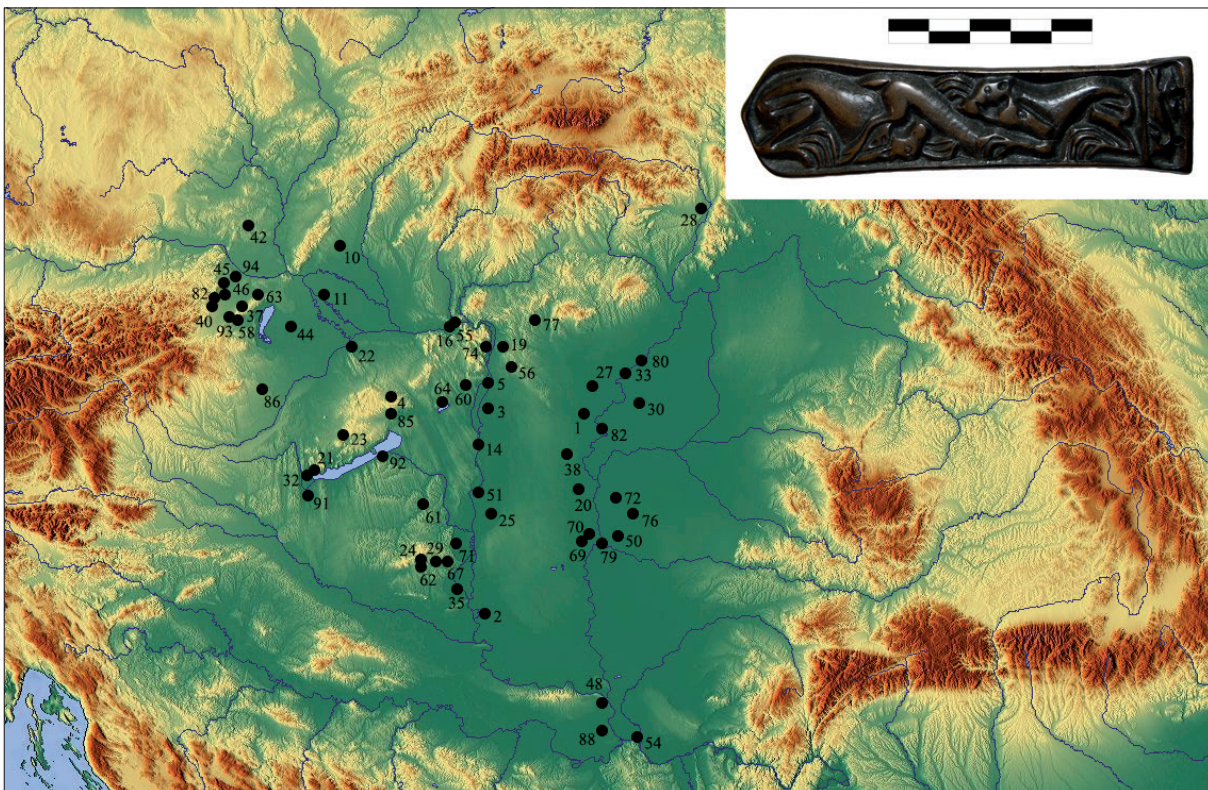


Fig. 2. Large strap ends with animal combat scenes of the ‘type Avar’ in the Carpathian basin

39 Collected in SZENTHE 2015a, 297–307.

40 A collection of innovative questions raised but left unanswered up to this day: DAIM 1996.

41 About 10% of the male graves include belt mounts: FANCSALSKY 2007, 19–20.

42 As to the significance of belts: DAIM 1996, 340; VIDA – PÁSZTOR 1996, 341–342. Their exact role is however unknown. According to Falko Daim the owners would be bearers of a social role connected to legal status: DAIM 1996, 340. Gábor Fancsalszky considered the men with ornate belts ‘leaders of village communities’: FANCSALSKY 2007, 33.

43 SZENTHE 2016, 360.

## Data concerning the relations of late Avar cast belt mounts

In this paper I focused on a single artefact type among the belt mounts, which is quite significant as proved by its geographical spread and frequency. I also investigated the distribution of other artefacts which appear in context with this type, as elements of the same belt set for example. Large belt-ends decorated with ‘Avar type’<sup>44</sup> animal combat scenes, characteristic of the first half of the Late Avar Period<sup>45</sup> are distributed evenly among the Avar sites in the Carpathian Basin (Fig. 2).<sup>46</sup> Considering artefacts in relation<sup>47</sup> with these strap-ends – in case these are not too rare and their frequency allows such an observation – a similar distribution can be documented. As an example a shield-shaped mount<sup>48</sup> (Fig. 3) and a rectangular mount<sup>49</sup> decorated with a palmette (Fig. 4) is shown here. Large belt-ends sometimes appear in belt sets together with certain mount types which have a characteristic regional distribution: for example, ‘Dunacsún type’ mounts<sup>50</sup> decorated with griffins (Fig. 5)<sup>51</sup> principally appear along

- 44 SZENTHE 2013, 147–149, distinguished from the Mediterranean type decoration with standing animals, mostly griffins.
- 45 Spätstufe II: ZÁBOJNÍK 1991, 238; SpA II: DAIM 1987, Abb. 28; SpA II.
- 46 A list can be found in FANCSALSZKY 2007, Map 14, Type 7.
- 47 Scientific literature dealing with Avar belt mounts is not really specific about what exactly belongs to a certain type, especially in the works of Peter Stadler and Gábor Fancsalszky. Authors usually highlight a single element or a combination of a few elements (such as the wings and beak of the griffin or the direction it looks on the mount) and categorize the mounts according to these, see for example STADLER 1990. This paper proposes a more precise classification, according to which the important elements of a type are the components of the artefact, its length width proportion as well as the detailed match of the depicted figure, scene or other kind of ornaments. From this point of view a ‘type’ basically includes artefacts which are in a close genetic relationship regarding manufacture.
- 48 Budapest X-Rákos grave 25 (NAGY 1998, 76, Taf. 71); Budapest XXII-Vöröskereszt u. grave 13 (NAGY 1998, 192, Taf. 132); Čunovo (Dunacsún) grave 54 (SÓTÉR 1895, 100); Devínska Nová Ves (Dévényújfalú) grave 116 (EISNER 1952, Obr. 16); Győr-Téglavető-dűlő grave 652 (FETTICH 1943, 31, XXVI. T. 1–17); Hraničná pri Hornáde-Kechnec (Kehnyec) grave 118 (PÁSTOR 1971, 124–125, Obr. 35, 1–23, 25–26); Komárno-Lodenice (Komárom-Hajógyár) grave 114 (TRUGLY 1993, 201, Taf. XIX); Košice-Šebastovce (Kassa-Zsebes) grave 132 (BUDINSKÝ-KRIČKA – TOČIK 1991, 33, Taf. XIX); Mosonszentjános-Kavicsbánya stray find (unpublished); Mosonszentjános-Kavicsbánya 27 (unpublished); Mödling a.d. Goldenen Stiege grave 440 (DAIM 1977, 14–15); Nové Zámky (Érsekújvár) 232 (ČILINSKÁ 1966, 48–49, Taf. XLIV); Odžaci (Hódság) IV grave 15 (KARMANSKI 1975a, 19, Tab. XVI); Odžaci (Hódság) IV grave 18 (KARMANSKI 1975a, 20, Tab. XIX); Pilismarót-Basaharc grave 151 (FETTICH 1965, 51); Pilismarót-Basaharc grave 218 (FETTICH 1965, 74); Szárazd stray find (KOVÁCS 2001, 199–203, 12–13. kép); Szeged-Csengele-Feketehalom stray find (TÖRÖK 1995, Pl. 7, 12–14); Szeged-Fehértó A grave 70 (MADARAS 1995, 22, Pl. 12); Szeged-Fehértó A grave 300 (MADARAS 1995, 45, Pl. 31); Szeged-Fehértó A grave 323 (MADARAS 1995, 45, Pl. 32); Szőreg B-Községi homokbánya grave 19 (KOREK 1945, 109, X. t); Tiszafüred-Majoros grave 1084 (GARAM 1995, 126, 128, Taf. 147); Tiszafüred-Majoros grave 1245 (GARAM 1995, 148, Taf. 166); Tiszafüred-Majoros grave 1268 (GARAM 1995, 154, Taf. 169); Vrbas-ciglana Polet (Verbász-Polet-téglagyár) grave 76 (NAGY 1971, 203, Tab. XVI); Wien 13-Unter St. Veit stray find (DAIM 1979, 62–66, Taf. 4–5); Zwölfaxing grave 98 (LIPPERT 1969, 141, Taf. 38).
- 49 Čataj (Csatáj) grave 74 (HANULIAK – ZÁBOJNÍK 1982, Tab. I, 4–15); Fót grave 1 (TETTAMANTI 1985, 13. kép); Győr-Téglavető-dűlő grave 740 (FETTICH 1943, 38, XXVIII. t. 18–21); Kisköre-Halastó grave 41 (GARAM 1979, 15–17, Taf. 11); Kisköre-Halastó grave 54 (GARAM 1979, 19, Taf. 13); Kisköre-Halastó grave 111 (GARAM 1979, 24, Taf. 18); Komárno-Lodenice (Komárom-Hajógyár) grave 103 (TRUGLY 1993, 195, Taf. VI); Ladánybene-Fő út stray find (H. TÓTH 1992, 51–52, 8. t.); Lukácsháza-Hegyalja-dűlő grave 8 (KISS 1996, 108–109, 1. t.); Nagypall I-Határi-dűlő grave 16 (KISS 1977, 74, Pl. XXVIII); Szarvas-Grexa-téglagyár grave 227 (JUHÁSZ 2004, 41, Taf. XXIX); Szebény I grave 47 (GARAM 1975b, 78, Fig. 5); Szeged-Fehértó A grave 159 (MADARAS 1995, 31, Pl. 20); Szekszárd-Bogyiszlói út grave 417 (ROSNER 1999, 57, Taf. 29); Szentés-Lapistó grave 93 (CSALLÁNY 1906, 300); Szentés-Nagyhegy grave 3 (CSALLÁNY 1962, 475, Taf. XIX); Žitavska Ton (Zsitvató) grave 31 (ČILINSKÁ 1963, 92, Tab. VII, 19).
- 50 Type 19 or type Leobersdorf grave 71 of Peter Stadler but the list consists of other mounts those are significantly different morphologically (STADLER 1990, 310).
- 51 Budapest X-Rákos grave 25 (NAGY 1998, Taf. 71); Cerević-obala Dunava grave 12 (KARMANSKI 1976,

