



„Hadak útján”

A népvándorlaskor fiatal kutatóinak
XXVI. konferenciája

GAZDASÁG – KERESKEDELEM – KÉZMŰVESSÉG

26th Conference of Young Scholars
on the Migration Period

ECONOMY – TRADE – CRAFTSMANSHIP



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

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Budapest, 2016. november 3–4.

edited by

Zsófia RÁCZ – István KONCZ – Bence GULYÁS



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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

Archaeological study of face beads excavated from an Early Sarmatian grave

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Abstract

This study deals with a rare bead type, the millefiori bead with facial representation, excavated from the context of a woman's grave of the Early Sarmatian Period from the outskirts of Dunakeszi. The analogies of the bead, dated to the end of the 1st century-beginning of the 2nd century AD, can be found from the Black Sea region to the Baltic Coast.

The Budapest History Museum performed preventive excavations in 2004 at Dunakeszi-Székesdűlő, preceding the construction of the mall Buy-Way (Fig. 1.1).¹ Archaeological finds belonging to several periods were unearthed here, most of them dated to the Early Bronze Age.

On the South-Western margin of the prehistoric settlement remains two Roman Imperial period graves were found, 15 meters from each other (Fig. 1.2). According to the gravegoods, they must have belonged to persons of different social status: a woman dressed in a garment ornamented with gold flitters with valuable jewels while the other person received only a single small bead (Fig. 1.3–4).² The deceased were laid on their back with slightly raised shoulders. Both graves were intact but the complete left hand and the lower ribs of the rich female were missing.³ According to the anthropological studies, on the 30–35 years old woman an amputation was performed, probably due to certain injuries (Fig. 1.4–5).⁴ The neck of her dress was ornamented with pressed round flitters made of thin gold plate; the sleeves were decorated with triangular flitters. Around the neck, a string of beads composed of cornelian, rock crystal and amber was found. In the middle of the long part of the string, a bead of faience depicting a lion was placed while the central element of the shorter part of the string was a golden *lunula* decorated with granulation placed between to beads covered with golden foil (Fig. 2). At the right wrist, an open end bronze bracelet, moreover amber and cornelian beads as well as *millefiori* glass beads with checkerboard and facial representation pattern were found (Fig. 3.5–6). At the feet, a wheel-turned, red painted jug with one handle was placed; her personal tools, the spindle whorl and the mirror were placed besides the right shoulder.⁵

The heritage of the first immigrating Iazigians in the Carpathian Basin is generally referred to in technical literature as “golden horizon”, opposing the richness of the undisturbed graves

1 KOROM – REMÉNYI 2005.

2 The skeleton without grave goods was lost, so the age and gender of the deceased cannot be identified.

3 The orientation of the skeleton and the grave pit was S–N (165–345°). Length: 237 cm, width: 78–95 cm; depth: 45–52 cm.

4 Anthropological investigations were performed by Zsolt Bernert and Ágota Buzár (Hungarian Natural History Museum, Department of Anthropology), their contribution is acknowledged by the author (BUZÁR – BERNERT 2018).

