

THE CRADLE OF A PREHISTORIC CIVILISATION. A neolithic site at Sé

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During 2019–2021, County Vas altogether six archaeological sites were investigated in the territory of the historical Vasvármegye (Vasvár County), three on each side of the border between Austria and Hungary. The project was realised as part of ArcheON (INTERREG V-A AT-HU 121), a joint archaeological and turistical programme by the Turismusverband Südburgenland, the Amt der Burgenländischen Landesregierung, the Savaria Museum, and the Savaria Tourism Non-profit PLC. One of the selected sites was Sé–Malomi-dűlő, the research of which thus gained new momentum after almost twenty-five years. The project involved more than excavations for the sites: touristic programmes (Fig. 10) were organised, and investments were also realised.

Keywords: Late Neolithic, Lengyel culture, settlement, enclosure system, County Vas

GEOGRAPHICAL SETTING AND CLIMATE

Sé lies only six kilometres away from the Austrian state border, at the western fringes of Szombathely in Vas county, Western Transdanubia (Hungary; Fig. 1). The site's location, Malomi-dűlő (“Mill Field”) got

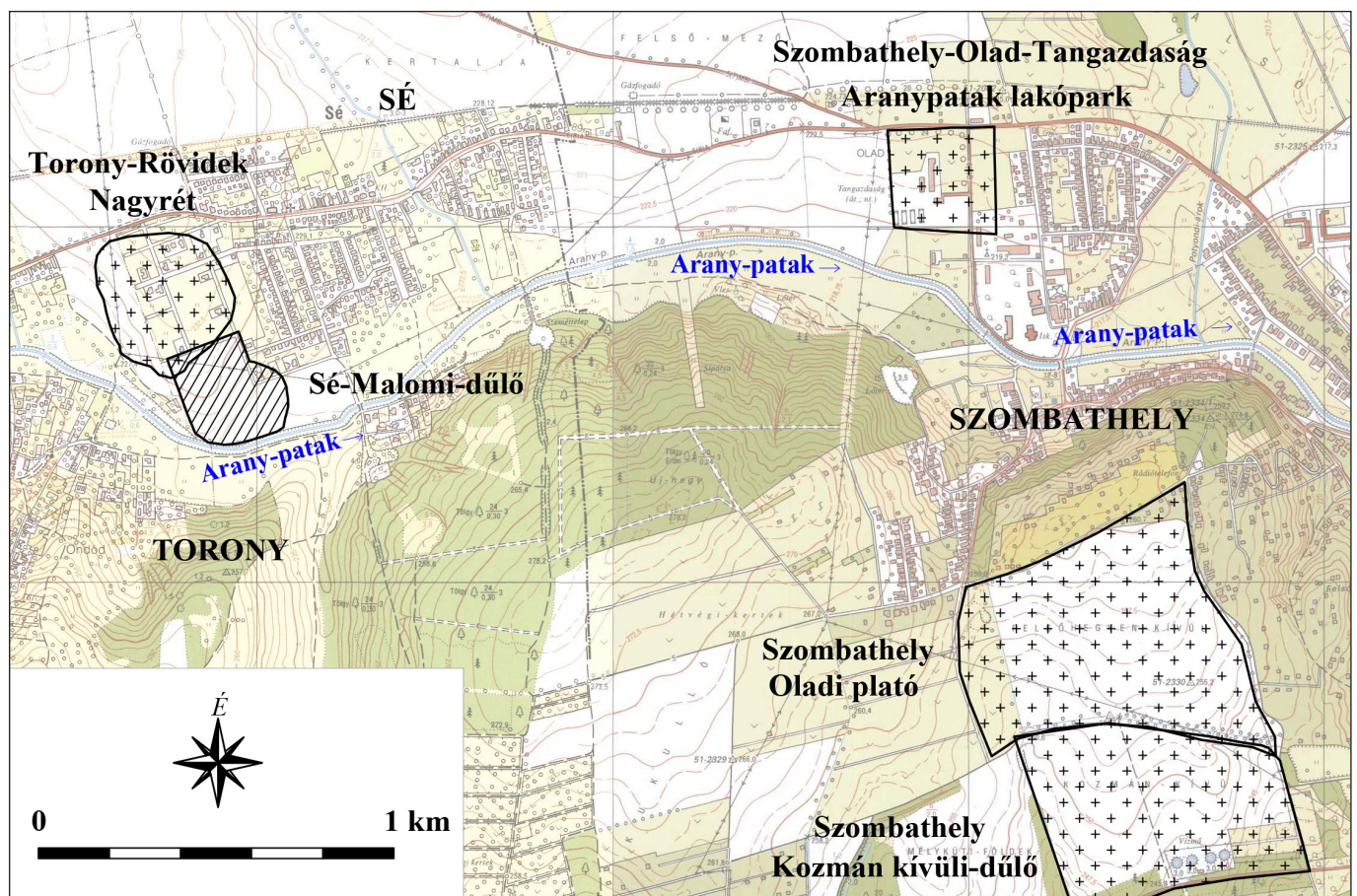


Fig. 1. Eastern segment of the Arany stream's valley (by Viktor Seres)