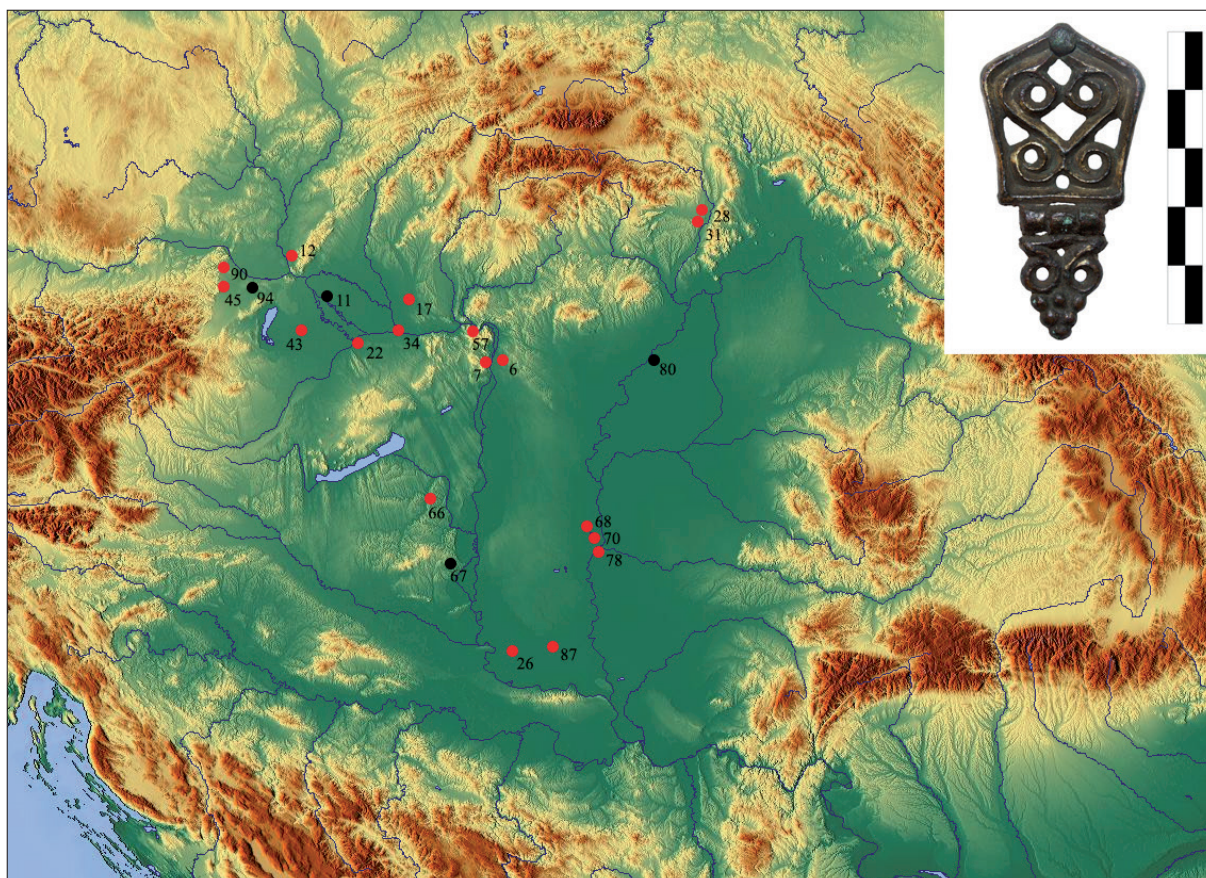


Fig. 3. Shield-shaped belt mounts with an ornament of a simple double foliated scroll (●: in belt sets of various compositions; ●: in belt sets with large strap ends ornamented with animal combat scenes of 'type Avar')

the Transdanubian course of the River Danube; the propeller-shaped mounts consisting of a double row of geometrised scroll ornaments<sup>52</sup> (Fig. 6) as well as the belt-hole guards forming a band-loop (Fig. 7)<sup>53</sup> have a strong Transdanubian, more precisely Northwestern-Transdanubian

T. XVII, 1); Čunovo (Dunacsún) grave 54 (SÓTÉR 1895, 100); Čunovo (Dunacsún) grave 127 (SÓTÉR 1895, 110); Dunapentele (LÁSZLÓ 1935, XX); Győr-Téglavető-dűlő grave 356 (FETTICH 1943, XXII. T.); Ilandža stray find (DIMITRIEVIĆ ET AL. 1962, 18, Tb. XXX, 2); Kékesd grave 184 (KISS 1977, Pl. XXII); Košice-Šebastovce (Kassa-Zsebes) grave 221 (BUDINSKÝ-KRIČKA – TOČIK 1991, Taf. XXII); Leobersdorf-Ziegelei Polsterer grave 71 (DAIM 1987, Taf. 69–71); Romonya I grave 41 (KISS 1977, Pl. XLVII); Sturovo-Obid (Párkány-Ebed, Ökörhálás) grave 8 (TOČIK 1992, Obr. 61, 9–15); Szebény I grave 11 (GARAM 1975, Fig. 3); Szebény I grave 202 (GARAM 1975, Fig. 15); Lébény, grave find (SÓTÉR 1898, 178–180);

52 Áporka-Úrböpuszta grave 20 (BÓNA 1957, 158, XXXV. T.); Edelsthal (Nemesvölgy) grave 77 (SÓTÉR 1898, 210, II. t. 14); Kékesd grave 184 (KISS 1977, 56, Pl. XXII); Kölked-Feketekapu B grave 219 (KISS 2001, 97–98, Taf. 67); Leobersdorf-Ziegelei Polsterer grave 133 (DAIM 1987, 264, Taf. 131–132); Mosonszentjános-Kavicsbánya grave 14 (unpublished); Mödling a.d. Goldenen Stiege grave find (SCHWAMMENHÖFER 1976, 15); Münchendorf grave 35 (BACHNER 1985, 115, Taf. 18); Münchendorf grave 38 (BACHNER 1985, 115–116, Taf. 20).

53 Čunovo (Dunacsún) grave 127 (SÓTÉR 1895, 110); Devínska Nová Ves (Dévényújfalú) grave 524 (EISNER 1952, Obr. 52–54); Dunabogdány site 8/4 grave find (MRT 7, 39. t. 1–13); Edelsthal (Nemesvölgy) grave 207 (SÓTÉR 1898, 218); Edelsthal (Nemesvölgy) unidentifiable (SÓTÉR 1898, IV. t. 15); Győr-Téglavető-dűlő grave 305 (FETTICH 1943, 25, XVII. T. 6–8); Győr-Téglavető-dűlő grave 506 (FETTICH 1943, 31, XXIV. T.); Győr-Téglavető-dűlő grave 545 (FETTICH 1943, 32, XXVII. T.); Győr-Téglavető-dűlő grave 776 (FETTICH 1943, 39, XXIV. T. 1–11); Komárno-Lodenice (Komárom-Hajógyár) grave 114 (TRUGLY 1993, 201, Taf. XIX); Leobersdorf-Ziegelei Polsterer grave 65 (DAIM 1987, 238, Taf. 57); Mosonszentjános-Kavicsbánya grave 227, grave C and stray find (unpublished); Mödling a.d. Goldenen Stiege grave find (SCHWAMMENHÖFER 1976, 15); Münchendorf grave 38 (BACHNER 1985, 115–116, Taf. 20); Öskü-Agyaggödör grave 54 (RHÉ – FETTICH

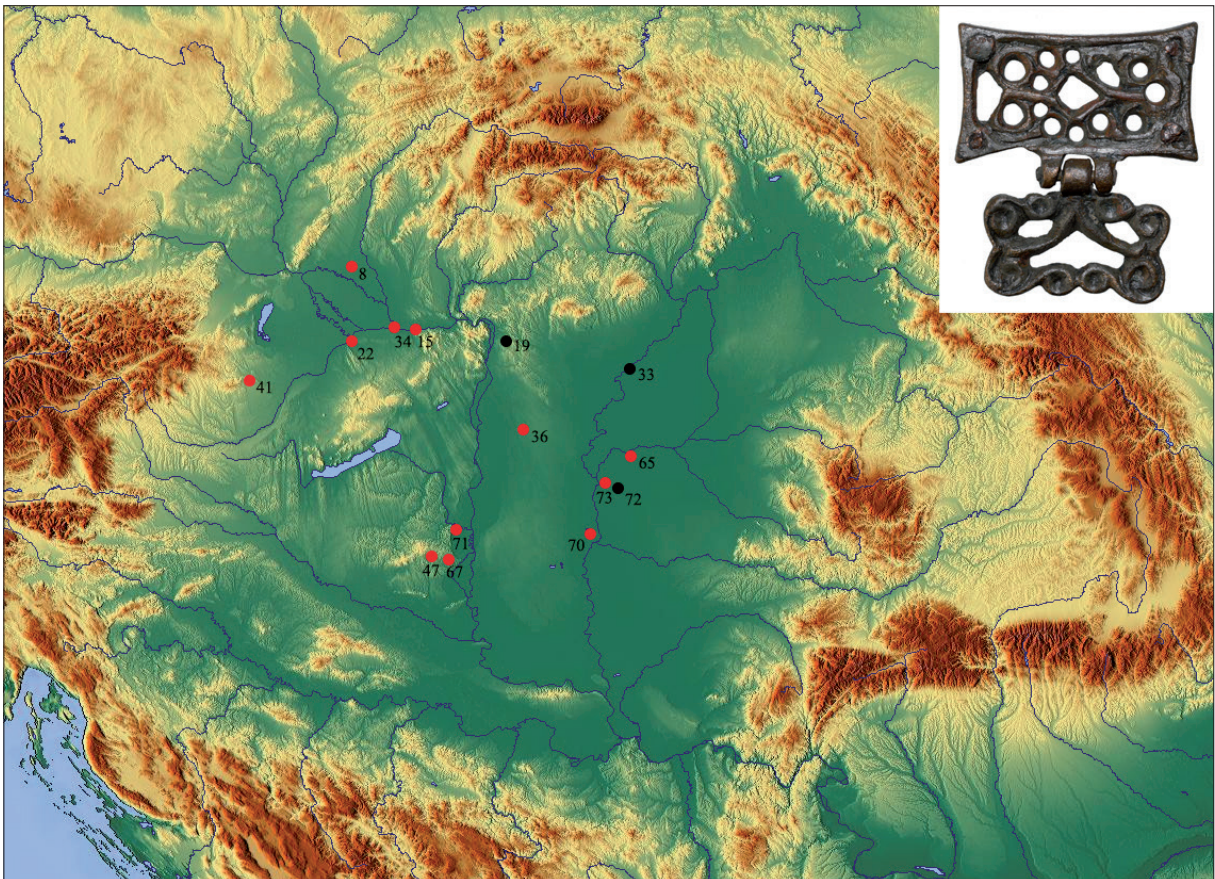


Fig. 4. Rectangular belt mounts with double palmettes (●: in belt sets of various compositions; ●: in belt sets with large strap ends ornamented with animal combat scenes of 'type Avar')

regional character. Contrarily, there is only one artefact type with a regional distribution centered in the Great Hungarian Plain which appears in context with the large strap-ends with animal combat scenes: small, broad shield-shaped mounts decorated with a single foliated scroll<sup>54</sup> (Fig. 8). However, it is not unusual for all of the above-mentioned regional types that a solitary specimen is brought to light well beyond the regional distribution area (see Fig. 8).

