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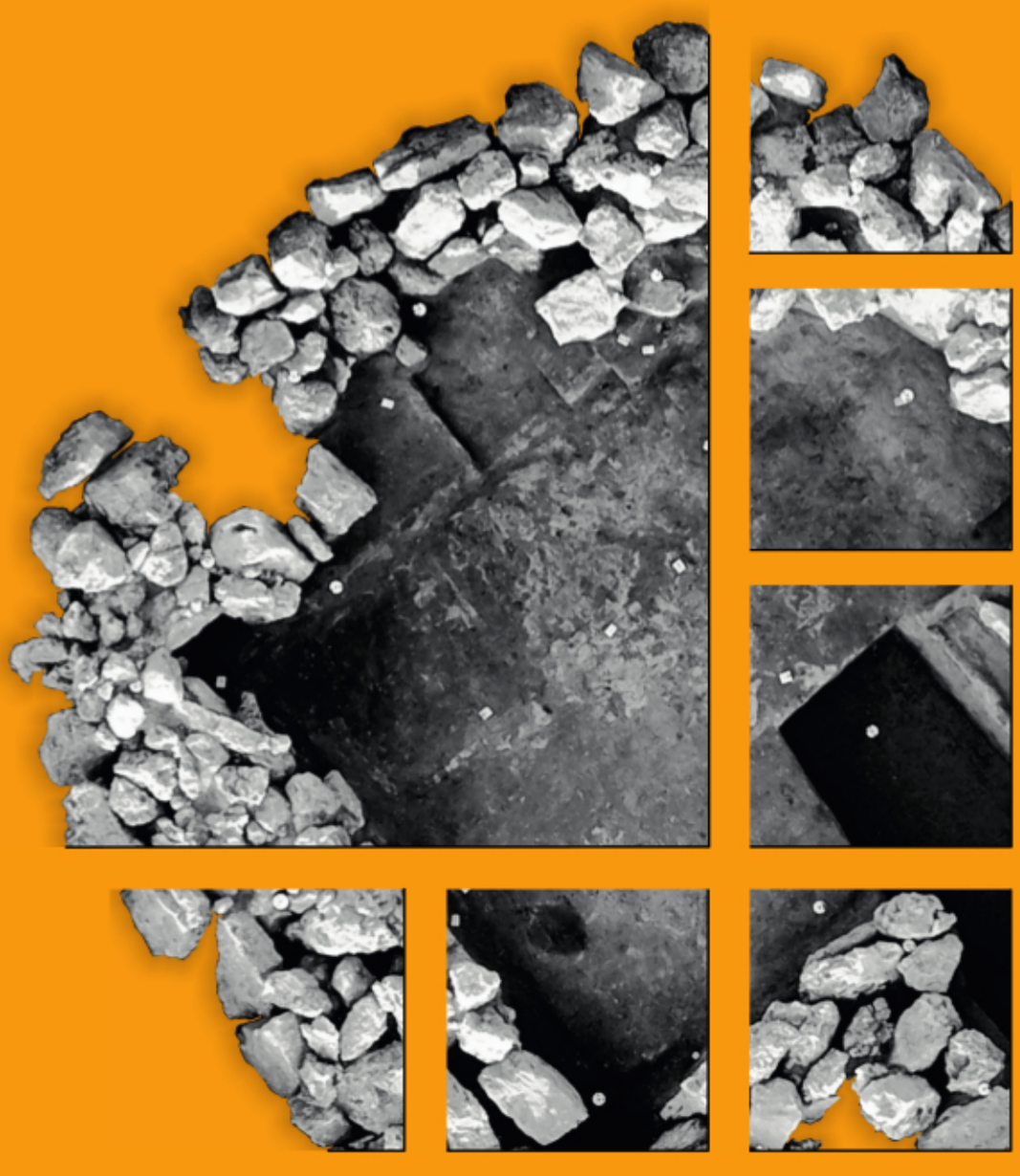

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Short report on the archaeological research of the burial mounds no. 64. and no. 49 of Érd-Százhalombatta

Gabriella T. Németh
Matrica Museum
tnemethgabriella@matricamuzeum.hu

Zoltán Czajlik
Institute of Archaeological Sciences
Eötvös Loránd University
czajlik.zoltan@btk.elte.hu

Katalin Novinszki-Groma
Institute of Archaeological Sciences
Eötvös Loránd University
groma.kata@gmail.com

András Jáky
Institute of Archaeological Sciences
Eötvös Loránd University
jakyandras@gmail.com

Abstract
Lying on the fringes of the eastern Hallstatt culture, the tumulus cemetery at Érd-Százhalombatta is one of the earliest identified archaeological sites in Hungary. The first map of the site was made in 1847; the number of mounds registered at the time (123) did not change substantially until the end of the 20th century. The aerial archaeological investigations, which began in 2001, and the magnetometer geophysical survey of 2012 led to the identification of 103 ring ditches, which probably mark the location of formerly undocumented Early Iron Age burials. The aim of the test excavations in 2013–2014 was to expose and date the newly identified, circular phenomena at and near to Tumulus no. 64. In 2015–2016, at Tumulus no. 49, our goal was to unearth a heavily damaged mound with a burial chamber, as it was indicated by the magnetometer geophysical surveys.

Previous research

The topographical research history of the tumulus cemetery at Érd-Százhalombatta has been summarized in the recently.[1] The earliest mentioning of the site as *centum montes* is from Anonymous[2], but its name also appears in the form *Zazholm* in the chronicle of Simon Kézai chronicle around 1283.[3] The first topographic survey was carried out by János Varsányi in 1847[4], and the first map prepared on the basis of aerial photographs was published by Dénes Virágh and István Torma in 1986 *(Fig. 1)*.[5] The aerial photographic investigations of the tumulus field for archaeological purposes was started by István Gersi in 1934[6], followed by René Goguey in 1993.[7] From 2001, aerial photography was performed by Zoltán Czajlik as part of a cooperation between the Eötvös Loránd University and the Matrica Museum.[8] The

1 Czajlik et al. 2016
2 Szentpétery 1937, 95.
3 Szentpétery 1937, 149.
4 Varsányi 1847.
5 Torma 1986, 228–231.
6 Holl – Czajlik 2013, 25, fig. 2.
7 Goguey – Szabó 1995, 20, fig. 65.
8 Czajlik 2008.