5 KOROM 2018.

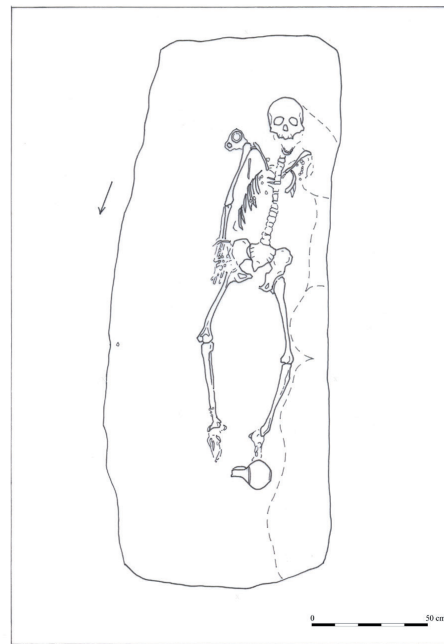
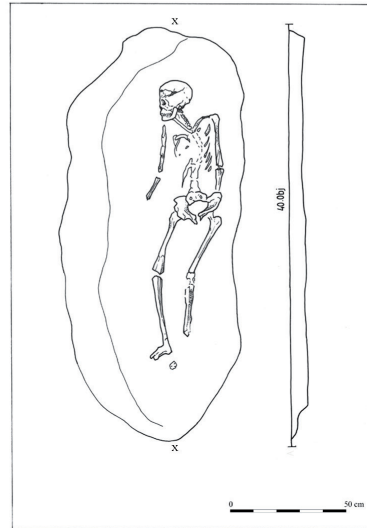
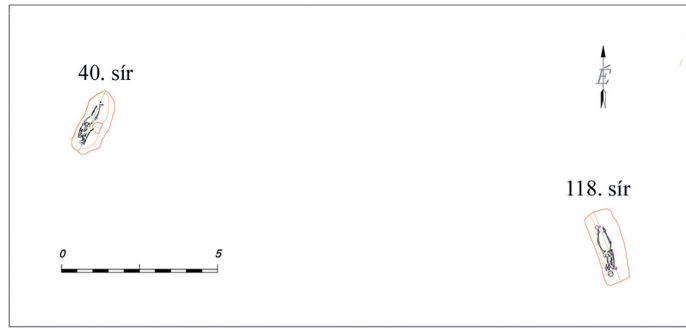


Fig. 1. 1 – Location of the site, 2 – Site plan (drawn by: Zsolt Viemann), 3–4 – Grave 40 (Photos: László Reményi), 5–6 – Grave 118 (Photos: László Reményi)

dated to the end of the 1st century – beginning of the 2nd centuries AD to the later burial evidence of the comparatively poor and often disturbed graves of the later periods. Most of the known early period graves can be associated with women and only a small part of them were found in authentic excavation context.⁶

The gold objects found in the grave have good parallels in the Hungarian material but this cannot be said about the Northern Black Sea region which is considered to be its antecedent. The golden flitters sewn on the garment, the beads, the mirror, bracelet and the faience lion can be equally found on the Kuban region and the northern coast region of the Black Sea in the relics of the 1st–2nd centuries AD. Earrings ornamented with granulation and golden *lunulae* of similar pattern are found in much smaller number and distributed over very large area in the mentioned eastern territories.⁷

For the other grave, the single bead found in it is not adequate to claim the contemporaneity with the female grave with gold finds, but the only white seed bead found is a characteristic bead type of the Sarmatians. The contemporaneity of the two graves is further corroborated by a parallel find in Füzesabony. In a seven grave small cemetery belonging to the “golden horizon”, besides a person buried with golden jewellery, another skeleton was found in irregular position close to the rich grave with simple bead grave goods.⁸ Probably we can observe the same rite: the high status woman was buried with her maid, so that she could serve her on the Other World.

Face beads

Obviously one of the most interesting types in the grave is a group of disc-shaped beads with facial representation. My study is primarily concerned with the archaeological study of these objects.

The string decorating the arm, excavated in two runs, was supplied, besides the amber and cornelian beads, four disc-shaped mosaic beads with facial representations, drilled horizontally. Three among the beads (*Fig. 3.1–3*) were identical with yellow face (6×4 mm), with black eyes, eye-brows and nose line. The mouth is black and finger-cake form, with red line framing. The hair is indicated by red parallel lines on the phase between the eyes. The face is surrounded by a 1 mm thick black and a 0.5 mm thick red line, and the complete bead is surrounded by a 2 mm thick green layer (diameter: 0.9–1.15 cm, thickness: 0.3–0.4 cm, diameter of the drilled hole: 0.15–0.2 cm). The last bead (*Fig. 3.4*) with facial representation is different from the others. The face is white (4×5 mm), the eyes, eyebrows, nose line and mouth is black. At the temple part, a black longish tress is hanging over the right eye. On the chin, extending till the line of the eyes we can find a 1 mm thick red “beard”. The face is surrounded by a 1 mm thick black and a 0.5 mm thick white stripe, while the complete bead is surrounded by a light green layer of 1–2 mm (diameter: 0.9–1 cm, thickness: 0.3–0.35 cm, diameter of the drilled hole: 0.15–0.2 cm).