While some specimens of the above-mentioned artefact types are found in context with large belt-ends decorated with animal combat scenes, other exemplars are included in belt sets with different types of large belt-ends and mounts. Thus it takes only a few steps to link practically the whole range of artefact types used in the first half of the Late Avar Period into one profuse network of connections. In this network the artefacts of regional character (however with a few specimens uncovered beyond the main distribution area) are linked by artefacts characteristic of the Late Avar Period in general.

1931, 49, Taf. XV); Romonya I grave 31 (KISS 1977, 112, Pl. XLVI); Romonya I grave 41 (KISS 1977, 112, Pl. XLVII); Romonya I grave 95 (KISS 1977, 115, Pl. XLIX); Romonya I grave 116 (KISS 1977, 115, Pl. L); Szébény I grave 194 (GARAM 1975b, 84–85, Fig. 14); Szébény I grave 201 (GARAM 1975b, 85, Fig. 15); Zwölfaxing grave 57 (LIPPERT 1969, 134, Taf. 23); Zwölfaxing grave 98 (LIPPERT 1969, 141, Taf. 38).

54 Edelstal (Nemesvölgy) grave 208 (LOBINGER 2016, Taf. 49); Jánoshida-Tótképuszta grave 6 (ERDÉLYI 1958, 6, II. t. 8–15); Kál grave 9 (HARANGOZÓ – TÓTH 2016, 220, 6. kép); Nyékládháza-Vasútállomás grave 4 (VÉGH 1964–1965, I. T. 17–23); Orosháza-Bónum-téglagyár grave 61 (JUHÁSZ 1995, 25, Taf. IV); Sommerein am Leithagebirge grave XI (DAIM – LIPPERT 1984, 37, Taf. 2); Szeged-Fehértó A grave 319 (MADARAS 1995, 46, Pl. 33); Vrbas-ciglana Polet (Verbász-Polet-téglagyár) grave 121 (NAGY 1971, 209, Tab. XXXIV).



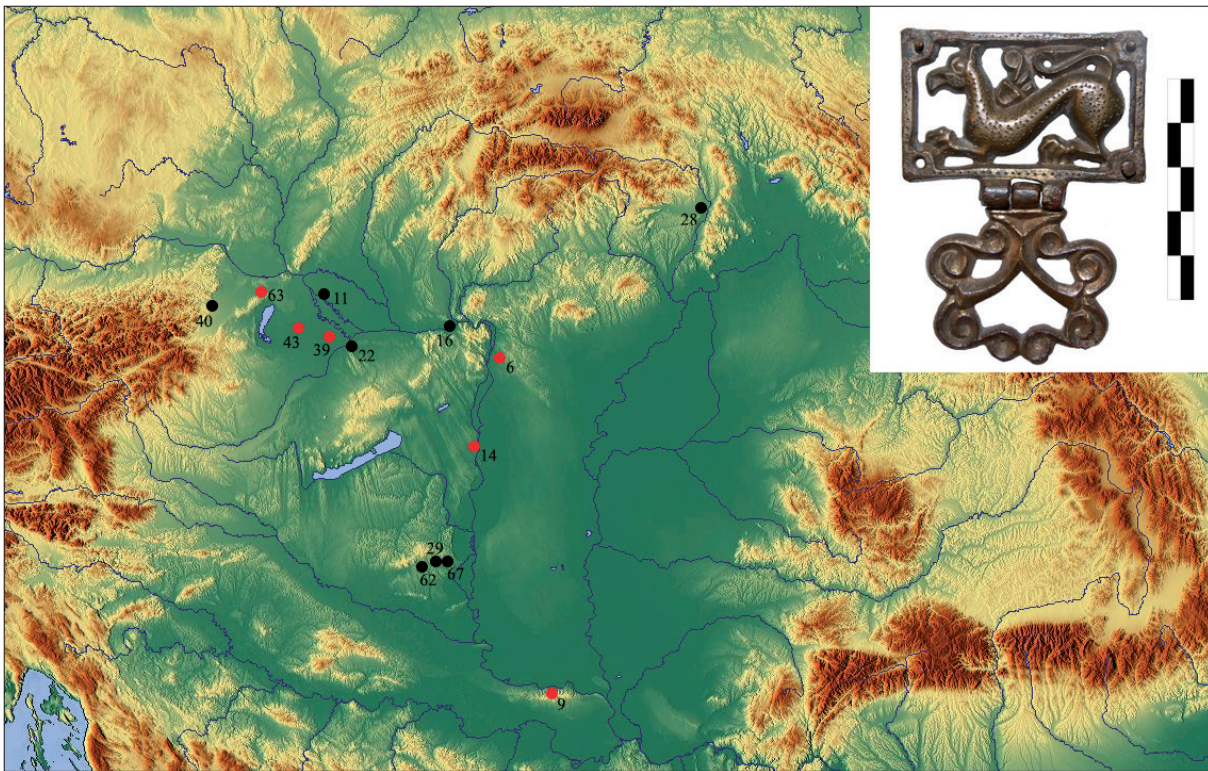


Fig. 5. Rectangular belt mounts with griffins of the 'type Dunacsún' (●: in belt sets of various compositions; ●: in belt sets with large strap ends ornamented with animal combat scenes of 'type Avar')

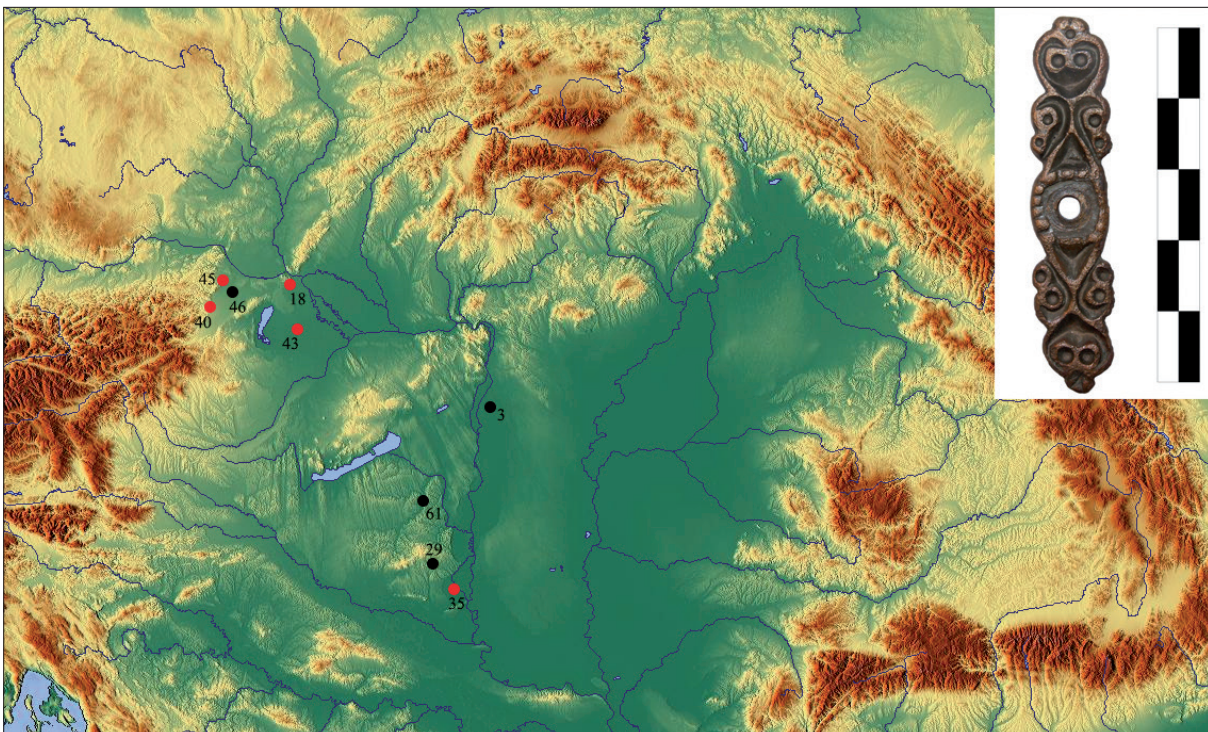


Fig. 6. Propeller-shaped mounts consisting of a double row of geometrised scroll ornaments (●: in belt sets of various compositions; ●: in belt sets with large strap ends ornamented with animal combat scenes of 'type Avar')

The human factor defining the distribution of the belt mount types can be best demonstrated directly through certain cast metal objects, in case of which the correspondence between single pieces is so close that we can be certain of the existence of a model or negative mould, perhaps a ready mount used for standardized production.<sup>55</sup> It was Gábor Kiss who has first drawn attention to the importance of identical cast artefacts in his study concerning belt buckles decorated with griffins.<sup>56</sup> I also found evidences to a connection between the cemeteries of Tiszafüred and Kölked, as well as Tiszafüred and Zamárdi in the form of identical objects (Fig. 9).<sup>57</sup> Duplicates are however a rarity and because of the materials used (clay, wax) as well as the workmanship some differences are detectable even between the pieces produced with the same model.<sup>58</sup> As for a whole group of mounts belonging to the same type, such differences are absolutely common. In my opinion, a 'type', in the proper sense, should only include artefacts with identical morphology and length-width proportions (true for both the object itself and the decoration, but not the size). Therefore, such 'types' can be considered, similarly to identical objects, as evidences of direct contacts on the technological level.<sup>59</sup>

Another phenomenon hinting towards direct connections is the existence of identical belt sets. As in the Late Avar Period belt sets were mostly assembled from different types of mounts,<sup>60</sup> the idea that belt sets consisting of a single type of mounts may come into existence irrespective of each other is highly improbable and can therefore be excluded with great certainty.<sup>61</sup> Implicitly, these are even less frequent than identical objects. The belt sets of Grave 6 at Visznek, Grave 221 at Jánoshida-Tótképuszta and Grave 68 at Szentes-Berekhat were found close to each other,<sup>62</sup> with only a few metal sheet elements to form an unremarkable difference between them. There exists a fourth belt set<sup>63</sup> including a large belt-end of the same type as mentioned before, the mounts of which also show a remarkable similarity to those mentioned above. There is however

55 SZENTHE 2012, 66–67.

56 KISS 2001, 222.

57 SZENTHE 2012, 63, Abb. 3. 1–4.

58 As part of my survey I made measurements of several mounts belonging to individual belt sets. I found that in all cases there were size differences between mounts identical in all other respects. Regardless of the full size of the mounts these differences may exceed 1–1,5 millimetres, even in the case of the usually very small mounts of the side-straps (the presentation of the ever growing database which served as a basis for these observations exceeds the limits of this paper). Similar differences show in the weight of the mounts. Still it should be emphasized that all formal details of these mounts point towards a production in the same model.