magnetometer geophysical survey of the tumulus field began within the frames of the same research program in 2012-2014. By the end of 2016 the combined use of remote sensing methods surprisingly resulted in the discovery of over a hundred features, which can be interpreted as remains of perished barrows, or grave gardens with circular ditches around them (?), among and outside the borders of the formerly known 123 barrows *(Fig. 2)*. A detailed analysis of the data on the known mounds is also very important, because based on the geophysical surveys it appears that not all barrows were surrounded by a ring ditch in Százhalombatta, while it has also been verified that not every mound had a significant burial chamber.[9]

The exact number of burial mounds excavated since the 1840's is unknown, but at least 18 mounds are concerned of which the largest number (eight) was unearthed by Ágnes Holport between 1978 and 1996.[10] However, investigations of the tumuli did not mean their complete excavation: in the 19th century, a trench cutting across the entire mound was only opened in the case of Tumulus no. 120, while the field documentation from the 20th century indicates that with the exception of Tumulus no. 115, investigations focused solely on the central part of the mounds. In sum, this means that we have information on the structure of no more than 15% of the known mounds, and this information is essentially restricted to the central burial zone.

Excavations at Tumulus no. 64 and its surroundings *(Fig. 3)*

The test excavation of 2013[11]

On 14–26 October 2013, a planned sondage excavation was carried out at the well-known tumulus field of Érd-Százhalombatta on lot no. 062/89 in Érd,. The excavation took place in a continuously cultivated area between Érd and Százhalombatta, on the western side of the dirt road (Battai Road), which connects the two towns. The flattening effect of the cultivation is clearly visible on the still detectable mounds. The aim of the excavation was the archaeological research of the phenomena (including a circular ditch), which were detected with aerial archaeological research by Zoltán Czajlik in 2001–2012, and with a magnetometer geophysical survey by Sándor Puszta in 2013. We also investigated how the archaeological remains of Tumulus no.64 – known from the survey of 1847 and the aerial photographs – compare with the magnetic map.

During the excavations, a total of 72 m^2 surface was revealed in two trenches. In Trench no. 1 a 2 m long section of the ring ditch was unearthed on the eastern side of Tumulus no. 64. The slipped layers of the mound could be observed above the filling of the ditch. East of the ditch a barely detectable, 1.5 m diameter round pit was discovered with a few Iron Age ceramic sherds and animal bones (damaged by the loessal soil) in its filling. On the northeastern side of the pit, 65 cm deep from the surface, a cremation burial came to light without any contour of the gravefill *(Fig. 4)*. The remains of the burial, which was certainly disturbed by ploughing, could be observed in an area of approximately 2 × 1 m. Cremated human bones, pieces of a square-edged vessel and small bronze objects were collected from here, which date the burial to the Early Iron Age.

9 Czajlik et al. 2016

10 Luczenbacher 1847, 282–289., Holport 1985, 1986, 1996

11 The excavations were funded by the NKA grant 3234/00247.

In the 2 m wide Trench no. 2, which was located close to the dirt road, only a 30–35 cm thick humus layer was observed, followed by the yellow loess subsoil. After removing the topsoil manually, contours of a greyish filling were observed in the subsoil on the eastern and also on the western side of the circular ditch (Ring Ditch no.1), which was detected previously with magnetometer geophysical survey *(Fig. 5)*. Several layers were observed in the filling of the 130 cm wide, 70 cm deep eastern section of the ditch; also some Middle Bronze Age, and a higher number of Early Iron Age sherds were found. The western section had similar dimensions and contained Early Iron Age pottery as well.

The test excavation of 2014[12]

For the excavations on 1–19 September 2014, our trenches were positioned near to the ones from the previous year. In 2014 frequent and heavy rains made the field work more difficult. With Trench no. 3 our aim was to investigate the center and the northern section of the Ring Ditch no. 1. After the machine-made removal of the humus layer, the surface was cleared by hand. The filling of Ring Ditch no. 1, which became visible at a depth of approximately 40 cm from the surface, was unearthed in a 2.5 m and a 4 m section. Several small Early Iron Age sherd concentrations were found in the northern part of the trench. On the current top of the filling of Ring Ditch no. 1, which was observed directly beneath the ploughed humus layer, sherds from several large Early Iron Age vessels came to light *(Fig. 6)*, which were broken on the spot. One cremated human bone fragment was also among these sherds.

Trench no. 4 was located in western direction from Trench no. 1 in 2014. Our goal was to explore the middle of Tumulus no. 64, for a possible central burial. In the central area only a few Early Iron Age vessel fragments were found, showing no connection with any features, in a brownish discoloration of the yellow loess subsoil. A 2 m long section in the western part of the ditch encircling Tumulus no. 64 has also been excavated, which yielded a small amount of Early Iron Age ceramic sherds.

Soil micromorphological samples were also collected by Gabriella Kovács (Matrica Museum) from both 2014 trenches, from the section wall of the ring ditches *(Fig. 7)*. Soil samples were taken also during the 2013 and 2014 excavations from certain features, as well as from the lower levels of the ring ditches from several locations. Furthermore,e magnetometer geophysical surveys were also carried out during the excavation of 2014, at a depth of approximately 50 cm.

The research[13] of Tumulus no. 49

Based on the experience from the geophysical surveys and sondages, the excavation of a standing, still visible burial mound was carried out in 2015–2016. Our aim was to document the relationship between the encircling ditch and the mound construction, as well as the finer details of the mound layers and the burial chamber.

Based on aerial archaeological investigations and geophysical magnetometer surveys, the mound of Tumulus no. 49 was well-observed, the broad ditch encircling it was perfectly identifiable. In addition, the outlines of a rectangular structure stood out in the highest, central

12 The excavations were funded by the NKA grant 3234/00247.

13 The excavations were funded by the following grants: NKA A2008/N7960 and NKFIH 111058.

part of the mound. The material of the structure was implied by the large number of limestone pieces on the surface.