6 Problems in dating the Ist and IInd periods, respectively and the authenticity of the site has been recently dealt with by Gabriella Vörös (VÖRÖS 2006).

7 The problems of the Early Sarmatian period and the analysis of the finds was recently dealt with by Eszter Istvánovits and Valéria Kulcsár (ISTVÁNOVITS – KULCSÁR 2006). For the Eastern analogies, see: SIMONENKO ET AL. 2008.

8 FARKAS 2000.



Fig. 2. Grave 118. 1 – Reconstruction of the longer necklace, 2 – Reconstruction of the shorter necklace (Photo: Nóra Szilágyi)

Millefiori beads with facial representation were first studied by Dagmar Selling. In her work, two main types were separated, different not only in style and ornamentation but in distribution and chronology as well. In the case of type I, the early variant, there is one face on the disc-form bead while on the globular beads, centred in the middle of the monochrome glass base there are 2–6 pieces of facial representations in one stripe. In the case of type II, dated for the 4–5th centuries, the globular beads have a facial representation in the central stripe, typically combined with other motives, most frequently with checkerboard pattern.⁹ The same classification was used by Magdalena Tempelmann-Mączyńska: the type Selling I corresponding in her system to Nr. 369 while type II is listed as Nr. 370.¹⁰ Ye. M. Alekseeva established a grouping on the basis of colours used in framing the faces: the best parallel to our beads is offered by Nrs. 448–454 in her study.¹¹ The number of type I beads is typically exceeding those of type II¹² but they are typically not from authentic excavations but of uncertain provenance (most of them known from auction pages of the internet); from the 61 disc-shaped specimens¹³ only 22 can be connected to archaeological activities.

The disc shaped beads are typically 1–1.2 cm in diameter and 0.3–0.5 cm thick, representing always one face only. Their outline is typically round or quadrangular. Among the four disc shaped beads of the Dunakeszi grave, three pieces were identical in respect of colour and the form of the eyes and the mouth. The formation of the face on the light green bead is more refined, the hair is marked by a dangling lock. The variation among the published disc-shaped beads is rather large but there are some regularities observable. The line of the chin is formed by a stripe from below, which can be observed on the Dunakeszi specimens only on the light green piece. The completed face is typically framed by a 0.1 mm wide black stripe followed by another lighter colour stripe of similar thickness. This is surrounded by the glass in the base colour of the bead, in most cases of translucent green colour.¹⁴ It is interesting to observe the representation of the hair on the beads, typically imitated with alternating stripes of red and white or black and white colour on the part between the two eyes.¹⁵ This representation of the hair is also interpreted as stylized snakes, an important criterion for the Gorgons.¹⁶ Already Dagmar Selling had suggested that these beads could serve as amulets as well.¹⁷ As part of the Crimean *crepundia* (Fig. 4.8), among several human and facial representation we can find a Selling I. type face bead and a faience lion as well.¹⁸

The production of *millefiori* beads was expensive and required special skills, therefore they could only be produced in high technical level workshops. The individual sample types could be used for long time or some of them were restricted to specific periods.¹⁹ The production technique involves the mixing of the glass base and the metal oxides used as colourants in a heat-resistant

9 SELLING 1942, 23–24.

10 TEMPELMANN-MĄCZYŃSKA 1985, 61.

11 АЛЕКСЕЕВА 1982, 40–41.

12 TEMPELMANN-MĄCZYŃSKA 1985, 300.

13 Early face beads were collected by Robert K. Liu from the auction catalogues between 1972–2000. 326 pieces of face beads were collected; among them, 282 globular form and 41 disc form items (LIU 2014).

14 In the paper analysing the disc shaped beads, Robert K. Liu described seven colour combinations. The most frequent is a green frame, followed by light red, chestnut brown and translucent blue (LIU 2014, 42).