59 See for example the resemblance between the mounts with griffin decoration from Tiszafüred-Majoros grave 1003 and the grave unearthed at Kenderes-Bánhalom. The proportions of the mounts within these two sets, as well as the style of workmanship (punched griffins of flat surface), as well as the shape of the griffins correspond greatly. However, the griffins from Bánhalom are 4,5–5% smaller than the ones from Tiszafüred, which are also much thicker. These differences can be easily explained by the activity of a single workshop. There is a number of such examples within the same cemetery, for example during our research of the Tiszafüred graveyard, together with Csaba Bíró we found identical mounts with griffins in several graves (BÍRÓ – SZENTHE 2011, Fig. 6 griffins with scythe-shaped wings from the graves of Tiszafüred). In accordance with the observations of Gábor Kiss, several more examples could be mentioned, where, although I did not make a precise comprehensive study, the exact sameness of form (beyond mere typological correspondence) can at least be observed regarding the size, proportions and the front side of the mount.

60 SZŐKE 2001, 106–107.

61 Seemingly the mount sets with geometric circular-lobe decoration, datable to the „Spätstufe“ III or SpA IIIa periods, that is the second half of Late Avar Era, comprise an exception to this rule. However, in this period the rate of standardization is very high, while the range of mount types used for the decoration of belts is quite narrow. Thus this phenomenon can be more likely the result of standardized production instead of the uniform modelling of individual belt sets.

62 BREUER 2005, Abb. 48.

63 Tiszafüred-Majoros, grave 363 (GARAM 1995, Taf. 85).

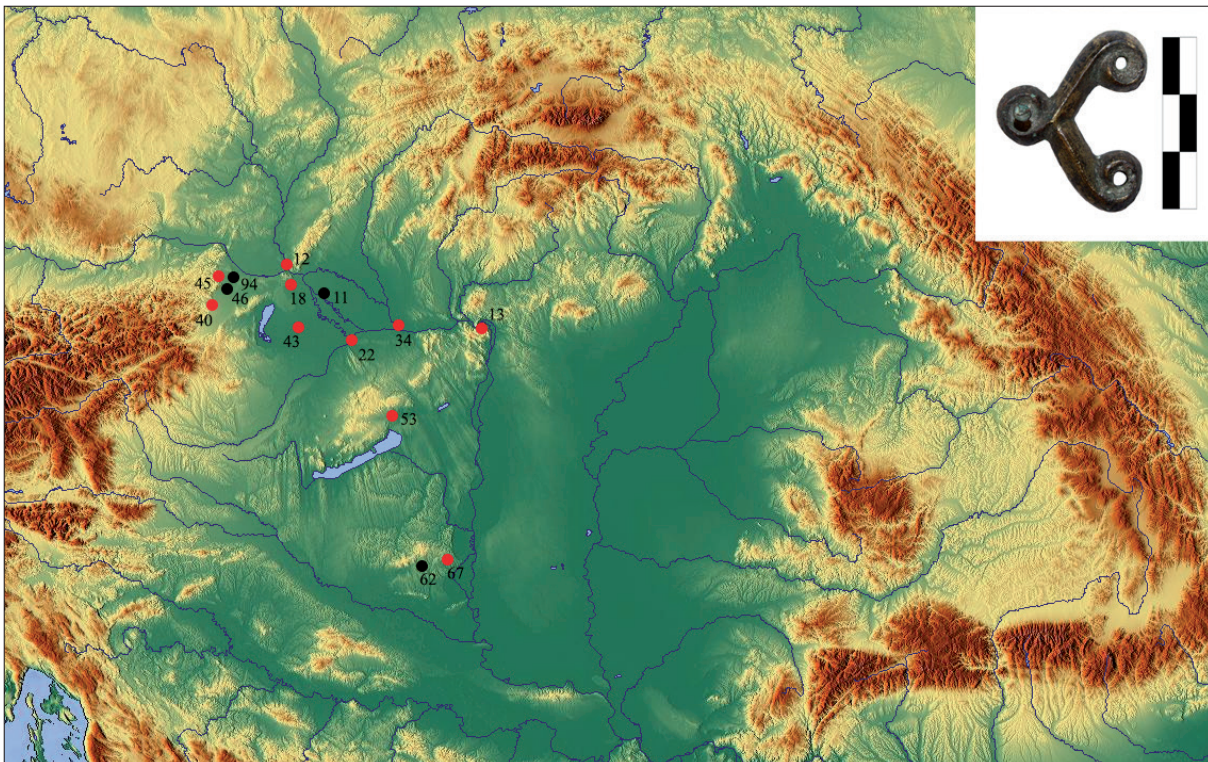


Fig. 7. Belt-hole guards forming a band-loop (●: in belt sets of various compositions; ●: in belt sets with large strap ends ornamented with animal combat scenes of 'type Avar')

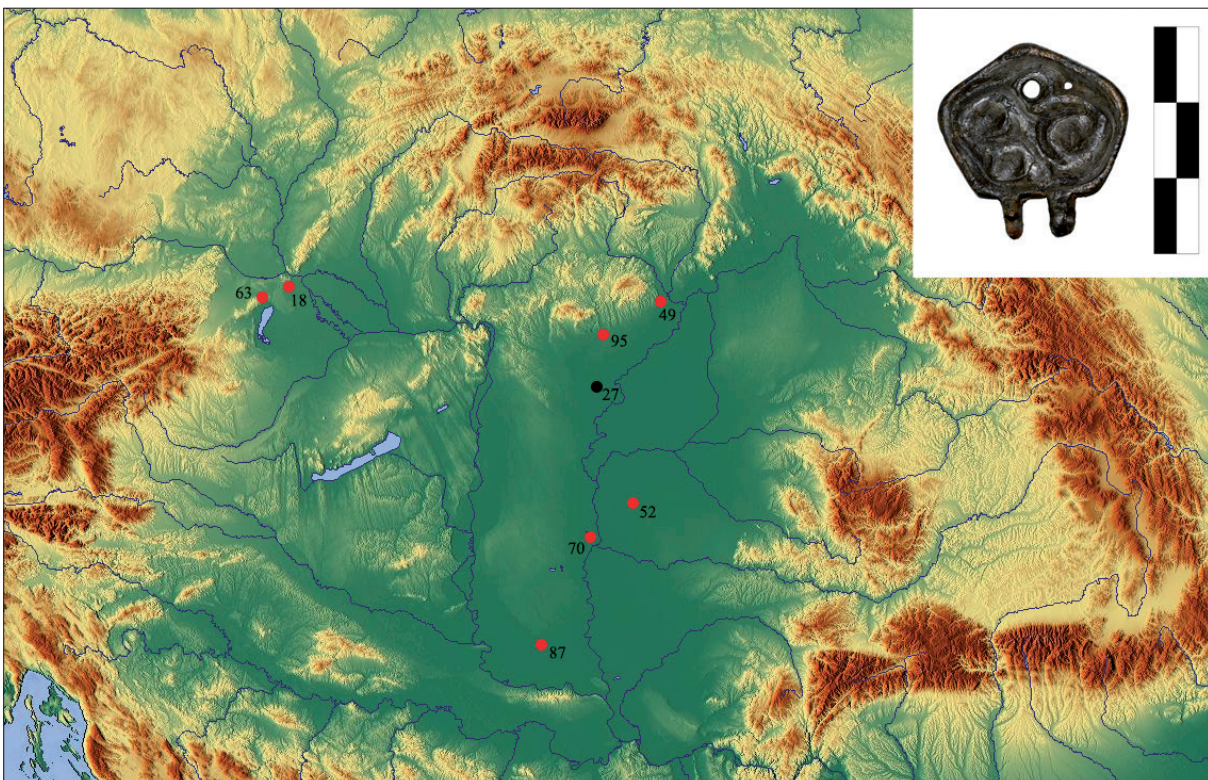


Fig. 8. Small, broad shield-shaped mounts decorated with a single foliated scroll (●: in belt sets of various compositions; ●: in belt sets with large strap ends ornamented with animal combat scenes of 'type Avar')

a great distance between the find spots of a recently published belt set from Kál (Heves County)<sup>64</sup> and one from Nemesvölgy (Edelstahl, Lower Austria)<sup>65</sup>, other examples being the belt sets from Sajószentpéter (Borsod County)<sup>66</sup> and Kiskassa (unpublished, Baranya County).<sup>67</sup>

Curiously, during my recent research I have not yet found any cemeteries with such corresponding belt sets, however, in some cases similar sets come to light in considerable geographic distance from each other. May it be a careful theory though, the presence of these objects beyond mere typological resemblance, and the existence of a few identical belt sets suggests (even with respect to the uncertainty characterising archaeological research) that the similarities between single mounts are not (or not only) the results of short-distance contacts between communities living close to one another, but - maybe even more - certify a long-distance system of contacts which ensured the cohesion of society in the Late Avar Period.

Who were the people sustaining this interregional system of contacts? Both the catchment area of certain workshops,<sup>68</sup> or closer contacts between groups with the same origin and culture,<sup>69</sup> or less likely the effect of trade can be supposed here. Trade, that is, the circulation of mounts irrespective of the manufacturer or the workshop would assume a relatively high level of division of labour within Avar society: and, people usually trade with such wares which are not available (cannot be produced) at a certain place. But, this is surely not true in case of the technologically simple cast mounts. Although in the current stage of research the possibility of trade cannot be excluded especially due to the wide geographical spread of average quality artefact types, but it would also require a certain infrastructure, such as regular fairs or travelling merchants. As to the latter, although their existence is possible again, there is no evidence as yet of their activity in the Avar Period Carpathian Basin perhaps due to the lack of targeted studies.<sup>70</sup>

The most plausible answer, not excluding but incorporating the above-mentioned three factors, would be the horizontal and vertical communication of persons or groups belonging to the elite. The wide-range system of contacts nurtured by the latter was undoubtedly among the components sustaining the Late Avar power structure.

## **Summary: ornate belts as sources of power networks in the Carpathian Basin**

The majority of Late Avar belt mount types can be considered local phenomena of the Carpathian Basin.<sup>71</sup> On the contrary, types identified as of Byzantine origin by Falko Daim

64 Grave 9, HARANGOZÓ – TÓTH 2016, 220, 6. kép.

65 Grave 208, LOBINGER 2016, Taf. 49.

66 Stray finds from a grave, VÉGH 1963, III. t. 8–14, 17.

67 Herewith I thank dr. Erzsébet Nagy (JPM Pécs) for presenting me this find as well as her permission to mention it in this study.

68 Mentioning the catchment areas of workshops: KISS 2001, 222; describing workshop circles: STADLER 1990, 316 and FANCSALSZKY 2007, 117–118; proposing the possibility of mobile workshops: SZENTHE 2012, 70–71.