Excavations in 2015

A planned excavation was carried out on lot no. 062/47 in Érd between 31 August and 18 September 2015. Our aim was to verify the data on the rectangular structure in the center, and the circular phenomenon of approximately 40 m diameter around Tumulus no. 49 (presumably an encircling ditch), which were collected by remote sensing techniques and field walking. In recent years, small and large pieces of limestone and the yellow material of the mound have continuously been detected in the center of the tumulus on the surface. This suggests that the continuous ploughing demolishes the mound and already reached its stone construction. The owner of the lot has removed a peach plantation by machine power around 2004 and cultivated the field as plough land ever since.

In 2015, after the sunflower crop was harvested, a 20 m long base line was determined near to the northeastern border of lot no. 062/47 which runs approximately in the middle of the mound, and field work was only permitted on the southern side. After that, the whole excavation area was divided into 1 × 1 m units, which were named with the combination of a number (referringing to the nearly north-south oriented columns) and a capital letter (referring to the rows). The mound was leveled, along and south to the base line, on which basis a contour measurement map was made by András Bödőcs and András Jáky.

In the higher, central area of the mound, where a rectangular construction, presumably the burial chamber was indicated by the magnetic map, a 3 × 4 m trench was set out. The northeastern wall of the trench was fitted to the base line. Already in the ploughed top-soil, modern and Early Iron Age ceramic sherds, as well as cremated bone fragments, patinated bronze flakes and several pieces of limestone were detected. Larger stones in original position, partly leaned against each other could have already been observed at a depth of 20 cm in the eastern part of the trench. In the western part, at a depth of 15–75 cm only a little amount of smaller stones, but several concentrations of finds (cremated bones, Early Iron Age ceramic sherds, melted bronze drops) were found, most likely in connection with a disturbed burial. On the last day of the excavation, a large amount of partially matching Early Iron Age ceramic sherds was explored at the base of the large stones, including a horn-handled bowl. West of the large stones (presumably not moved out of their original context) at a depth of 70–74 cm a yellow, loamy layer was found, that was conditionally interpreted as the bottom of the chamber.

Another 2 m wide and 21 m long trench was set in 2015, running along with the base line, east of the trench in the center. In this trench the brown, grey and yellow layers of the mound could be followed for 8 meters from the stone construction. At furthest from the burial chamber, a yellow, loamy material could have been the barrier layer, which was observed for example at the excavation of Tumulus no. 115 conducted by Ágnes Holport.[14] In the eastern side of this long trench, at a depth of 60 cm from the current surface the outlines of the encircling ditch became visible on the exact location indicated by the magnetic survey indicated. The bottom of the phenomenon was reached at a depth of 230 cm, after cutting several dark brown layers

14 Holport 1999, 306.

in the filling of the ditch which could be dated by a small amount of Early Iron Age ceramic sherds *(Fig. 9)*.

In the end of September 2015, when the excavation was already finished and the trenches were filled back, Balázs Nagy (Eötvös Loránd University, Department of Physical Geography) surveyed Tumulus no. 49 with an Ejkelkamp hand-held drill. The 19 drilling points fell in two orthogonal, 50 meter long line, which crossed eachother in the middle of the burial chamber. The results from the shallow drillings showed a similar stratigraphic situation as was experienced at the excavation.

Excavations in 2016

The owner of lot no. 062/47 has continued the cultivation of the field between the campaigns: the mound was sown with wheat, which was harvested by the time of the second excavation of Tumulus no. 49, taking place between 29 August and 27 September 2016. This year, our goal was to explore the entire area of the burial chamber, therefore a 7 × 7 m trench was positioned on the basis of the magnetic map to cover the whole stone construction. During the excavation, an almost north-south oriented, 1 m wide section wall was left in the middle of the trench until the last weeks of the field work.

During the 2016 excavation, remains of an approximately 3.4 × 3.4 m size, square-shaped structure with wooden construction revealed itself, which was stuck around with stones in a 7 m diameter circle. The large blocks of stones were often sticked up on their shorter side, leaning against the outer wall of the maximum 70 cm high wooden construction in 3–4 rows, without any mortar or binder. Only traces were preserved from the wooden construction, therefore its original height can only be deduced from the height of the stone construction. Stones are missing from a short section on the western side of the ring, which could have been the entrance to the chamber *(Fig. 8)*. Inside the construction, in a 2 × 2 m area near to the entrance, cremated human bone fragments, sherds in secondary position, remains of a vessel with geometric painting and melted drops from burnt bronze objects were found. Based on the finds, Tumulus no. 49 is the same age as the previously researched mounds of the Érd-Százhalombatta tumulus field, that is the Ha C2/D1 period, specifically the second half of the 7th – beginning of the 6th century BC.

On the outside of the stone construction, different layers in the material of the mound could be observed, similarly to the results of the 2015 excavation. Beneath the mound material, a thin stratum with small stone fragments (presumably the construction surface) was observed on a layer specified as the Early Iron Age humus. In connection with the excavation Gabriella Kovács (Matrica Museum) carried out detailed soil micromorphological sampling, and also collected flotation samples in large quantities. A fragment of the wooden construction of the chamber structure could also be saved, identified by Ildikó Vincze (ELTE Paleontology Research Group) as oak timber *(Fig. 10)*.

Summary

During the excavations in 2013–2014, Tumulus no. 64 and its surroundings were researched on a surface ofapproximately 175 m^2 in four trenches. The previously unknown 'Ring Ditch

no. 1' proved to be an Early Iron Age phenomenon, although an associated burial could have not been observed. Stratigraphic data could be collected from the excavated sections of its encircling ditch, however burial remains could not be identified in the central part of Tumulus no. 64. At the same time a disturbed, Early Iron Age burial without any contour of gravefill but with bronze and ceramic finds was found east fo the mound.

Based on the field walkings which were carried out during the magnetic surveys, the newly identified phenomena most likely belong to the Early Iron Age, which was also confirmed by the 2013–2014 excavations. However, evidence for a burial in the central zone of the ring ditches could not be documented, which may be due to the high level of land erosion. On the other hand, remains of cremation burials alongside or on the top of the filling of the ditches could be identified several times. This rite is not unknown in the territory of the Eastern Hallstatt culture, however, to our knowledge, these were the first documented cases in nearly 170 years of research history of the Érd-Százhalombatta tumulus field *(Fig. 11–12)*.