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its name from a former mill, today, a residential building. Geographically, the area is situated in the Western Transdanubia macroregion, the *Alpokalja* (Prealps) mesoregion, and the Pinka Plain microregion. The site is positioned on a somewhat elevated plain stretching between the Arany Stream (marking the settlement's southern fringes) and the Kőszeg Mountain Range. The area's moderately cool and wet climate is determined by a relative proximity of the Atlantic Ocean and the Adriatic Sea. Annual precipitation in the area is one of the highest in Hungary, and the natural water network is dense; thus, droughts are rare even in summer. Due to the proximity of the Alps, winds are mainly northern. The land is usually covered by brown woodland soil and closed forests (DÖVÉNYI 2010, 361–364; KÁROLYI 2018, 28–32).

HISTORY OF RESEARCH

The archaeological record of Sé links the site to the formative phase of the Late Neolithic Lengyel culture (5000–4300 BC) in the first place. The site became known in 1971; the first excavations were conducted by Mária Károlyi in 1973 and 1974 (by opening a new section in the second year). Next, Nándor Kalicz from the Institute of Archaeological Sciences of the Hungarian Academy of Sciences joined the project, and in 1975 the first sections of the enclosure system became unrevealed. Approximately 10% of the site was excavated in consecutive field sessions until 1980. A further trench was opened in 1990, while in 1995 and 1996, the investigations focused on the enclosure system by cutting through the area engirded by ditches. Most features discovered were dated to the Linear Pottery and Lengyel cultures, respectively, but the works also brought to light a Middle Copper-age long house, some Early Bronze-age pottery, three Early Iron-age pits, a wall of a Roman-period *villa*, and an Árpáadian-age oven (KÁROLYI 2018, 39–40; SM RA² 1239-97). The Ministry of Culture and Education granted the site the status of “protected area of historical and archaeological significance” in 1991, while the National Office of Cultural Heritage granted it special protection in 2004 (SM RA 1535-03; 1760-04).

The recent investigations started with a fieldwalking session on 7 September 2020 and a magnetometer survey on 9 September. The excavation was carried out between 21 September and 20 October. During that time, volunteers of the Savaria Museum conducted a metal detector survey of the area, recovering several metal finds from the Roman Period. The session concluded with a georadar survey on 4 November.

GEOPHYSICAL SURVEY

The magnetometer survey involved a total area of 24,188 m², while the georadar survey only concerned 7,149 m² of the already surveyed part. The research revealed the existence of a second double ditch system around the already known enclosure of the Lengyel-culture settlement. The area inside the ditches is densely covered by archaeological phenomena, which appear more scattered outside the enclosures. *Längsgrubes*, pairs of elongated ditches stretching along the longhouses' long walls, were observed in great numbers. Based on their positions, we could identify the places of several houses, two of which superposed the ditches. We have also observed the traces of recent earthworks in the northern part of the surveyed area; it was identified as one of the former excavation trenches (*Fig. 2*).

EXCAVATION

When selecting a place to excavate, we tried to avoid multi-period areas where features of later historical periods had likely destroyed Neolithic phenomena and also to steer away from the sections of previous excavations. Finally, we decided upon investigating the remains of a building the form of which seemingly preserved Middle Neolithic traditions. As our research focused on the Early Lengyel phase in the first place, the choice was fairly risky – but worked. Our bounds limited us to excavating only a part of the 10x20 m building, and we decided to open a single uninterrupted trench of 12x2 m (*Figs. 2, 14*). The position of the small excavation trench was calculated to cover the area where, based on the geophysical survey, two

² Archaeological Databank of the Savaria Museum.