69 The connection between the Tiszafüred cemetery and those in Transdanubia, respectively Southern Transdanubia does not only manifest itself in a few corresponding mounts, but also in the elements belonging to the female attire (disks, belt pendants, earrings with drawn-up sheet globules) (see VIDA 2009b; GARAM 2011, 72–84). It is quite possible that direct personal contacts (either person-to-person or group-to-group) between the communities of Zamárdi, Kölked and Tiszafüred lie behind this parallelism.

70 In contrast to the markets and fairs of the contemporary Byzantine and Carolingian world: HALDON 2000; ADAM 1996, 183–186.

71 About the appearance of certain types: FANCSALSZKY 2007; STADLER 1990. Analysing the problem: SZENTHE 2016.

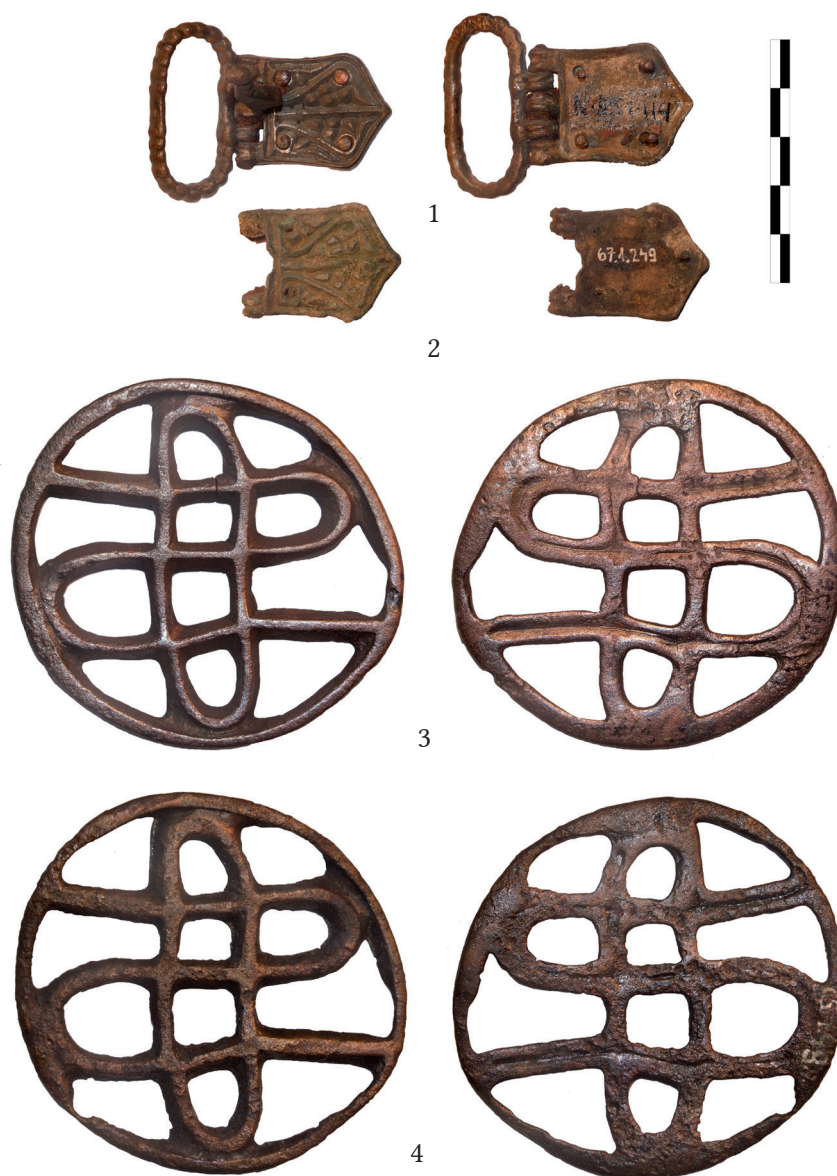


Fig. 9. Identical objects. 1 – Kölked-Feketekapu, grave 419, 2 – Tiszafüred-Majoros, grave 89, 3 – Zamárdi-Rétiföldek, grave 2177, 4 – Tiszafüred-Majoros, grave 1119.

in his epoch-making study published in 2000,<sup>72</sup> are totally or almost totally absent in the central region of the Carpathian Basin (Fig. 10). It seems that the ‘Avar belt’ is a comprehensive factor creating a so-to-say visual cohesion over the whole territory of the Avar sphere of power. Behind its appearance a system of distribution can be assumed the expansion of which corresponded to the limits of the Avar sphere of interest. In my opinion this is the factor which is still being expressed in Hungarian research by emphasizing the peculiar ‘Avar’ character of Avar belts with mounts, however there is no real inconsistency with the existence of Byzantine contacts, proven by many relevant studies. However, due to the egalitarianism mainly apparent in the workmanship<sup>73</sup> and the raw materials<sup>74</sup>, still more in the incredible variety of typological combinations, as well as the lack of documented quality

72 DAIM 2000, Karte 3.

73 BÁLINT 2010, 148–150; SZENTHE 2012.

74 See the material analyses at KÖLTŐ 1982; DAIM 1987, 167–168; WOBRAUSCHEK ET AL. 1987, 45–56.

groups – „*Stufen*“ –, the ornate belt in itself must have been unsuitable to express complex hierarchical relations in the society.

Accordingly, wearing and receiving an ornate belt as a grave good must have had a message in itself: thus, the group of people wearing ornate belts can be contrasted with those not entitled to it. Most probably the ornate belt was a sign of a certain legal status, which is however hard to define due to the lack of written sources.<sup>75</sup>

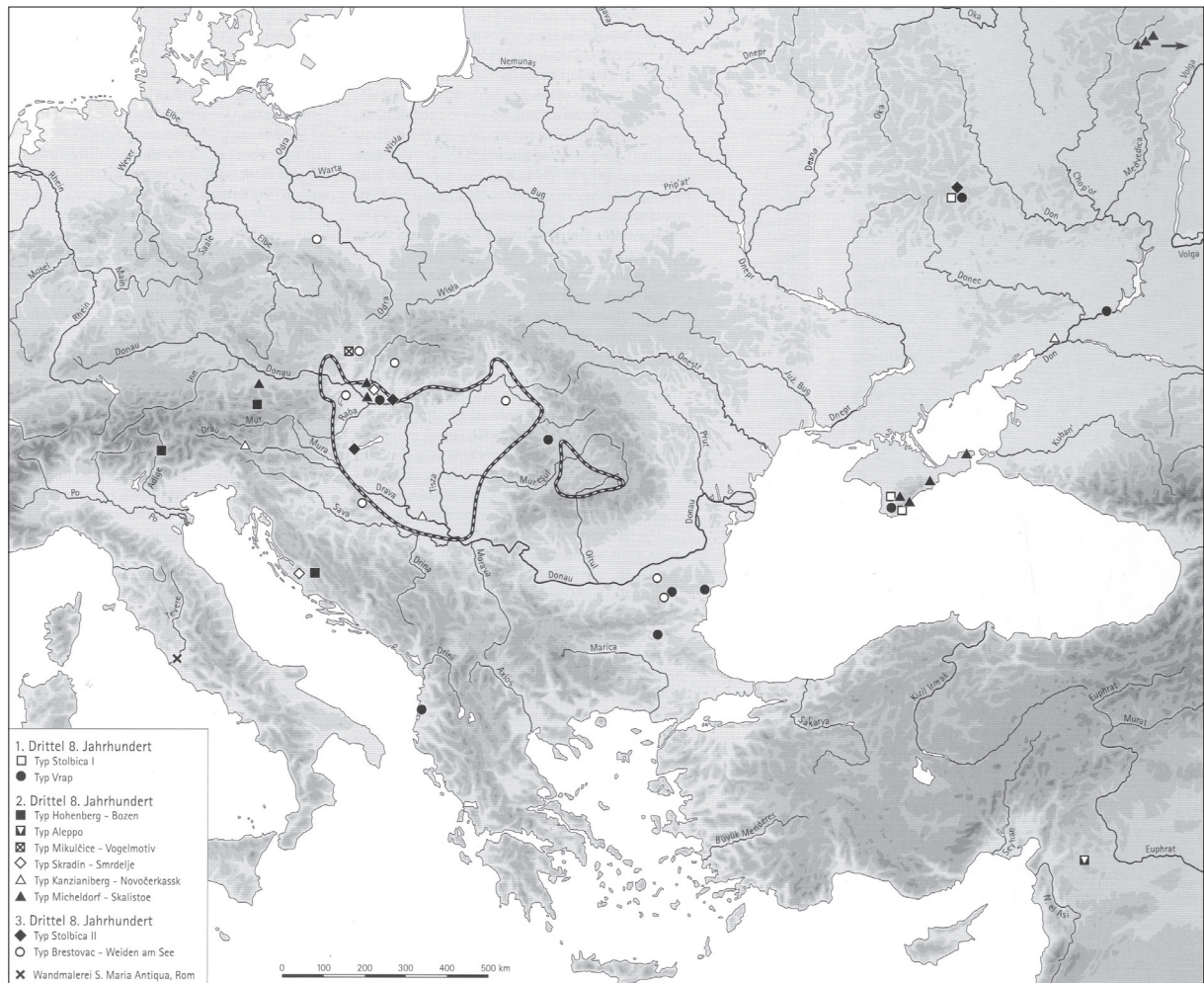


Fig. 10. 'Byzantine-type' buckles and belt ornaments of the 8<sup>th</sup> century AD at the north-eastern fringes of the Mediterranean (after DAIM 2000, Karte 3)

The distribution maps imply that the distribution of the many belt mount types all over the Avar settlement area can best be interpreted to the analogy of the spatial pattern of the Bronze Age depots analysed by Gábor Váczi representing a scale-free network.<sup>76</sup> This distribution system rooted in the hierarchical relations of Avar power. In the light of the distribution of certain types, members could most probably obtain an ornate belt through a 'prestige chain network'-type of distribution system. Following this idea further and still being strictly deductive, the radius of a workshop could only partially influence the distribution of ornate belts: that is, depending on how many people it could reach in a certain region

75 See note no. 42.

76 BARABÁSI 2016, 133–147; for the application of the method in archaeology see VÁCZI 2014.

and what social rank (with according needs) they would represent. The fact that no two identical belt sets, probably manufactured together, tend to appear in the same cemetery may be another (indirect) effect of a system regulated from the top of the social hierarchy. The determining factor of the distribution of types of Avar ornate belts was the customer himself, who, depending on his power, influence and status in Avar hierarchy could reach craftsmen of high or lesser quality, or – I admit my theory may be really ambiguous here – the raw materials as well as the source of forms which appear on belt mounts.

Referring back to the above-mentioned study of Falko Daim: I believe that the Byzantine influence discovered by him reached the Avar ‘users’ through this filter. For a certain group of people a Byzantine form (or, in my opinion, a form widely used by members of the contemporary European elites) could represent prestige as an embodiment of contacts between elites. On lower levels within the local Avar social hierarchy this same form would be perceived as the representation of the social standing of its owner, his relation to the Avar elite.