15 The number of red stripes is alternating between 5 and 17, with 8–9 stripes on average (LIU 2014, 41).

16 LIU 2014; RIHA 1990, 83.

17 SELLING 1942, 48.

18 JOHNSTON 1909, 69, Fig. 17.

19 VOLKMANN – THEUNE 2001, 530.

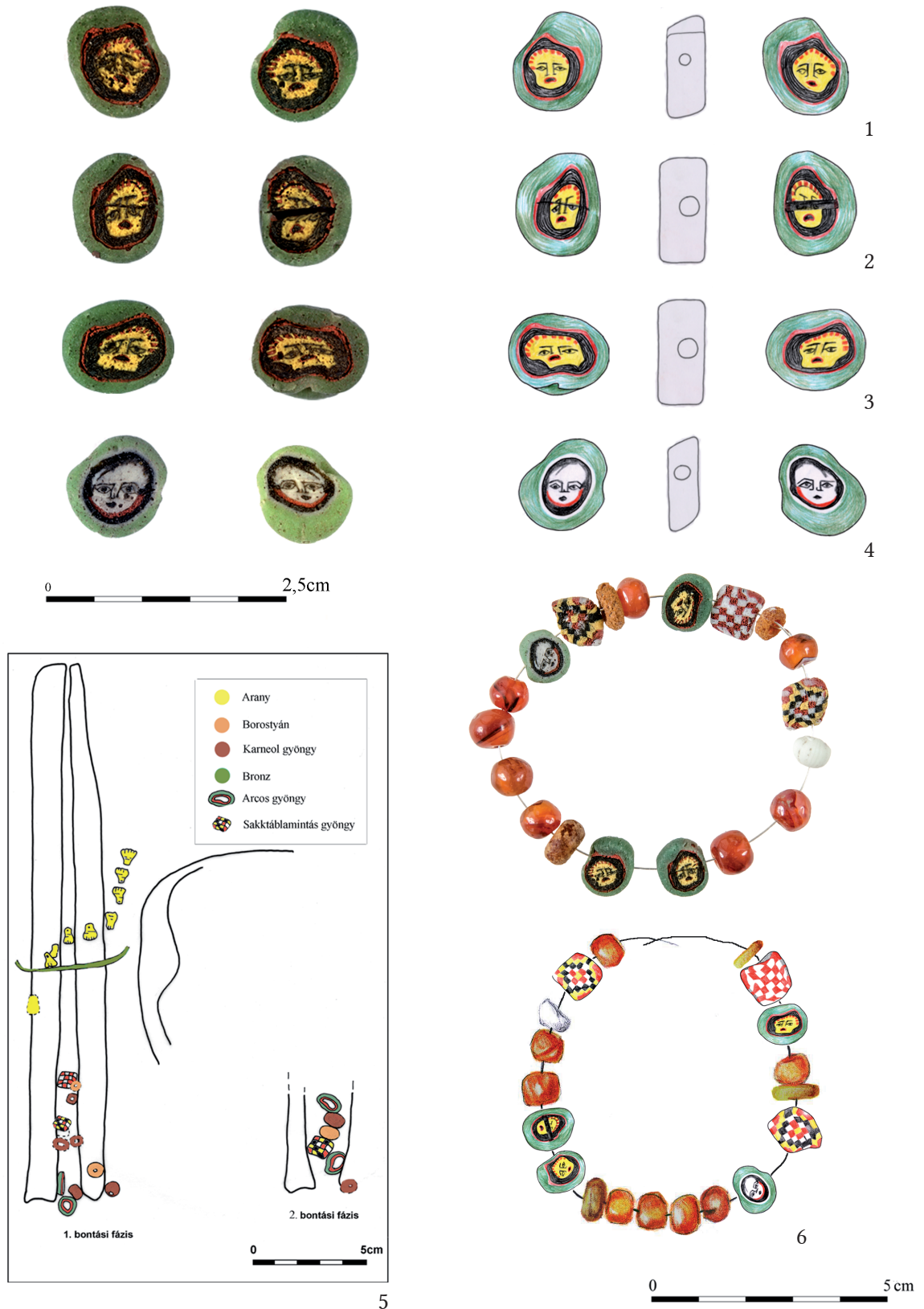


Fig. 3. Grave 118. 1-4 – Face beads, Scale=2:1, 5 – Phases of the excavation of the right lower arm (drawing: Anita Korom), 6-7 – Reconstruction of the arm ornament (Photo: Nóra Szilágyi, drawing: Orsolya Kangyal)

