

The early Avar period cemetery at Szegvár-Oromdűlő and the role of niche graves in the
funerary rite in eastern Hungary
(Final report)

The goal of the research project was two-fold. The first, the description of the burials and the grave goods of the early Avar period cemetery uncovered at Szegvár-Oromdűlő, the period's largest burial ground in the Tiszántúl (trans-Tisza) region of eastern Hungary, and the archaeological and anthropological assessment of the finds and the human remains. The second, the collection of data on the period's burial customs in the Tiszántúl region, a well-definable geographic region, and their comparison with the observation made on funerary rites in the Szegvár cemetery. Our choice of this research subject was motivated by our conviction that funerary rites offer a better understanding of the period's communities living in the area than the relics of their material culture.

Owing to the sudden illness and premature death of Dr. Livia Bende, the project's director, on July 30, 2009, a new leading researcher had to be found. We completed the research project by the modified deadline. Owing to Dr. Bende's death, only a part of planned publications was completed and thus a report on the project findings still awaits publication. We are planning to apply for an OTKA publication grant this year.

In addition to the archaeological assessment (Livia Bende, Gábor Lőrinczy), we have assembled and edited the full illustrative material: the grave plans, the section drawings and the drawings of the grave goods. The picture editor has prepared 400 black and white tables and 41 colour plates, which are ready for publication. In addition to the overall plan of the cemetery, we have also prepared 40 plans showing the distribution of various elements of the funerary rite, the age and sex of the deceased, and the distribution of various artefact types. We have also prepared distribution maps showing the frequency of niche graves, burials with horse harness, etc. in the Tiszántúl region and in the Carpathian Basin.

I. The early Avar period cemetery at Szegvár-Oromdűlő

The cemetery lies on a 3–4 m high sand ridge east of the modern settlement. The site was excavated between 1980 and 1997: in addition to the 513 early Avar period burials, we also uncovered a Roman Age settlement and cemetery, and a 10th–11th century on the 36,000 m² large investigated area.

The archaeological finds

The grave goods from the cemetery's male and female burials encompass the entire range of early Avar period finds in the Carpathian Basin; at the same time, several unique traits could be distinguished in the archaeological material. Luckily for us, only about 6% of the graves (27 burials) had been disturbed by the period's grave robbers. The community using the cemetery had a colourful culture: in addition to relics bespeaking eastern traditions, the grave goods included jewellery and utilitarian artefacts reflecting Byzantine and Germanic cultural influences.

The beads recovered from the female and child burials comprised both local, early Avar period types and pieces produced in eastern, Byzantine and Merovingian workshops. Each type

of the period's silver and gold earrings occurred among the female costume elements. Breast ornaments made in Byzantine workshops or inspired by Byzantine pieces were found in several female burials.

The overwhelming majority of the belt mounts from the male burials bear a unique design; the typo-chronological analysis offered a sound basis for refining the chronology of the use of similar belt mounts in the Tiszántúl region. The belt mounts were often found in undisturbed graves, enabling the correction of earlier belt reconstructions and the creation of new, more accurate reconstructions. Three different modes of wearing purses could be documented among the adult population; the three different modes also indicated a different cultural background for each type. The observations made during the excavation of the male and female burials added a wealth of new details to the period's costume and fashion.

In addition to the western *spathas* and *saxes* of Merovingian origin and the single and double-edged swords, each type of the entire range of early Avar period cutting and thrusting weapons was recovered from the burials. In terms of cutting weapons, the Szegvár cemetery stands out from among the average Avar period cemetery owing to the relatively high proportion of ring-hilted swords and swords with precious metal fittings. Another prominent find type is represented by thrusting weapons: one-fourth of the currently known early Avar period corpus of these weapons from the Tiszántúl region was recovered from the Szegvár cemetery. All three early Avar period lance types occur among the weapons. The number and diversity of weapons used in close combat found in the burials is also outstanding, and they provide a firm basis for a regional analysis of the frequency and distribution of these arms. The form of quivers could be reconstructed from the remains found in two male burials, which provided important new details on the quivers of the early Avar period. Fragments of lamellar and chain mails play an equally significant role by adding to our knowledge of the period's armament. The position of the latter in the grave offered new perspectives on the interpretation of their function.