The theory on belt mounts first suggested by Gábor Kiss<sup>77</sup> became widely accepted in Hungarian research. According to this, the details and decoration of the belt mounts had no actual importance due to the small size of the motifs and the mounts themselves, thus it was only the colour of the mounts – gilded, tinned or the bare colour of bronze – that could impress a person looking at an ornate belt from some distance.

I believe however that within the Avar society and elite, where cohesion was created through several occasions of close personal contact such as feasts, conclaves, gatherings – perhaps the above-mentioned ‘Hring’ served as a location for such events –, people present could very well notice such details. For example, at the aforesaid events virtually anyone could have had the opportunity to observe closely the belt mounts of the person who once wore the ornate belt discovered at Kiskundorozsma, maybe even one-by-one, as well as his attire, other jewels and precious belongings. This way they could assess the social standing and importance of a person, as well as his social relationships.

## Perspectives on the chronology of the Late Avar Period

As a last step of the reasoning we come to the point where the Avar ornate belt can be considered suitable for chronological observations. We are most probably right to think that within a society, belonging to a privileged group of people and the related identity necessitated continuous verification.<sup>78</sup> The dynamics of socio-political relational networks presumably required people to continuously revise their status and relationships. This is the framework in which the variability of mount forms as well as the style groups distinguishable within the forms and decorations of Late Avar belt mounts can be interpreted. According to the above-mentioned theory a new ornate belt (or one which at least represents a current style) defines the person who wears it as someone who has an active role in the system of distribution, who is relatively close to power and can access certain resources, and after all reflects the potency of its owner or his community. Accordingly, Gábor Kiss stated that full sets with unique forms and features are quite frequent in graves of personalities

<sup>77</sup> Kiss 1995, 99.

<sup>78</sup> About the way how material culture expresses continuously redefined identities by changing forms: HODDER 1989.

buried with weapons and artefacts made of precious metals as well as in the case of gilded bronze belt sets.<sup>79</sup> Of course there are counter-examples too: old sets or sets containing mounts from different morphological and chronological horizons may hint to the exclusion of the community from active ‘prestige-communication’. This way Falko Daim was able to distinguish a late horizon within the SpA III phase at the Leobersdorf cemetery (SpA IIIb),<sup>80</sup> characterized by the mixed use of mounts typical of earlier chronological phases. The same phenomenon was observed at the Tiszafüred cemetery by Éva Garam as well.<sup>81</sup>

Even beside the proven chronological background of the phenomenon it apparently shows a frequent occurrence in the case of graves situated at the fringes of cemeteries or grave groups,<sup>82</sup> or on belts worn by members of communities which must have been marginal to the Avar power network (sometimes in a geographical sense too). Situated at the southeastern borders of the territory dominated by the Avars, the graves of the Nagylak cemetery<sup>83</sup> included belt sets which are perfect examples of the above-mentioned problem. The phenomenon was so significant that it even made the researchers publishing the site question the whole Late Avar chronological framework because of it.<sup>84</sup> Similarly in the case of the mounts found at Zalaegerszeg-Ola (Southwestern margin of the Avar settlement area), B. M. Szőke dated the creation of the whole ‘set’ to the last period of the Avar culture.<sup>85</sup> However, the broad shield-shaped mount as well as the longer small strap-end, which attributes can be dated to the „*Spätstufe IIb*“ according to the system J. Zábójník. Only the squat, one-sided small strap-end originates without doubt from the end of the Late Avar Period.<sup>86</sup> Typically, in the scarce find material from the Nyírség area where settlement only became denser at the end of the Avar Period<sup>87</sup> and we only know of a few belt sets, the proportion of sets including mounts from mixed time periods<sup>88</sup> as well as ones with repaired pieces<sup>89</sup> is quite high.<sup>90</sup> However, the chronological setting of the Nyírség finds in the latest phase of the Avar Period mostly cannot be verified due to the lack of artefacts with solid dating. Thus, although the phenomenon is at least partially characteristic of the end of the Late Avar Period, we neither can simply exclude the influence of social hierarchy in general.

79 KISS 1995, 100.

80 DAIM 1987, 45–49.

81 GARAM 1995, 416–420.

82 One of the most spectacular examples are graves 147, 150, 155 and 156 of the Kiskőrös-Város-alatt cemetery. They are situated at the northeastern periphery of the graveyard, where, in contrary to other parts of the cemetery, the burials were not robbed (HORVÁTH 1935, Taf. XXX–XXXI). Based on the horizontal stratigraphy of the cemetery, it is obvious that in this case chronological reasons stand behind the phenomenon.

83 Unfortunately, this graveyard is only partially excavated.

84 COCIŞ – GÁLL – URÁK 2014, 57–59.

85 SZŐKE 2001, 105, Abb. 1.

86 See parallels of the shape at ZÁBOJNÍK 1991, Taf. 24, types 108–116.

87 ISTVÁNOVITS 2003, 249–254.

88 See the three graves in Tiszaeszlár-Kunsírpárt (CSALLÁNY 1958, XXIV–XXV. T.); Kemece-Sarvay-tag grave 5 (CSALLÁNY 1958, XXIV. T. 28–29).

89 Grave 7 of Tiszalök-Hajnalos (CSALLÁNY 1958, XXV. T. 16–17).

90 On the contrary to the previously mentioned, the only seemingly intact belt set was found in grave no. 7 at Kemece (CSALLÁNY 1958, XXV. T. 1–6) I would like to thank Eszter Istvánovits for her permission of studying the finds.



## References

- ADAM 2002: *Archäologische Denkmäler der Awarenzeit im Mitteldonaubecken*. Varia Archaeologica Hungarica 2. Budapest.
- ADAM, H. 1996: *Das Zollwesen im fränkischen Reich und das spätkarolingische Wirtschaftsleben. Ein Überblick über Zoll, Handel und Verkehr im 9. Jahrhundert*. Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte 126. Stuttgart.
- BACHNER, M. 1985: Das awarische Gräberfeld von Münchendorf, Niederösterreich. In: FRIESINGER, H. – DAIM, F. (eds.): *Die Bayern und ihre Nachbarn* 2. Wien, 9–122.
- BÁLINT, Cs. 2010: *Der Schatz von Nagyszentmiklós. Archäologische Studien zur frühmittelalterlichen Metallgefäßkunst des Orients, Byzanz und der Steppe*. Varia Archaeologica Hungarica 16b. Budapest.
- BALOGH, Cs. 2016: *Régészeti adatok a Duna–Tisza közi avarok történetéhez (The history of the Avars in the Danube–Tisza interfluvium as reflected in the archaeological record)*. Studia ad Archaeologiam Pazmaniensia 6. Budapest.
- BARABÁSI, A. L. 2016: *A hálózatok tudománya*. Budapest.
- BÁRDOS, E. – GARAM, É. 2014: *Das awarenzeitliche Gräberfeld in Zamárdi-Rétiföldek*. Monumenta Avarorum Archaeologica 10, Budapest.
- BÍRÓ, Cs. – SZENTHE, G. 2011: Öntéstechnikai vizsgálatok késő avar kori bronztárgyakon. Sorozatok modellezése és sokszorosítása (Investigations of Casting Techniques of Bronze Artefacts from the Late Avar Period. Modelling and Production of Serial Pieces). In: TÓTH, E. – VIDA, I. (eds.): *Corolla Museologica Tibor Kovács Dedicata*. Budapest 2011, 155–174.
- BÓNA, I. 1957: Az úrbópusztai avar temető. *Archaeologiai Értesítő* 84, 155–174.
- BREUER, E. 2005: *Byzanz an der Donau. Eine Einführung in Chronologie und Fundmaterial zur Archäologie im Frühmittelalter im mittleren Donaauraum*. Tettngang.
- BUDINSKÝ-KRIČKA, V. – TOČIK, A. 1991: *Šebastovce. Gräberfeld aus der Zeit des awarischen Reiches*. Nitra.
- COCIȘ, S. – GÁLL, E. – URÁK, M. 2016: The Periphery of the Centre? The Late Avar Cemetery Part at Nädlac (Germ.: Nadlak; Hung.: Nagylak; Slov.: Nadlak). *Archaeologia Bulgarica* XX, 1–75.
- COSMA, C. – DOBOS, A. – RUSTOIU, G. T. – RUSTOIU, A. – OARGĂ, O. 2013: *Războinici în Trasilvania din epoca avară*. Cluj-Napoca.
- ČILINSKÁ, Z. 1966: *Slawisch-awarisches Gräberfeld in Mové Zámky*. Bratislava.
- CSALLÁNY, D. 1958: Szabolcs–Szatmár megye avar leletei (Awarische Funde des Komitats Szabolcs–Szatmár). *A nyíregyházi Jósza András Múzeum Évkönyve* I, 31–87.
- CSALLÁNY, D. 1962: Der awarische Gürtel. *Acta Archaeologica Academiae Scientiarum Hungaricae* 14, 444–480.
- CSALLÁNY, G. 1906: Régibb középkori temető Szentes határában. *Archaeologiai Értesítő* XXVI, 292–302.
- DAIM, F. 1977: Awarische Altfunde aus Wien und Niederösterreich. *Mitteilungen der Anthropologischen Gesellschaft in Wien* CIX, 55–101.
- DAIM, F. 1987: *Das awarische Gräberfeld von Leobersdorf, Niederösterreich*. Studien zur Archäologie der Awaren 3. Wien.
- DAIM, F. 1996: Archäologie der Awaren. In: *Reitervölker aus dem Osten. Hunnen+Awaren*. Begleitbuch und Katalog. Eisenstadt, 199–202.