ceramic vessel at 1200–1400°C, to exclude unwanted contamination. From the glass parison, with the help of a long iron rod, glass canes of various thickness can be drawn and shaped, as well as cut to the desired size. For the *millefiori* beads, one has to plan the motive in advance and prepare the various colour glass canes in the proper order. The individual canes are melted together by local heating (Fig. 5.1).²⁰ By the end of the process a long and relatively thick glass rod is made that can be formed to the desired thickness by pulling and cut up to slices of 3–4 mm in thickness. Because of the complicated way of production, it is probably that the face beads were produced by glass workshops of considerable technical experience. The product could be set easily into the required form and colour frame by less trained hands as well.²¹ To prove this, however, we have not enough scientific analyses on, e.g., exact composition of the glass. We have no data on half-products of central facial representation from the relics of glass workshops so far.

In respect of production sites, the general opinion accepted the view of A. Kisa, that is, the face beads could probably be produced in Alexandria in the beginning of the 1st century AD.²² Analysing the Magdalensberg face beads, Barbara Czurda-Ruth touched upon the origin of the production technique as well. In her opinion, the technique of the production of *millefiori* beads was invented and developed in Alexandria and the production technology was spread from here as well.²³ This latter concept was adopted by Beat Rütli²⁴ and Emilie Riha as well.²⁵ On the basis of type Selling II beads, dated on the strength of iconography of the facial representations to the 4–5th centuries AD, we can raise the Egyptian origin as well.²⁶ In the recent publications, the distribution of the bead types concentrated attention on the Northern coastal region of the Black Sea, mainly for type Selling II.²⁷ Some type Selling II beads were analysed by Ann M. Stout, working on Late Roman face beads. Her results indicated Roman workshops. In her opinion, the production centre of these beads must have been Rome or Trier.²⁸ In our opinion, the production centre for the early Selling I. type face beads must have been in Alexandria, the cradle of the *millefiori* technique. From here, the technical know-how was spread by Greek mediation to the Northern coastal region of the Black Sea, and later on, to Italy.²⁹ The question is difficult to decide, because we do not know any glass workshops producing *millefiori* beads from this period.

Dagmar Selling had already dated type I in her comprehensive work published in the 40-ies of the 20th century to the 1st century AD,³⁰ the more recently found pieces could only further refine this dating. In Herculaneum, beside a female skeleton six disc shaped beads were included in a string (Fig. 4.7). The eruption of the Vesuvius dated the finds to 79 AD.³¹ Earlier evidence was presented by the grave of a young girl from the environs of Rome, buried with a rock crystal necklace, dated by a not worn Tiberius coin to 16 AD, also containing face

20 Face beads are still produced in Northern India: a series of drawings was made and published on the supposed production technique (VOLKMANN – THEUNE 2001, 525–526, Abb. 1. 3a).

21 LIU 2014, 42.

22 KISA 1908; SELLING 1942, 48.

23 CZURDA-RUTH 1979, 197–198.

24 RÜTTI 1988, 91.

25 RIHA 1990, 83.

26 ZAK 1977, 69.

27 TEMPELMANN-MĄCZYŃSKA 1985, 135; ERDRICH – VOSS 1997, 82.

28 STOUT 1986, 76.

29 A research historical summary on *millefiori* beads is given by VOLKMANN – THEUNE 2001, 523–525.

30 SELLING 1942, 48.

31 GORE 1984, 563.



Fig. 4. 1–8. Selling I. type beads. 1 – Oberwinthertur (RÜTTI 1988, Taf. 26/1905–1908), 2 – Čertovickoje (MEDVEDEV 2007, Abb. 6/26), 3 – Augst (RIHA 1990, 83), 4 – Lubowidz (TEMPELMANN-MĄCZYŃSKA 1985, 61), 5 – Grebieten (PRASSOLOV – SKVORZOV 2016, Fig. 7a), 6 – Northern coast-line of the Black Sea (АЛЕКСЕЕВА 1982), 7 – Herculaneum (GORE 1984), 8 – Crimean *crepundium* (JOHNSTON 1909)