The various bone, wood and iron fittings and accessories discovered in the cemetery's horse burials provided exciting new information on early Avar period horsemanship, rooted in the earlier, steppean tradition. The custom of adorning bridles and cruppers with silver mounts and the horse harness reconstructed from the position of the mounts in the graves indicate that a new harness type began to be used in the Carpathian Basin.

Most of the cemetery's graves contained pottery and a significant number of wooden vessels were also found. The hand-thrown, funnel necked vessels covered with a thin clay glaze are typical not only for the Szegvár cemetery, but also for the grave pottery of other early Avar burial grounds in the Tiszántúl region. Samples from the soil inside the vessels were submitted to archaeobotanical analyses, during which the micro and macrofossil contents were also examined: the findings of these analyses provided new aspects for determining the function of various vessels.

The dating of the archaeological material

The cemetery's use-life could be determined through various analytical procedures that gave more-or-less congruent results. The seriation of female costume accessories and jewellery items such as beads, earrings and headdress ornaments and of the belt sets recovered from male burials, combined with the testimony of three Byzantine *solidi* minted between 616 and 625, and

the twenty radiocarbon dates for 14 burials, provided a fairly accurate range for the cemetery's use. This chronological framework could be further refined by examining the mortality patterns of the animal remains deposited in the graves and the pollen samples from the pottery vessels, which offered data on the season in which a particular funeral was performed.

After settling in the area in the wake of the Avar conquest, the community using the cemetery began burying its dead in three or perhaps four different locations of the cemetery. The continuous use of the burial ground lasted until the middle third of the 7th century, a date suggested by the currently known burials and two male burials, whose burial rite and finds differ substantially from those of the local population, and whose appearance in the Carpathian Basin is generally dated to the 660s.

Burial customs in the Szegvár cemetery

The characteristic traits of the early Avar period cemetery can best be grasped through the elements of the funerary rite observed in the graves. About one-half of the north-east to south-west oriented burials were shaft graves, and there were 151 end niche graves (with a niche recessed into one end of the grave pit; *Stollengrab*) and 94 side niche graves (with a niche recessed into the side of the grave pit; *Nischengrab*). About 60 burials were cenotaphs, i.e. symbolic burials without human or animal remains. The complete or partial remains of animals were recovered from 375 graves. In addition to the 7 complete horse burials, we found 79 cattle remains, 594 sheep and goat remains, and the remains of 118 skinned horses. In the case of partial animal burials, we observed an interesting practice: after skinning the animal, the limbs wrapped in the hide beside the skull were not removed at the joints, but were cut at the distal end of the radius and tibia. Sheep sacrum bones with the tail and lumbar vertebrae, always deposited beside the head, were found in 87 graves, obviously the remains of food offerings. Every fourth burial contained a vessel, meaning that pottery was recovered from over 100 graves. Most of these vessels had been placed at the head end of the grave pit together with the animal rump remains.

The findings of the related disciplines

Anthropology (Antónia Marcsik)

The proportion of adults was 38%, while the ratio of children and juveniles was 62%, reflecting an imbalance between the two major age groups. The proportion of infants and children was strikingly high (50%), suggesting that the cause of death was some grave infection rather than a deficient diet. The age at death among women was highest in the adult age group, and in the mature age group among men. The lower number of juveniles and the differences between the sexes (men: 37%, women: 63%) can perhaps be attributed to the taphonomic conditions and, possibly, to the cenotaphs.

The 32 female burials with distorted skulls accounted for 26% among the female burials. This percentage is only an estimate because the practice of skull distortion could not be conclusively established in the case of all individuals. The 32 cases represent 50% of the well-preserved skulls, and thus it is possible that the number of distorted skulls was higher.

The taxo-morphological analysis of the skeletal remains yielded the following results: 47% of the examined individuals were Europid, 25% were Mongolid and Europeo-Mongolid, while

28% represented individuals among whom Mongoid/Mongolid traits could be demonstrated to a smaller or larger extent. The latter series, especially the samples from the southerly areas of the Tiszántúl region, are either very small or poorly preserved, and the current record thus indicates that the early Avar period individuals from the Szegvár-Oromdúló cemetery represent a separate group.