The excavation of Tumulus no. 49 in 2015–2016 yielded important information for the understanding of the phenomena observed on aerial photographs and magnetic maps. The relationship between the encircling ditch, mound and burial chamber could be documented in detail. Furthermore, the structure of the mound (as it could be observed on aerial photographs) became exactly comprehensible, as well as the stone construction of the burial chamber, as it was visible on the magnetic map. Unfortunately, exact observations on the rite of the burial could not have been made due to the disturbance caused by modern, and maybe former activities. Based on our primary observations the fragmented find material can be fitted into the cultural and chronological frameworks which were set by the previous tumulus excavations in Százhalombatta, from both typological and chronological point of view.

The find material was transported to the Matrica Múzeum in Százhalombatta. The scientific processing of the material and publication of the results in the form of studies, maybe exhibitions, will come to fruition with the collaboration of the participating researchers. The excavations were conducted by Zoltán Czajlik and Gabriella T. Németh; the participants were Péter Mali, László Rupnik, Katalin Novinszki-Groma, András Jáky and András Bödőcs archeologists; Bence Soós, Katalin Szarvas (MA), furthermore Árpád Balog, Márk Lőrinczy, Rebeka Gergácz and Enikő Lajtár (BA) students in archaeology; and Zsuzsa Lehoczki historian, as well as Éva Spánitz and Szilvia Szabó (Matrica Múzeum).

References

Czajlik, Z.: Aerial archaeology in the research of burial tumuli. *Communicationes Archaeologicae Hungariae* 28, 2008, 95-107.

Holl B. – Czajlik Z.: Where are all the tumuli? In: Czajlik, Z. – Bödőcs A. (eds): *Aerial Archaeology and Remote Sensing from the Baltic to the Adriatic. Selected Papers of the Annual Conference of the Aerial Archaeology Research Group, 13th-15th September 2012, Budapest, Hungary.* Budapest 2013, 25-31.

Holport, Á.: Ásatások Százhalombattán 1978-1982 (Előzetes jelentés) / Ausgrabungen in Százhalombatta 1978-1982 (Vorläufiger Bericht). *Studia Comitatensia* 17, 1985, 25-62.

Holport, Á.: Questions in connection with recent excavations at Százhalombatta. *Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften Beiheft 3* (Budapest 1986) 93-98.

Holport, Á.: Építészeti emlékek az Érd-százhalombattai kora vaskori halomsíros temetőből / Architectural remains in the Tumulus cemetery of Százhalombatta. In: Poroszlai, I. (ed.): *Ásatások Százhalombattán 1989-1995 / Excavations at Százhalombatta 1989-1995.* Százhalombatta 1996, 34-42.

Holport, Á.: Theoretical and practical problems of reconstruction in the case of an Iron Age tumulus. In: Poroszlai, I. – Jerem, E. (eds): *Archaeology of the Bronze and Iron Age. Proceedings of the International Archaeological Conference Százhalombatta. 1996.* Archaeolingua, Budapest 1999, 303+308.

Goguey, R. – Szabó, M.: *L'histoire vue du ciel. Photographie aérienne et archéologie en France et en Hongrie. – A történelem madártávlatból. Légi fényképezés és régészet Franciaországban és Magyarországon.* Budapest 1995.

Luczenbacher, J.: A pogány magyar sírok körül tett felfedezések. *A Magyar Tudományos Akadémia Értesítője* 7, 1847, 282-289.

Szentpétery, E.: *Scriptores Rerum Hungaricum I.* Budapest 1937.

Torma, I.: *Magyarország Régészeti Topográfiája 7. Pest megye régészeti Topográfiája. A budai és a szentendrei járás.* Budapest 1986.

Fig. 1. Map of the Érd–Százhalombatta tumulus cemetery from 1986 (after Dénes Virág and István Torma).

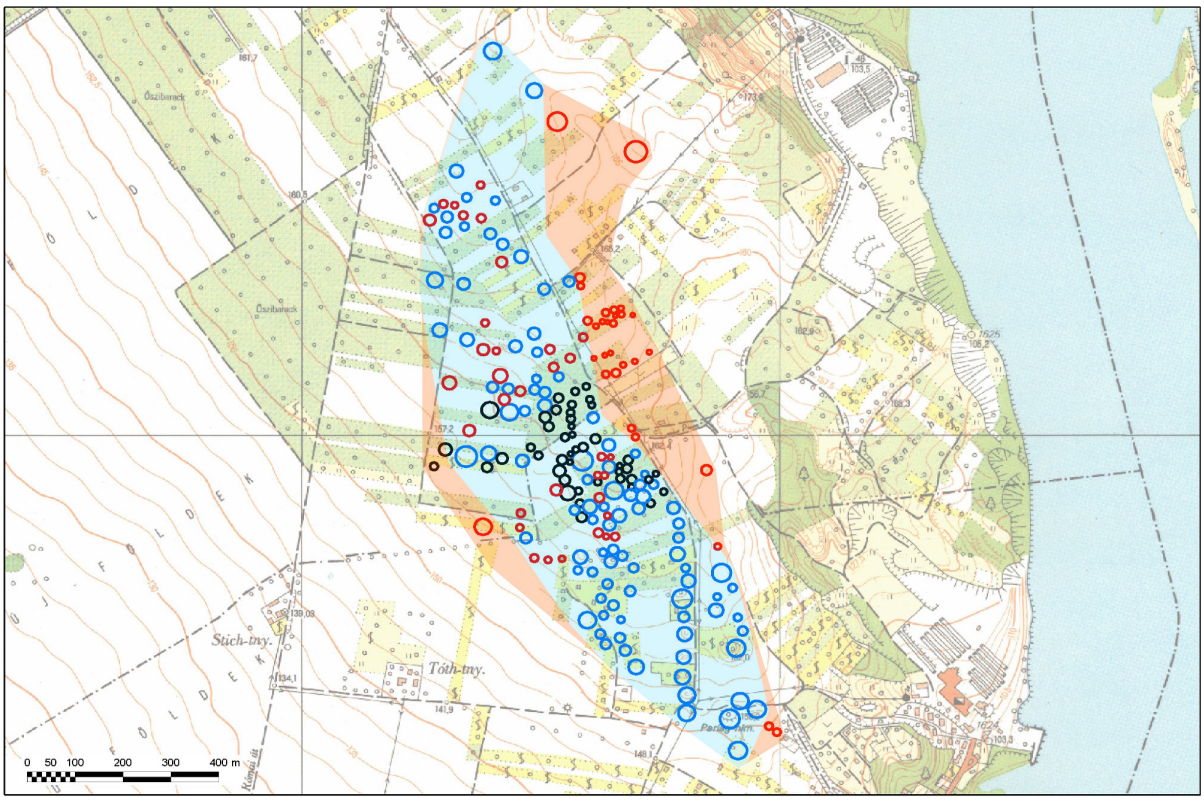

Fig. 2. Extent of the Érd–Százhalombatta tumulus cemetery in 1986 (blue) and 2014 (red). Combined tumulus data from old survey maps (blue), aerial archaeological photographs (red) and magnetograms (black; Balázs Holl, Zoltán Czajlik and Sándor Puszta)