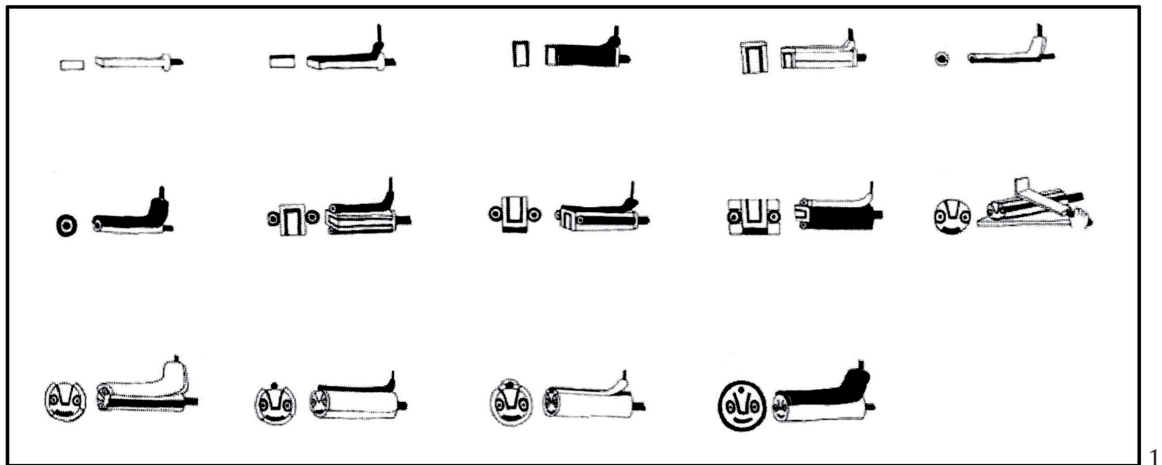


Fig. 5. 1 – Reconstruction of the production process after Volkmann (VOLKMANN–THEUNE 2001, 527. Abb. 1. 3a), 2 – Distribution map for Selling I. type face beads

1 – Augst (CH) (RIHA 1990, Taf. 36/1170), 2 – Oberwinthertur (CH) (RÜTTI 1988, Taf. 26/1905–1908), 3 – Dunakeszi, 4 – Magdalensberg (A) (CZURDA–RUTH 1979, Taf. 23), 5 – Herculaneum (I) (GORE 1984), 6 – Uherské Hradiště (CZ) (TEMPELMANN–MAĆZYŃSKA 1985, 61), 7 – Leżnica Wielka (PL) (TEMPELMANN–MAĆZYŃSKA 1985, 61), 8 – Lubowidz (PL) (STOUT 1986, Fig. 16; TEMPELMANN–MAĆZYŃSKA 1985, 61), 9 – Malbork–Wielbark (PL) (TEMPELMANN–MAĆZYŃSKA 1985, 61), 10 – Nowy Targ (PL) (STOUT 1986, Fig. 17; TEMPELMANN–MAĆZYŃSKA 1985, 61), 11 – Szczecin (TEMPELMANN–MAĆZYŃSKA 1985, 61), 12 – Friesland, Wieuwerd (NL) (SELLING 1942, 26), 13 – Friesland, Stiens (NL) (SELLING 1942, 26), 14 – Meroe (SUD) (STOUT 1985, 286), 15 – Čertovickoje (RUS) (MEDVEDEV 2007, Abb. 6/26), 16 – Around Rome (I) (STOUT 1985, 285), 17 – Pantikapaion (RUS) (STOUT 1985, 287), 18 – Pantikapaion (RUS) (STOUT 1985, 287), 19 – Pantikapaion (RUS) (STOUT 1985, 287), 20 – Kovalenko (RUS) (SCHILTZ 2001, 257), 21 – Tanais (RUS) (STOUT 1985, 287), 22 – Grebieten (RUS) (PRASSOLOW – SKVORZOV 2016, Fig. 7a)

beads.³² In the Roman *vicus* of Oberwinterthur, there were three disc shape beads (*Fig. 4.1*) besides each other in the construction horizon of the 2nd period, dated to the 30-ies of the 1st century AD.³³ The globular beads of the type Selling I can be dated to the same period. The specimen found in Augst (*Fig. 4.3*) is dated to the period between 1st–3rd centuries AD, unfortunately it cannot be dated more precisely on the basis of the associated finds.³⁴ The 7 pieces of globular beads found in Poland (*Fig. 4.4*) can be dated to the B1–B2 period.³⁵ In the evaluation of the Magdalensberg pieces, the author defined the date of production of the globular face beads to the first half of the 1st century AD.³⁶ The globular beads found in Meroe, with long hair and representation of the chest, can be dated to the first third/half of the 1st century.³⁷ The beads from the 5/40 kurgan of Čertovickoje I – a globular (*Fig. 4.2*) and two disc-shaped beads – can be dated to the turn of the 1st and 2nd centuries.³⁸