Archaeozoology (István Vörös)

In addition to the assessment of the archaeological finds and the anthropological remains, the archaeozoological material from the Avar period cemetery at Szegvár was also evaluated, although not as part of this research project. The age and sex determination was complemented by the documentation of the morphological traits and their evaluation. The community using the Szegvár cemetery had an extraordinarily large animal stock, which meant a need for large pasturelands. The early Avar community settling at Szegvár enlarged its sheep, goat, cattle and horse stocks brought from the east with the domesticates of the local groups living in the region at the time of the Avar conquest.

II. The role of niche graves in the funerary rite in eastern Hungary and in the Carpathian Basin

During the assessment of various elements of the funerary rites practiced in the Szegvár cemetery, we strove to gather all the available evidence on the period's burial customs. We assembled a catalogue of the currently 700 early Avar graves from 127 sites in the Tiszántúl region, as well as a catalogue of the Avar period end niche graves (512 graves from 55 sites) and side niche graves (204 graves from 46 sites) known from the Carpathian Basin.

In addition to describing and assessing the various elements of the funerary rite leaving an imprint in the archaeological record, we also compared the funerary rite practiced at Szegvár with the burial customs documented in contemporaneous burial grounds used by other communities in order to discover similarities and divergences between them. We found that the most typical traits of the funerary rite practiced at Szegvár — the alignment of the deceased to the east or the north-east, the partial animal burials, the unique skinning technique, the spatial separation of the deceased and the animal remains in the shaft graves and both types of niche graves, the deposition of food offerings (sheep sacrum) and the placement of vessels near the head of the deceased — were fairly widespread during the early Avar period in the Tiszántúl region and, also, that the rite practiced in this region differed significantly from the burial customs documented in other major regions of the Carpathian Basin.

The east to west and north-east to south-west orientation of the deceased, the occurrence of partial animal burials, the deposition of grave pottery and the custom of placing a sheep rump by the head suggest that the greater part of the Tiszántúl region was occupied by a population sharing common traditions and practicing similar burial customs. At the same time, the fact that both types of niche graves only occur in the territory between the Körös and the Aranka rivers suggests certain differences within the population occupying the region. Interestingly enough, the distribution of niche graves along the Tisza and the Maros corresponds to one of the central areas of eastern Hungary during the Gepidic period.

Good parallels to side niche graves are known from the 6th century Eastern European steppe, while end niche graves have no counterparts in Eastern Europe. In contrast to the shaft graves and the side niche graves of the Tiszántúl region, none of the end niche graves can be securely dated to the last third of the 6th century. The grave goods deposited into the end niche graves do not differ from the types encountered in other burials.

The comparison of the age, sex, morphological and metrical traits, and pathological deformations of the deceased interred in end niche graves in three major cemeteries (Szegevár-Oromdűlő, Pitvaros-Víztározó and Székkutas-Kápolnadűlő) indicated that there were no differences between the three series, suggesting that this funerary rite cannot be correlated with any anthropological traits.

We submitted samples taken from 44 end niche graves uncovered in three Avar cemeteries in the southern Alföld to mtDNA analyses (14 samples from the 151 end niche graves of Szegevár-Oromdűlő, 7 samples from the 7 end niche graves of Pitvaros-Víztározó and 23 samples from the 59 end niche graves of Székkutas-Kápolnadűlő) in order to examine whether there was any genetic connection on the maternal line between the deceased buried according to the same rite. Unfortunately, the DNA isolates were of poor quality and often contained an unreadable or mixed DNA stock, and thus the comparison could not be performed. The results of the analyses can nonetheless form the basis of an mtDNA database for the Avar period.