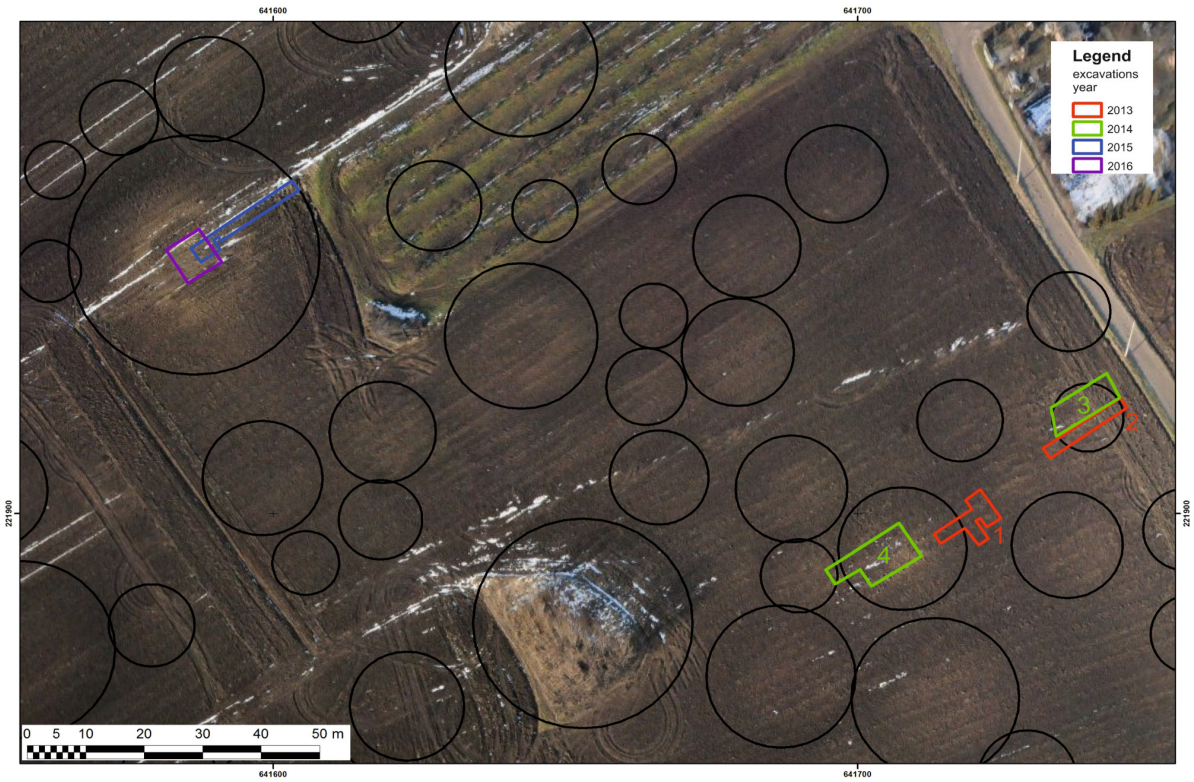

Fig. 3. Locations of the excavations in 2013-2016, fitted on a georeferenced aerial photograph (aerial photograph: Zoltán Czajlik, fitting and setting: Balázs Holl, measurements: András Bödőcs, Lőrinc Timár).

Fig. 4. Remains of a cremation burial east to Tumulus no. 64. (Photograph: Gabriella T. Németh).

Fig. 5. Unearthed section of Ring Ditch no. 1, identified through magnetometer geophysical survey. (Photo: Gabriella T. Németh).