- DAIM, F. 2000: „Byzantinische“ Gürtelgarnituren des 8. Jahrhunderts. In: DAIM, F. (ed.): *Die Awaren am Rand der byzantinischen Welt*. Monographien zur Frühgeschichte und Mittelalterarchäologie 7. Innsbruck, 77–204.
- DAIM, F. – LIPPERT, A. 1984: *Das awarische Gräberfeld von Sommererin am Leithagebirge, NÖ*. Studien zur Archäologie der Awaren 1, Wien.
- DIMITRIEVIĆ, D. – KOVAČEVIĆ, J. – VINSKI, Z. 1962: *Seoba Naroda. Arheološki nalazi jugoslovenskog Podunavlja*. Zemun.
- EISNER, J. 1952: *Devínská Nová Veš*. Bratislava.
- ERDÉLYI, I. 1958: *A jánoshidai avarkori temető*. Régészeti Füzetek II/1. Budapest.
- FANCSALSZKY, G. 2007: *Állat- és emberábrázolások késő avar kori öntött bronz övvereteken (Tier- und Menschendarstellungen auf den spätawarenzeitlichen gegossenen Gürtelbeschlägen)*. Opitz Archaeologica I, Budapest.
- FARKAS, S. 1892: *Népvándorláskori temető Mártélyon. Hódmezővásárhely határában*. *Archaeologiai Értesítő* XI, 413–426.
- FETTICH, N. 1943: *Győr története a népvándorláskorban*. Győr.
- FETTICH, N. 1965: *Awarenzeitliches Gräberfeld von Pilismarót-Basaharc*. *Studia Archaeologica* 3, Budapest.
- FLECKENSTEIN, J. 1993: *Märzfeld*. In: *Lexikon des Mittelalters*. 6. München – Zürich 1993, 361.
- GARAM, É. 1975: *The Szebény I–III. Cemeteries*. In: KOVRIG I. (ed.): *Avar Finds in the Hungarian National Museum. Cemeteries of the Avar period (568–829) in Hungary* 1. Budapest, 49–120.
- GARAM, É. 1979: *Das awarenzeitliche Gräberfeld von Kisköre*. *Fontes Archaeologici Hungariae*. Budapest.
- GARAM, É. 1995: *Das awarenzeitliche Gräberfeld von Tiszafüred*. *Cemeteries of the Avar Period (567–829) in Hungary*. 3. Budapest.
- GARAM, É. 2011: *Az avar kori nők csüngős övű viselete a 6–8. században (Gehängegürteltracht der awarenzeitlichen Frauen im 6.–8. Jahrhundert)*. *Archaeologiai Értesítő* 136, 63–93.
- GÁLL, E. 2014: *A periférikus 10. századi Erdélyi-medence. Néhány gondolat a 10. századi „magyar hatalmi hálózat” erdélyi hódításáról (The Peripheral Transylvania: Thoughts on the Expansion of the „Hungarian Power System” in Transylvania in the 10th century)*. *Korunk* 8, 82–126.
- HAJNAL, Zs. 2006: *Későantik jellegű kerámia a Kölked-feketekapui avarkori telepről (Keramik spätantiken Charakters aus der awarenzeitlichen Siedlung Kölked-Feketekapu)*. *Communicationes Archaeologicae Hungariae*, 437–480.
- HAJNAL, Zs. 2009: *Házak a kölked-feketekapui avar kori telepen (Häuser in der awarenzeitlichen Siedlung Kölked-Feketekapu)*. *Archaeologiai Értesítő* 134, 91–116.
- HAJNAL, Zs. 2013: *Kora avar kori pecsételt díszű kerámia Kölkeden (Frühawarenzeitliche stempelverzierte Keramik aus Kölked)*. *Archaeologiai Értesítő* 138, 175–211.
- HALDON, J. 2000: *Production, distribution and demand in the Byzantine World, c. 660–840*. In: HANSEN, I. L. – WICKHAM, C. (eds.): *The Long Eighth Century. The Transformation of the Roman World* 11. Leiden – Boston – Köln, 225–264.
- HANULIAK, M. – ZÁBOJNIK, J. 1982: *Pohrebisko zo 7.–8. stor. V Čataji, okr. Bratislava-vidiek*. *Archeologické Rozhľedy* 34, 492–503, 583–588.
- HARANGOZÓ, G. – TÓTH, Z. 2016: *A káli avar kori temető (The avar cemetery in Kál)*. *Az Egri Dobó István Vármúzeum Évkönyve* 2016, 214–240.

- HENNING, J. – BALABANOV, T. – MILO, P. – ZIEMANN, D. 2007: Khan Omurtag's stone palace of AD 822: a "modernized" eighth century timber fort. In: HENNING, J. (ed.), *Post-Roman Towns, Trade and Settlement in Europe and Byzantium*. Vol. 2. Byzantium, Pliska, and the Balkans. Millennium-Studien 5, Berlin–New York, 433–440.
- HODDER, I. 1989: *The Meanings of Things. Material Culture and Symbolic Expression*. Cambridge.
- HORVÁTH, T. 1935: *Az üllői és a kiskőrösi avar temető (Die awarischen Gräberfelder von Üllő und Kiskőrös)*. Archaeologia Hungarica XIX. Budapest.
- ISTVÁNOVITS, E. 2003: *A Rétköz honfoglalás és Árpád-kori emlékényaga*. Nyíregyháza.
- JUHÁSZ, I. 1995: *Awarenzeitliche Gräberfelder in der Gemarkung Orosháza*. Monumenta Avarorum Archaeologica 1. Budapest.
- JUHÁSZ, I. 2004: *Das awarenzeitliche Gräberfeld in Szarvas-Grexa-téglagyár, FO 68*. Monumenta Avarorum Archaeologica 7. Budapest.
- KARMANSKI, S. 1975: Nalazi iz perioda Seobe naroda u okolini Odžaka (lokalitet Odžaci IV – avar-slovenska nekropola). *Amaterska Muzeološka Jugozapadne Bačka*. Odžaci, 1–12.
- KARMANSKI, S. 1976: Još nekoliko nalaza iz perioda seobe naroda koji se nalaze u arheološkoj zbirci u Odžacima. *Amaterska Muzeološka Jugozapadne Bačka*. Odžaci, 1–8.
- KISS, A. 1977: *Avar Cemeteries in County Baranya*. Cemeteries of the Avar Period (568–829) in Hungary 2. Budapest.
- KISS, A. 1992: Germanen im awarenzeitlichen Karpatenbecken. In: DAIM, F. (ed.): *Awarenforschungen I*. Studien zur Archäologie der Awaren 4. Wien, 35–134.
- KISS, A. 1996: *Das awarenzeitlich gepidische Gräberfeld von Kölked-Feketekapu A*. Monographien zur Frühgeschichte und Mittelalterarchäologie 2. Studien zur Archäologie der Awaren 5. Innsbruck.
- KISS, A. 2001: *Das Awarenzeitliche Gräberfeld in Kölked-Feketekapu B*. Monumenta Avarorum Archaeologica 6. Budapest.
- KISS, G. 1995: A késői avar aranyozott övdíszek (Die spätawarenzeitlichen vergoldeten Gürtelbeschläge). *Somogyi Múzeumok Közleményei* 11, 99–126.
- KISS, G. 1996: A lukácsházi avar temető 8. számú lovassírja. A késő avar tausírozott vasfalerák. *Savaria* 22, 107–143.
- KISS, G. 1997: A Keszthely-dobogói avar kori temető (Das awarische Gräberfeld von Keszthely-Dobogó). *Zalai Múzeum* 8, 115–153.
- KNAUT, M. 1994: Goldblattkreuze und andere Kreuzzeichen. Gedanken zu einer süddeutsch-italischen Beigabensitte. In: C. DOBIAT (ed.): *Festschrift für O.-H. Frey zum 65. Geburtstag*. Marburger Studien zur Vor- und Frühgeschichte 16. Marburg, 317–330.
- KOREK, J. 1943–1944: A Szentes-kajáni avarkori temető. *Dolgozatok XIX (1943)* 1–129.
- KOREK, J. 1945: Két Szeged környéki avar temető. *Folia Archaeologica* V, 102–116.
- KOVÁCS, F. 2001: A szárazdi avar leletek (Die awarenzeitlichen Funde von Szárazd). *Communicationes Archaeologiae Hungaricae* 2001, 183–215.
- KÖLTŐ, L. 1982: Avar kori bronztárgyak röntgenemissziós analízise (X-Ray emission analysis of bronze objects from the Avar age). *Somogyi Múzeumok Közleményei* V, 5–68.
- LÁSZLÓ, GY. 1935: *Adatok az avarkori műipar ó-keresztény kapcsolataihoz*. Budapest.
- LIPPERT, A. 1969: *Das awarenzeitliche Gräberfeld von Zwölfaxing in Niederösterreich*. Prähistorische Forschungen 7. Wien.

- LOBINGER, CH. 2016: *Das awarenzeitliche Gräberfeld von Edelsthal (Nemesvölgy) in Burgenland. Die Ausgrabungen Ágost Sötérs von 1884 bis 1887*. Universitätsforschungen zur prähistorischen Archäologie 288. Bonn.
- MADARAS, L. 1995: *The Szeged-Fehértó A and B Cemeteries*. Das Awarische Corpus – Avar Corpus Füzetek III. Debrecen – Budapest.
- MRT 7: *A budai és a szentendrei járás*. In: TORMA, I. (szerk.): Magyarország régészeti topográfiája 7. Pest megye régészeti topográfiája. Budapest.
- NAGY, M. 1998: *Awarenzeitliche Gräberfelder im Stadtgebiet von Budapest I–II*. Monumenta Avarorum Archaeologica 2. Budapest.
- NAGY, S. 1971: Nekropola iz ranog srednjeg veka u ciglani „Polet” u Vrbasu. *Rad Vojvodanskih Muzej* 20, 187–268.
- PÁRDU CZ, M. 1937: A hódmezővásárhelyi református gimnázium régiséggyűjteménye. *Dolgozatok XIII*, 105–181.
- PÁSTOR, J. 1971: Kostrové Pohrebisko v Hraničnej pri Hornáde. *Východoslovenský Pravek* 2, 89–179.
- POHL, W. 2002: *Die Awaren. Ein Steppenvolk in Mitteleuropa 567–822. n. Chr.* (2<sup>nd</sup> edition) München.
- RHÉ, GY. – FETTICH, N. 1931: *Jutas und Öskü. Zwei Gräberfelder aus der Völkerwanderungszeit in Ungarn*. Skythika IV. Prague.
- ROSNER, GY. 1999: *Das awarenzeitliche Gräberfeld von Szekszárd-Bogyiszlói Strasse*. Monumenta Avarorum Archaeologica 3. Budapest.
- SCHWAMMENHÖFER, A. 1976: Ein awarenzeitlicher Bestattungsplatz in Mödling bei Wien. *Antike Welt* 7, 11–18.
- SIKORA, P. 2014 (ed.): *Zentralisierungsprozesse und Herrschaftsbildung im frühmittelalterlichen Ostmitteleuropa*. Studien zur Archäologie Europas 23. Bonn.
- Cs. SÓS, Á. 1958: *A keceli avarkori temetők*. Régészeti Füzetek II/3. Budapest.
- SÖTÉR, Á. 1898: *A mosonymegyei történelmi és régészeti egyesület emlékkönyve 1882–1898. A honfoglalás ezeréves ünnepélyének emlékére*. Mosonmagyaróvár.
- STADLER, P. 1990: Verbreitung und Werkstätten der awarischen Hauptriemenbescläge mit Greifendarstellung. In: FRIESINGER, H. – DAIM, F. (eds.): *Typen der Ethnogenese unter besonderer Berücksichtigung der Bayern II*. Österreichische Akad. d. Wiss. Phil.-Hist. Kl. Denkschriften 204, Veröffentlichungen der Kommission für Frühmittelalterforschung 13. Wien, 305–350.
- SZALAI Z. A. 2015: *Közép és késő avar kori fegyveres temetkezések a Kisalföld- és környékének néhány temetőjében*. Szakdolgozat ELTE BTK, Régészettudományi Intézet. Kézirat.
- SZALONTAI, CS. 2016: A Szeged-öthalmi avar- és honfoglalás kori lelőhelyekről. Gondolatok egy mikrorégió hatalmi struktúrájáról (On the Avar and Hungarian conquest age sites of Szeged-Öthalom. Notes on the power structure of a microregion). In: CSÉCS, T. – TAKÁCS, M. (eds.): *Beatus homo qui invenit sapientiam. Ünnepi kötet Tomka Péter 75. születésnapjára*. Győr, 687–699.
- SZALONTAI CS. – SÜMEGI P. 2014: A Maty-ér és a kapcsolódó vízrendszer szerepe és jelentősége Szeged környékének településtörténetében. In: UNGER, J. – PÁL-MOLNÁR, E. (eds.): *Geoszférák 2014*. Szeged, 179–204.
- SZENTHE, G. 2012: Mesterek és vevőkörük. Öntött bronztárgyak előállítás és terjesztése a késő avar kori Kárpát-medencében (Meister und ihre Kunden. Herstellung und Verbreitung von gegossenen Bronzegegenständen im spätaawarenzeitlichen Karpatenbecken). *Archaeologiai Értesítő* 137, 57–75.