Summing up we can conclude that from the 20-ies and 30-ies of the 1st century AD till the beginning of the 2nd century AD, the type Selling I beads are known from a relatively wide circle (*Fig. 5.2*), from Egypt till the southern parts of Scandinavia.³⁹ Opposed to this, the type Selling II can be dated from the middle of the 4th century AD till the beginning of the 5th century, and they are mainly occurring in Scandinavia and the Baltic coast.⁴⁰

The Dunakeszi grave can be dated, on the strength of the set of jewellery, to the end of the 1st – beginning of 2nd century AD.⁴¹

References

- АЛЕКСЕЕВА, Е. М. 1982: *Античные бусы северного Причерноморья*. Археология СССР. Свод Археологических Источников. Вып. Г1-12. Москва.
- BEMMANN, J. 2006: Eine Völkerwanderungszeitliche Bestattung aus Epöl, Kom. Esztergom, mit Schwertriemendurchzügen skandinavischer Form. In: MIHAILESCU-BÎRLIBA, V. – HRIBAN, C. – LUCIAN MUNTEANU, L. (eds.): *Miscellanea Romano-Barbarica in honorem septagenarii magistri Ion Ioniță oblata*. Iași, 217–246.
- BUZÁR, Á. – BERNERT, Zs. 2018: Dunakeszi-Székesdülő „D” tömb lelőhelyről előkerült 118. sír embertani jellemzése (Die anthropologische Charakterisierung des im Grab 118 von Dunakeszi-Székesdülő, Block „D” freigelegten Skelettes). In: KOROM A. (Főszerk.). BALOGH Cs. – MAJOR B. – TÜRK A. (Szerk.): *Relationes rerum – Régészeti tanulmányok Nagy Margit tiszteletére (Relationes rerum – Archäologischen Studien zu Ehren von Margit Nagy)*. Studia ad Archaeologiam Pazmaniensia 10. Budapest, 203–207.
- CZURDA-RUTH, B. 1979: *Die römischen Gläser vom Magdalensberg*. Kärntner Museumsschriften 65. Archäologische Forschungen zu den Garbung auf dem Magdalensberg 6. Klagenfurt.

32 STOUT 1985, 23–24.

33 RÜTTI 1988, 91; Taf. 26 and 31, 1905–1907.

34 RIHA 1990, 83.

35 TEMPELMANN-MĄCZYŃSKA 1985, 61; Taf. 12.

36 CZURDA-RUTH 1979, 198.

37 STOUT 1985, 23–25.

38 MEDVEDEV 2007, Abb. 2, 34; Abb. 6, 24–26.

39 STOUT 1986, Fig. 4.

40 The dating and distribution of the 23 pieces known so far has been recently dealt with by Jan Bemann, in connection with the Epöl grave (BEMMANN 2006).