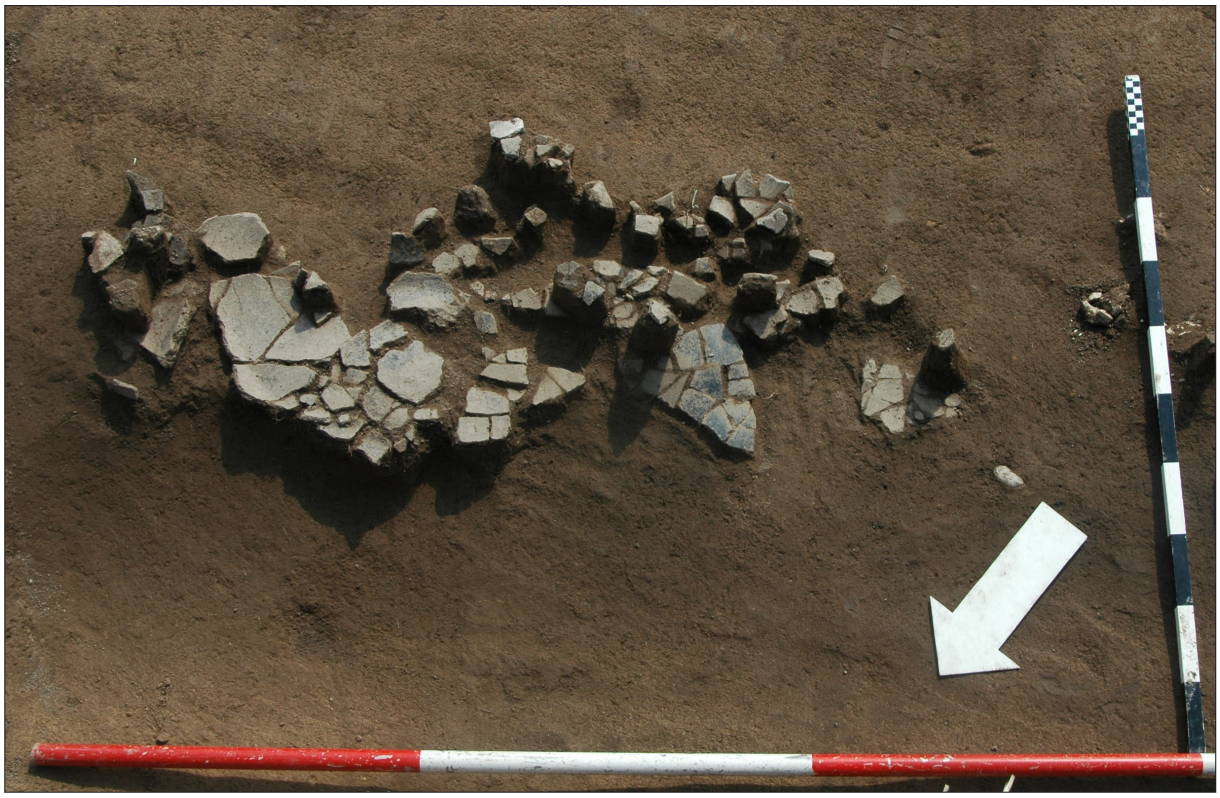

Fig. 6. Disturbed remains of a large, Early Iron Age vessel on the current top of the filling of Ring Ditch no. 1. (Photo: Zoltán Czajlik).

Fig. 7. Micromorphological sampling (Gabriella Kovács, Matrica Múzeum) from the section wall of the encircling ditch of Tumulus no. 64. (Photo: Zoltán Czajlik).

Fig. 8. Unearthed burial chamber of Tumulus 49 in 2016. (Drone photo: László Rupnik).

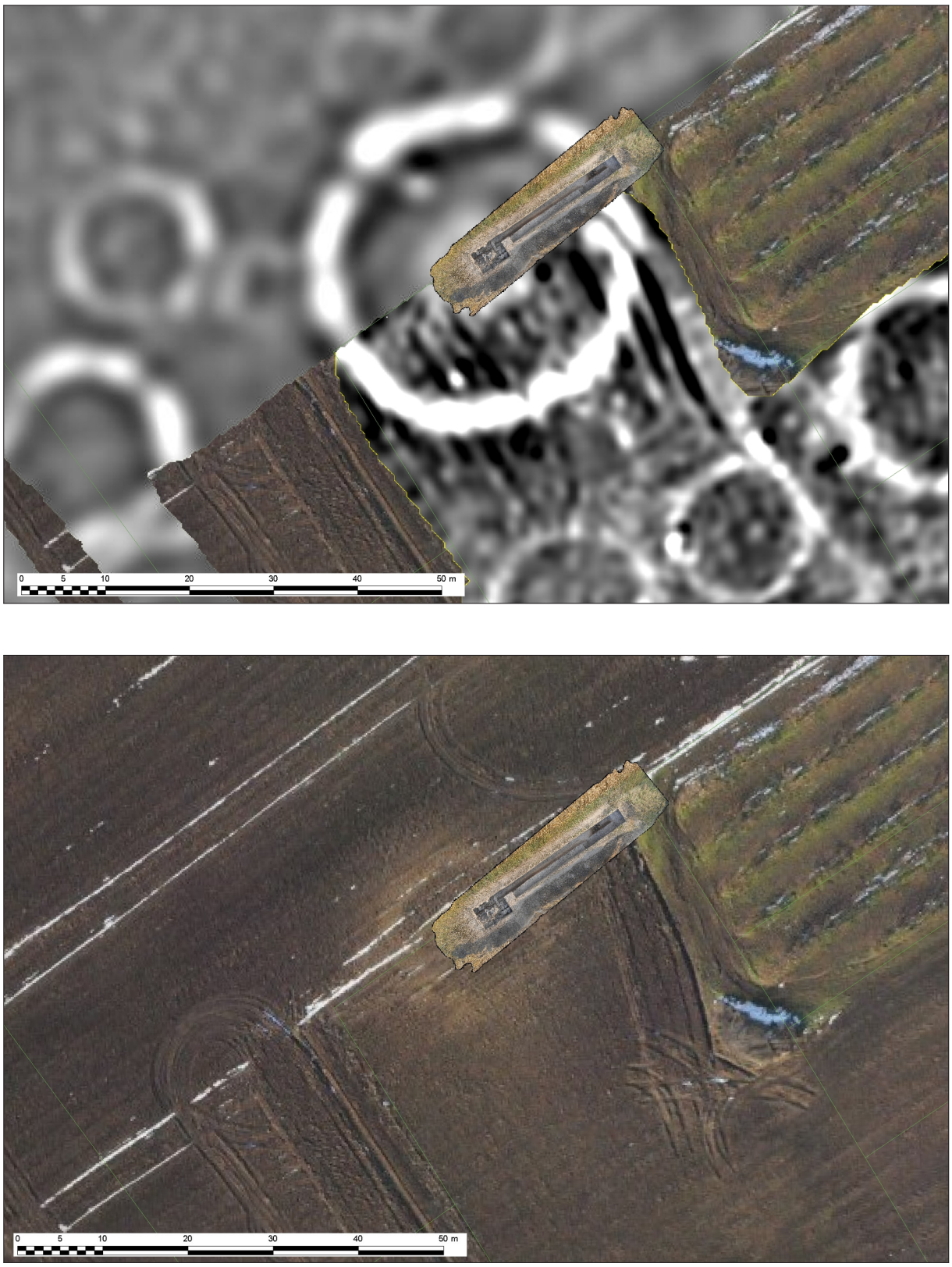

Fig. 9. 3D picture of the 2015 excavation at Tumulus no. 49, with the magnetic map (above), and with the georeferenced aerial photograph (below) in the background. The encircling ditch is more visible on the magnetic map, while the brighter discoloration of the mound can be observed on the aerial photograph (Balázs Holl, Sándor Puszta, Zoltán Czajlik).