- SZENTHE, G. 2013: Antique Meaning – Avar Significance. Complex Iconographic Schemes on Early Medieval Small Objects. *Acta Archaeologica Academiae Scientiarum Hungaricae* 64, 139–172.
- SZENTHE, G. 2015: Über die Aussagekraft der Hinterlassenschaft einer Heidenelite: Spätawarenzeitlich Funde auf dem Prüfstand. In: HEINRICH-TAMÁSKA, O. – HEROLD, H. – STRAUB, P. – VIDA, T. (eds.): „Castellum, Civitas, Urbs” Zentren und Eliten im frühmittelalterlichen Ostmitteleuropa. *Centres and Elites in Early Medieval East-Central Europe*. Castellum Pannonicum Pelsonense 6. Budapest – Leipzig – Keszthely – Rahden/Westf., 293–312.
- SZENTHE, G. 2016: Crisis or Innovation? A Technology-Inspired Narrative of Social Dynamics in the Carpathian Basin during the Eighth Century. In: BOLLÓK, Á. – CSIKY, G. – VIDA, T. (eds.): *Zwischen Byzanz und der Steppe. Archäologische und Historische Studien für Csanád Bálint zum 70. Geburtstag. Between Byzantium and the Steppe. Archaeological and Historical Studies in Honour of Csanád Bálint on the Occasion of His 70th Birthday*. Budapest, 351–370.
- SZENTPÉTERI, J. 2013: Az Avar Kaganátus hatalmi központjai – a hringek (The hringes – Political centres of the Avar Khaganate). *Tisicum – A Jász-Nagykun-Szolnok Megyei Múzeumok Évkönyve* XXII, 169–177.
- SZEREMLEY, S. 1900: *Hód-Mező-Vásárhely története*. Hódmezővásárhely.
- SZÓKE, B. M. 2001: Egy avar kori indavirág. Késő avar kori övgarnitúra Zalaegerszeg-Ola, Új kaszárnya területéről (Eine awarenzeitliche Rankenblume. Spätawarenzeitliche Gürtelgarnitur aus Zalaegerszeg-Ola, auf dem Gebiet der neuen Kaserne). *Zalai Múzeum* 10, 103–140.
- SZÓKE, B. M. 2014: *The Carolingian Age in the Carpathian Basin*. Budapest.
- TETTAMANTI, S. 1985: Avar kori sírok Fótról. *Studia Comitatus* 17, 345–368.
- TOČIK, A. 1992: Materialy k dejinám južneho Slovenska v 7.–14. storoci. *Študijné Zvesti* 28, 5–250.
- H. TÓTH, E. 1992: Eredmények és problémák Bács-Kiskun megye avar kori kutatásában. *Cumania* 13, 41–74.
- H. TÓTH, E. – HORVÁTH, L. 1992: *Kunbáony. Das Grab eines Awarenkagans*. Kecskemét.
- TÖRÖK, GY. 1995: *The Csengele-Feketehalom Cemetery*. Das Awarische Corpus – Avar Corpus Füzetek IV. Debrecen – Budapest, 208–243.
- TRUGLY, A. 1987: Gräberfeld aus der Zeit des Awarischen Reiches bei der Schiffswerft in Komárno I. *Slovenská Archeológia* 35, 251–344.
- TRUGLY, A. 1993: Gräberfeld aus der Zeit des Awarischen Reiches bei der Schiffswerft in Komárno II. *Slovenská Archeológia* 41, 191–307.
- VÁCZI, G. 2014: A hálózatelemzés régészeti alkalmazásának lehetőségei a késő bronzkori fémművesség tükrében (Potentials of the archaeological application of network analysis in the light of Late Bronze Age metallurgy). *Archaeologiai Értesítő* 139, 261–291.
- VÉGH, K. 1963: A sajoszentpéteri avarkori leletek. *A Miskolci Herman Ottó Múzeum Közleményei* 5, 15–23.
- VÉGH, K. 1964–1965: A nyékládházi avar temető. *A Herman Ottó Múzeum Évkönyve* 5, 177–211.
- VIDA, T. 2008: Conflict and coexistence: The local population of the Carpathian Basin under Avar rule (sixth to seventh century). In: CURTA, F. (ed.): *The Other Europe in the Middle Ages: Avars, Bulgars, Khazars and Cumans*. East Central and Eastern Europe in the Middle Ages, 450–1450. Leiden – Boston, 13–46.
- VIDA, T. 2009a: Local and Foreign Romans? The Problem of the Late Antique Population of the 6th–7th Centuries AD in Pannonia. In: QUAST, D. (ed.): *Foreigners in Early Medieval Europe. Thirteen International Studies on Early Medieval Mobility*. Mainz, 233–260.

- VIDA, T. 2009b: Raumkonzepte der Awaren und Byzantiner und deren Auswirkungen im unteren und mittleren Donaubecken im 6.-7. Jahrhundert. In: HANSEN, S. – MEYER, M. (eds.): *Parallele Raumkonzepte*. Topoi – Berlin Studies of the Ancient World 16. Berlin, 307–324.
- VIDA, T. – PÁSZTOR, A. 1996: Der beschlagverzierte Gürtel der Awaren am Beispiel des Inventars von Budakalász. In: *Reitervölker aus dem Osten. Hunnen+Awaren*. Begleitbuch und Katalog. Eisenstadt 1996, 341–346.
- WOBRAUSCHEK, P. – HAIDER, W. – STRELI, CH. 1987: Röntgenfluoreszenzanalyse von Bronzefunden aus der Awarzeit. In: DAIM, F.: *Das awarische Gräberfeld von Leobersdorf 2*. Wien, 45–56.
- ZÁBOJNÍK, J. 1991: Seriation von Gürtelbeschlaggarnituren aus dem Gebiet der Slowakei und Österreichs (Beitrag zur Chronologie der Zeit des Awarischen Kaganats). In: ČILINSKÁ, Z. (ed.): *K problematike osídlenia stredodunajskej oblasti vo včasnóm stredoveku*. Nitra, 219–321.
- ZÁBOJNÍK, J. – BÉREŠ, J. 2016: *Pohrebisko z obdobia avarského kaganátu vo Valalikoch-Všechvätých*. Nitra.

## List of sites on the distribution maps

1. Abony-Neppel J. telke
2. Apatin-Dunavska ul.
3. Áporka-Ürbőpuszta
4. Bakonycsernye-Kun Béla utca
5. Budapest-Csepel, Szabadkikötő
6. Budapest-Rákos
7. Budapest-Vöröskereszt utca
8. Csatáj (Čataj)
9. Cerevic-Obala Dunava
10. Cífer-Pác
11. Dunacsún (Čunovo)
12. Dévényújfalú (Devínska Nova Ves)
13. Dunabogdány
14. Dunapentele
15. Dunaradvány, Zsitvatő  
(Radvan nad Dunajom-Zitavska Ton)
16. Ebed (Obid)
17. Érsekújvár (Nové Zámky)
18. Nemesvölgy (Edelsthal)
19. Fót
20. Gátér-Vasútállomás
21. Gyenesdiás
22. Győr-Téglavető-dűlő
23. Halimba-Belátódomb
24. Hird-Homokbánya
25. Homokmégy-Halom
26. Hódság (Odžac)
27. Jánoshida-Tótkérpuszta
28. Kassa-Zsebes (Sebastovce)
29. Kékesd
30. Kenderes-Bánhalom
31. Kenyhec (Hranicná pri Hornáde)
32. Keszthely
33. Kisköre-Halastó
34. Komárom-Hajógyár (Komárno-Lodenice)
35. Kölked-Feketekapu B
36. Ladánybene-Fő út
37. Lajtapordány (Leithaprodersdorf)
38. Lászlófalva-Borbás
39. Lébény
40. Leobersdorf-Ziegelei Polsterer
41. Lukácsháza-Hegyalja dűlő
42. Mistelbach
43. Mosonszentjános-Kavicsbánya
44. Mosonsztpéter-Kavicsbánya
45. Mödling-Goldene Stiege
46. Münchendorf
47. Nagypall I-Határi dűlő
48. Novi Slankamen
49. Nyékládháza-Vasútállomás
50. Óföldségek
51. Ordas
52. Orosháza-Bónum-téglagyár
53. Öskü-Agyaggödör
54. Pancsova (Pančevo)
55. Párkány (Šturovo)
56. Pécel-Lebuki-dűlő
57. Pilismarót-Basaharc
58. Pötsching
59. Pusztamérges B
60. Pusztazámor
61. Regöly
62. Romonya I
63. Sommerein
64. Sukoró-Gádéi határ
65. Szarvas-Grexa téglagyár
66. Szárazd
67. Szebény I
68. Szeged-Csengele, Feketehalom
69. Szeged-Domaszék
70. Szeged-Fehértó A
71. Szekszárd-Bogyiszlói út
72. Szentes-Lapistó
73. Szentes-Nagyhegy
74. Szentendre
75. Szentiván
76. Székkutas-Kápolnadűlő
77. Szirák-Degenfeld-birtok
78. Szőreg B, községi homokbánya
79. Tápé
80. Tiszafüred-Majoros
81. Tiszaeszlár-Hugyínpárt
82. Tiszavárkony
83. Traiskirchen
84. Üllő I-Disznójárás
85. Várpalota-Bántapuszta
86. Vasasszonyfa
87. Verbász (Vrbas-cigljana Polet)
88. Vojka Brdasica
89. Vukovar-Svapsko brdo
90. Wien-Unter St. Veit
91. Zalakomár-Lesvári-dűlő
92. Zamárdi-Rétiföldek
93. Zillingtal
94. Zwölfaxing
95. Kál