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- ERDRICH, M. – VOSS, H.-U. 1997: Die Perlen der Germanen des 1.–5. Jahrhunderts in der Mecklenburg-Vorpommern, Schleswig-Holstein und Niedersachsen. In: FREEDEN, U. VON – WIECZOREK, A. (Hrsg.): *Perlen. Archäologie, Techniken, Analysen*. Bonn, 77–93.
- FARKAS, Cs. 2000: Kora szarmata sírok Füzesabony határában (Füzesabony-Kastély-dűlő I.) (Früh-sarmatische Gräber in der Gemarkung von Füzesabony [Füzesabony-Kastély-dűlő I.]). PETERCSÁK, T. – VÁRADI, A. (eds.): *Heves Megyei Régészeti Közlemények 2*. Eger, 15–50.
- GORE, R. 1984: After 2000 years of silence. The dead do tell tales at Vesuvius. *National Geographic* 165/5, 556–613.
- ISTVÁNOVITS, E. – KULCSÁR, V. 2006: Az első szarmaták az Alföldön (Gondolatok a Kárpát-medencei jazig foglalásról) (The first Sarmatians in the Great Hungarian Plain [Some notes on the Iazygian immigration into the Carpathian Basin]). *A Nyíregyházi Jósza András Múzeum Évkönyve XLVIII*, 203–237.
- JOHNSTON, H. W. 1909: *The private life of the Romans*. Chicago.
- KISA, A. 1908: *Das Glas in Altertume*. Leipzig.
- KOROM, A. 2018: Korai szarmata sír Dunakeszi határából (Ein frühsarmatisches Frauengrab in der Gemarkung von Dunakeszi [Kom. Pest]). In: KOROM A. (Főszerk.), BALOGH Cs. – TÜRK A. – MAJOR B. (Szerk.): *Relationes rerum. Régészeti tanulmányok Nagy Margit tiszteletére (Relationes rerum. Archäologische Studien zu Ehren von Margit Nagy)*. Studia ad Archaeologiam Pazmaniensia 9. Budapest, 175–202.
- KOROM, A. – REMÉNYI, L. 2005: Újabb régészeti kutatások Dunakeszi-Székesdűlőn (Recent archaeological investigations at Dunakeszi-Székesdűlő). *Aquincumi Füzetek* 11, 197–209.
- LIU, K. R. 2014: Nubian mosaic face beads. The enigma of variations. *Ornament* 37:5, 40–45.
- MEDVEDEV, A. 2007: Hügelgräber und befestigte Siedlungen der sarmatischen Zeit am oberen Don. *Eurasia Antiqua* 13, 257–284.
- PRASSOLOV, J. A. – SKVORZOV, K. 2016: On the Significance and Research Potential of the Grebieten Burial Ground: A Reconstruction of the Prewar State of Knowledge and the Prospects for Modern Research. *Archaeologia Baltica* 23, 81–95.
- RIHA, E. 1990: *Der römische Schmuck aus Augst und Kaiseraugst*. Forschungen in Augst 10. Augst.
- RÜTTI, B. 1988: *Beiträge zum Römischen Oberwinterthur*. Vitodurum 4. Berichte der Zürcher Denkmalpflege, Monographien 5. Zürich.
- SCHILTZ, V. 2001: L'Or des Amazones. Peuples nomades entre Asie et Europe VIe siècle av. J. C. – IVe siècle apr. J. C. Paris.
- SELLING, D. 1942: Mosaikpärlor med ansiktsmasker (Mosaikperlen mit Gesichtsmasken). *Forvänner* 37, 23–48.
- SIMONENKO, A. – MARČENKO, I. I. – LIMBERIS, N. JU. 2008: *Römische Importe in sarmatischen und maiotischen Gräbern zwischen Unterer Donau und Kuban*. Archäologie in Eurasien Band 25. Mainz.
- STOUT, A. M. 1985: *Mosaic glass face beads: Their significance in northern Europe during the Later Roman Empire*. Vols. I., II. Ph.D. dissertation, University of Minnesota.
- STOUT, A. M. 1986: The Archaeological Context of Late Roman Period Mosaic Glass Face Beads. *Ornament* 9 (4), 58–61, 76–77.
- TEMPELMANN-MĄCZYŃSKA, M. 1985: *Die Perlen der römischen Kaiserzeit und der frühen Phase der Völkerwanderungszeit im mitteleuropäischen Barbaricum*. Römisch-Germanische Forschungen 43. Frankfurt am Main.

- VOLKMANN, A. – THEUNE, C. 2001: Merowingerzeitliche Millefioriperlen in Mitteleuropa. *Ethnographisch-Archäologische Zeitschrift* 42, 521–553.
- VÖRÖS, G. 2006: Az alföldi jázigok hagyatékának kronológiai problémái. In: TÓTH I. (ed.): *Múzeumi Kutatások Csongrád Megyében 2005*. Szeged, 21–29.
- ZAK, J. 1977: Die Glasperlen mit Gesichtsmasken und Schachbrettmustern in Nord- und Mitteleuropa. *Zeitschrift für Archäologie* 11, 67–72.