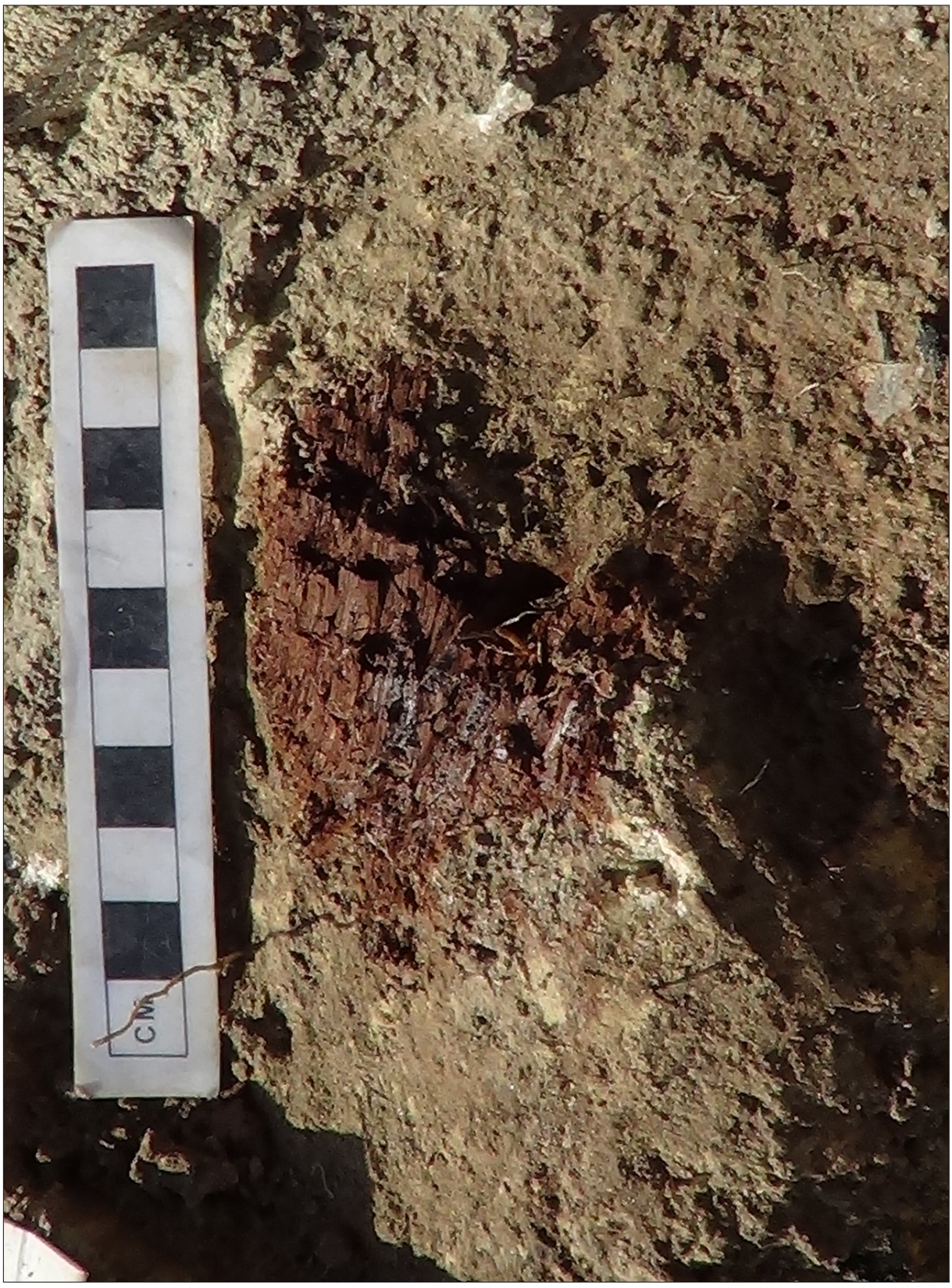

Fig. 10. Oak timber remains from the wooden structure of the burial chamber in Tumulus no. 49. (Photo: Zoltán Czajlik).