The distribution of end niche graves in the later Avar period clearly shows that the study area was the core area of this burial practice. The early Avar cemeteries were abandoned and the new burial grounds with end niche graves were opened in more peripheral areas, indicating an eastward shift in their distribution. The appearance of end niche graves north of the Körös rivers, west of the Tisza, in the Danube-Tisza Interfluve and along the right Danube bank reflects a minor population movement. The grave goods deposited in the end niche graves found in the cemeteries opened and used during the later Avar period show few typical early Avar traits. At the same time, some elements of the early Avar funerary rite (such as vessels placed beside the head and the deposition of sheep rumps) still occur sporadically in the newly-opened cemeteries. New elements in the burial rite are reflected by the number and composition of the animal offerings, changes in the practice of animal skinning, the disappearance of partial horse burials, the appearance of harness deposition and, not least, the alteration of the orientation of the deceased. Compared to the preceding period, there is a blend of earlier and later elements, reflecting both a new period and a change of mindset in the Avar period.

While the use of side niche graves disappeared in the area enclosed by the Körös, Tisza and Aranka rivers during the later Avar period, graves of this type appeared north of the Körös, in the Danube-Tisza Interfluve and in Transdanubia. Although graves of this type have been documented in twice as many burial grounds as in the early Avar period, their overall number declined compared to the preceding period. The form of the later side niche graves differs from the type of the early Avar period and other elements of the funerary rites of the early Avar period can no longer be noted in them.

The funerary rites observed in the early Avar graves of the Tiszántúl region are not part of the legacy of a population of steppean Avar ancestry. Similar niche graves are known from several regions of the southern Russian steppe, representing the early, 6th century phase of a find horizon known as the Sivashovka culture. The information contained in the historical sources

suggests that population groups from eastern Europe and the southern Russian steppe were also swept into the Carpathian Basin with the Avar migration. The funerary rites practiced in the Pontic region and the early Avar period of eastern Hungary share many similarities, suggesting that these population groups settled in the Tisza region.

Data of the prepared manuscript:

- catalogue of the graves and the grave goods of the Szegvár cemetery: 46.9 author's sheets (1,877,000 n),
- catalogue of the currently known early Avar period cemeteries and graves in the Tisza region: 1.5 author's sheet (58,000 n),
- catalogue of the Avar period end niche graves of the Carpathian Basin: 1 author's sheet (37,000 n),
- catalogue of the Avar period side niche graves in the Carpathian Basin: 0.7 author's sheet (28,000 n),
- assessment: 8.5 author's sheets (337,000 n),
- 501 illustration pages (drawings, photos, maps, tables).

Although not part of the research project funded by the OTKA grant, various analyses were performed on the studied material by the following specialist:

- description and assessment of the beads from the cemetery: Adrien Pásztor (Budapest),
- description and assessment of the pottery finds: Dr. Tivadar Vida (Institute of Archaeological Sciences, ELTE BTK, Budapest),
- description and assessment of the cemetery's cutting and thrusting weapons: Gergely Csiky, PhD (Archaeological Institute, MTA BTK, Budapest),
- archaeobotanical analysis of soil samples from the grave pottery: Ferenc Gyulai, PhD (Institute of Environmental Sciences, Szent István University, Gödöllő).
- analysis of micro and macro-fossils in soil samples from the grave pottery: Dr. István Bagi (Department of Ecology, SZTE, Szeged),
- description and assessment of the archaeozoological material from the cemetery: Dr. István Vörös (Hungarian National Museum, Budapest)
- description and assessment of the egg remains from the cemetery: Beáta Tugya (Nagykanizsa),
- radiocarbon analysis and assessment of samples from the graves with coins: Peter Stadler, PhD (Naturhistorisches Museum, Wien)
- radiocarbon analysis and assessment of samples from the Szegvár cemetery and four cemeteries in the Tiszántúl region (Section of Environmental and Earth Sciences, MTA Institute for Nuclear Research, Debrecen; Radiocarbon Laboratory, Poznan; Prähistorische Abteilung, Naturhistorisches Museum, Wien),
- assessment of the radiocarbon measurements of samples from 45 Avar period graves in the Tiszántúl region: Gábor Lőrinczy (Móra Ferenc Museum, Szeged) and Zsuzsa Siklósi, PhD (Institute of Archaeological Sciences, ELTE BTK, Budapest)

Szeged, January 28, 2013

Gábor Lőrinczy