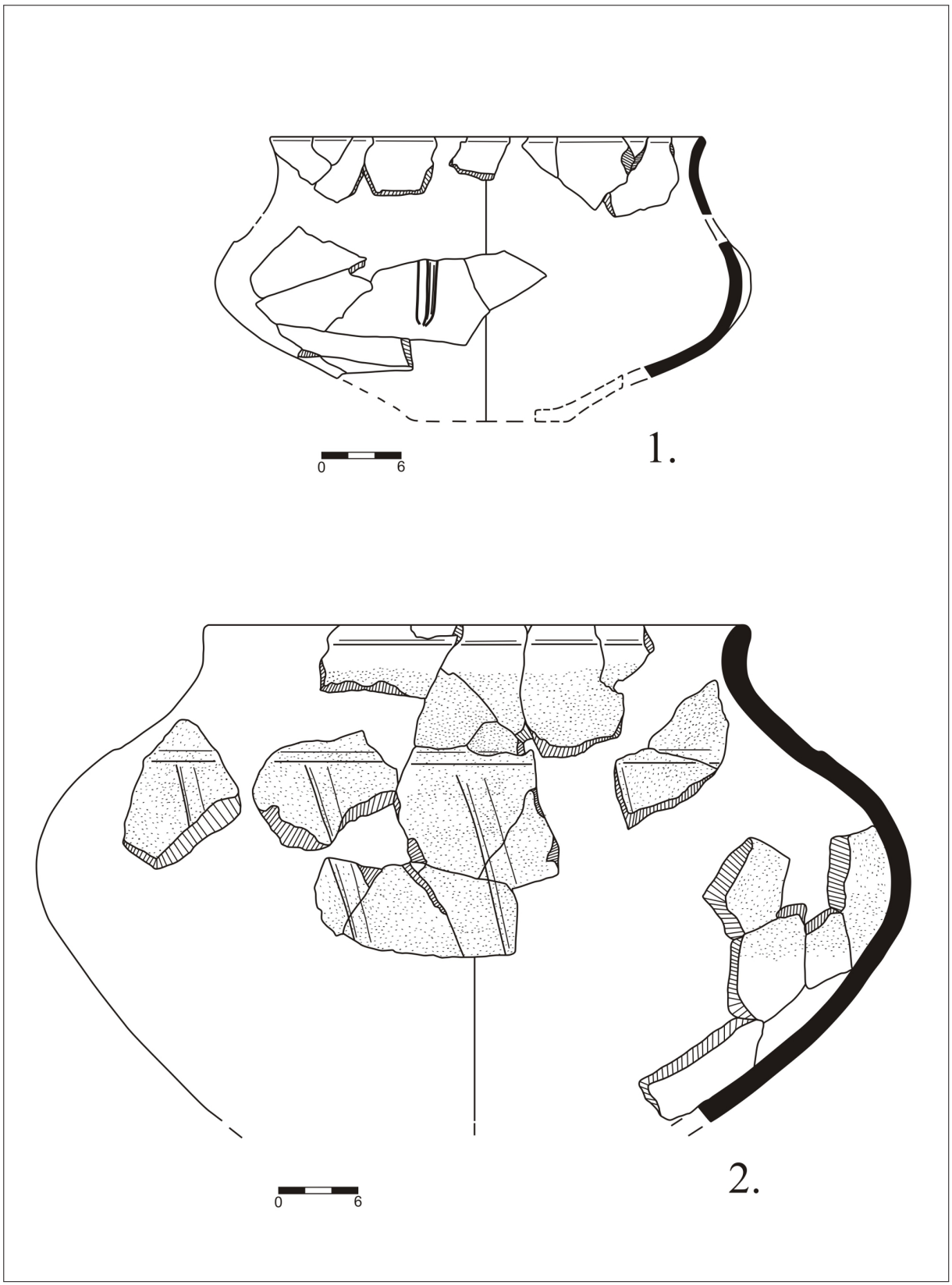

Fig. 11. Deep bowls reconstructed from their pieces from the 2013 year excavation. 11/1: from the cremation grave; 11/2: from 'Ditch no. 1' (Drawing: Gabriella Lakatosné Pammer (restorer); Gabriella T. Németh (archaeologist), Matrica Museum; Plate: Katalin Novinszki-Groma).

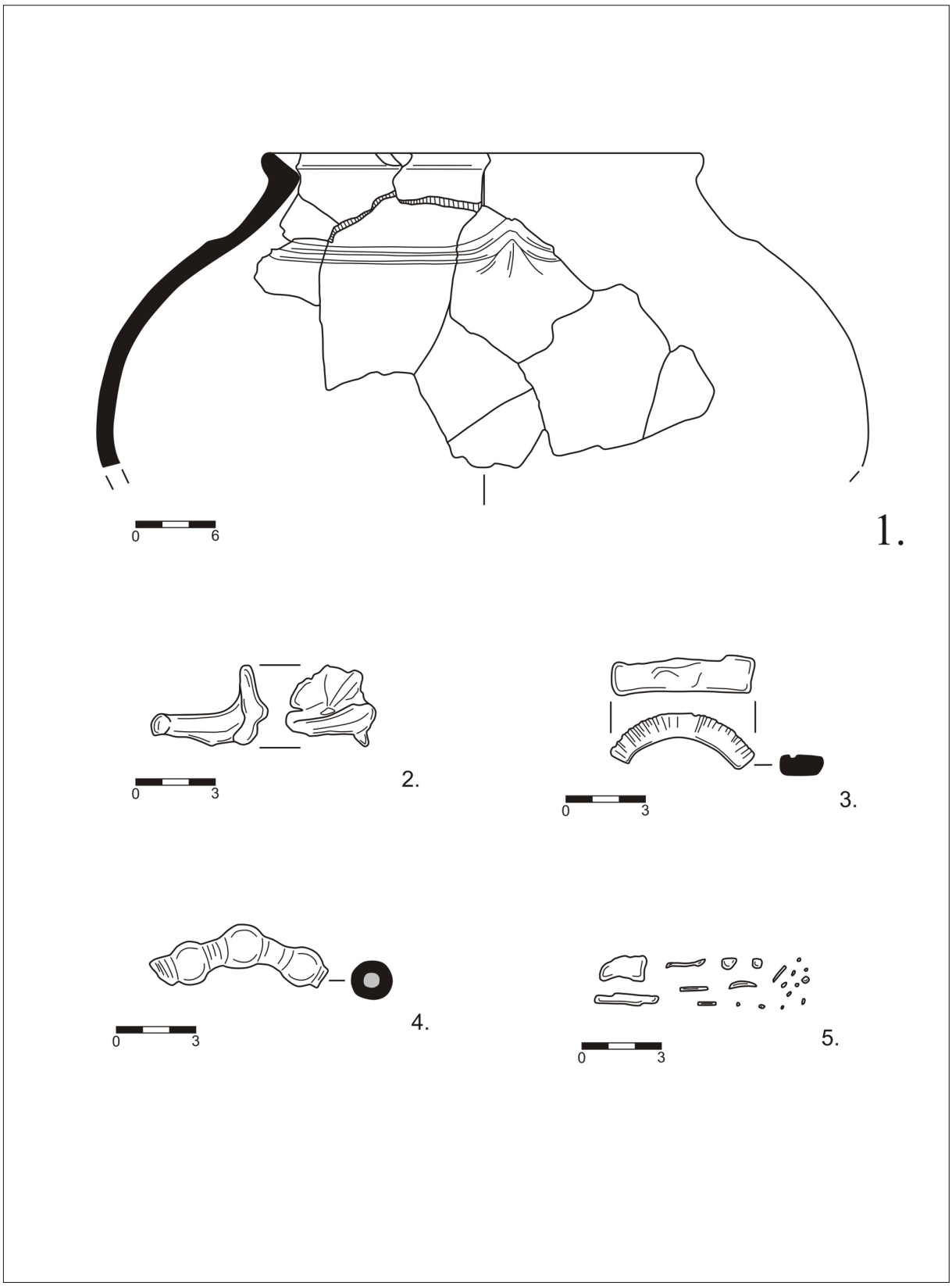

Fig. 12. Deep bowl reconstructed from its pieces and deformed bronze object from the excavation of 2013. 12/1: from surrounding of the cremation grave; 12/2-5: from the cremation grave (Drawing: Gabriella Lakatosné Pammer (restorer); Gabriella T. Németh (archaeologist), Matrica Museum; Plate: Katalin Novinszki-Groma).