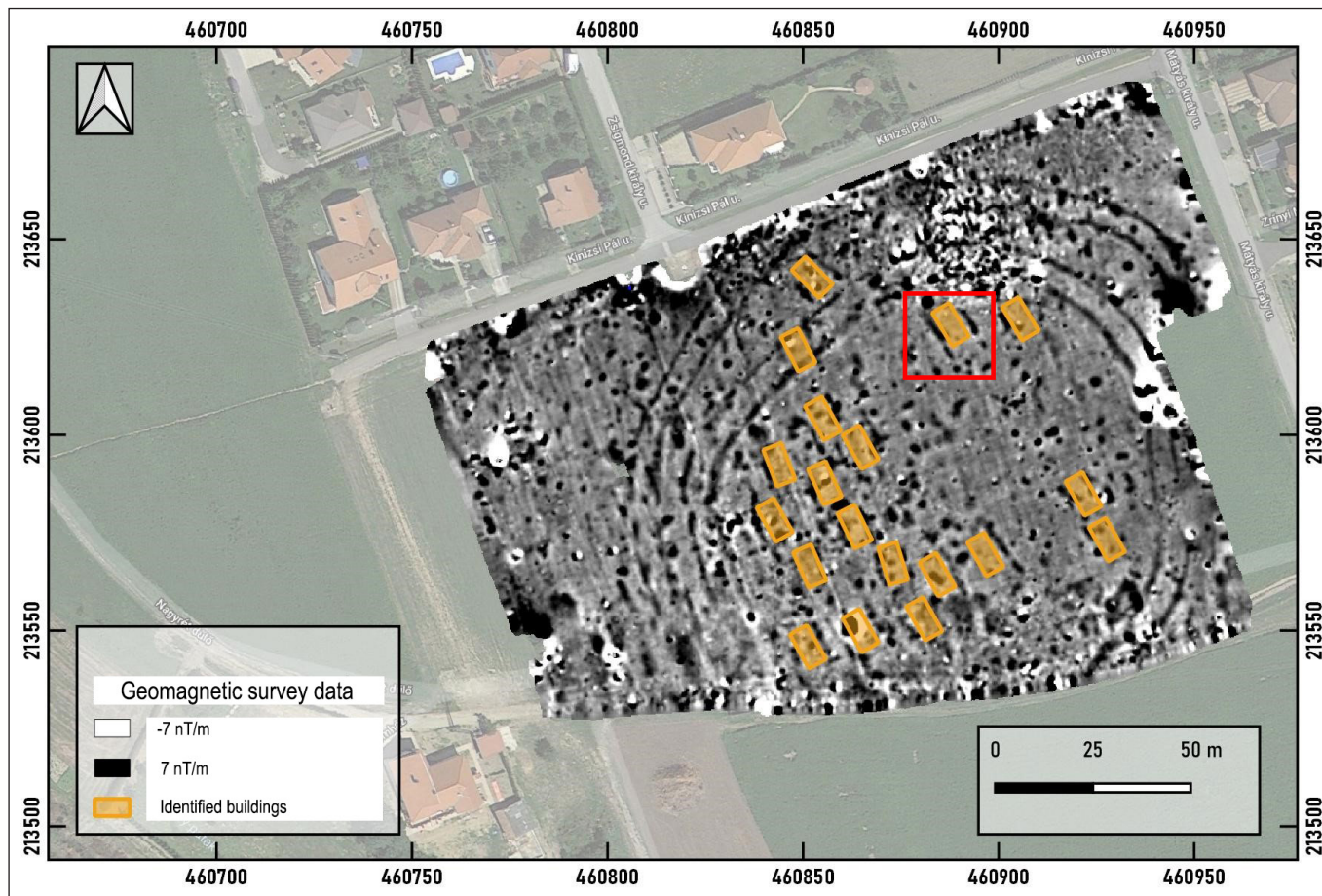


Fig. 2. kép. Geophysical survey map of the site with the identified buildings (by Máté Stibrányi)

separate parts of a *Längsgrube* (Feature 2020/4) meet. Furthermore, we figured the trench would allow us to examine the relative chronological relations of the supposed building and another pit (Feature 2020/3; Fig. 12). We could only hope that the pit is not a relic from a later historical period. The line of the southern profile was designed to cut through a posthole (presumably of the longhouse next to the *Längsgrube*) and the house's eastern *Längsgrube* (Feature 2020/2; Fig. 11). The excavation area was covered by a 1x1 m grid, and the find material was collected accordingly. We used delicate methods only to remove soil (Figs. 3–4), but, despite the meticulous work, we could not observe layers. Therefore, we worked with artificial layers upon documenting findspots; everything was surveyed geodesically, and no mapping was made by hand.



Fig. 3. Excavation of the humus layer in a 1x1 m grid (photo by László Kolonits)



Fig. 4. Reaching the level of archaeological phenomena (photo by László Kolonits)

POTTERY FINDS



Fig. 5. Painted pottery from Sé collected by previous excavations (photo by Tamás Tárczy, Savaria Museum)

Fine ware has an almost porcelain-like quality; even delicate “eggshell-pottery” fragments of vessels with only couple-of-millimetre thick walls are not infrequent. The types include S-profile curved cups, bowls, and shouldered vessels. Coarse ware (pots and containers) was made of gravel-tempered clay. Ceramic spoons and ladles appear among the finds, while miniature vessels and small ceramic balls perhaps served as children’s toys. Most vessels were fired reductively (KALICZ 1998, 62–63; KÁROLYI 1982). In general, incised patterns and nail impressions are rare, and fine ware was usually decorated by post-firing (pastose) painting (KALICZ 1998, 63–65). The elaborate multi-colour patterns display the unique skills and taste of the makers, also providing today’s audience with a unique aesthetic experience (Fig. 5).

Károlyi classified the patterns into eight distinct groups comprising geometrical, stylised, and textile-impressed variants. The lavishly painted vessels were probably made for special occasions, and the patterns conveyed specific messages to them (KÁROLYI 2011, 123–172). The 2020 excavation yielded relatively few painted sherds, mainly from the lower layers. The colours included red and yellow; the most frequent variant was a red cover on the outer side of the vessel rim.

FIGURINES

Another characteristic of the Late Neolithic record of Sé is the relatively large number of human representations or *idols* made of clay. Based on their unique design not lacking artistic qualities, these figurines are classified as the “Sé type” by research, with analogies in the territory of several neighbouring countries. Altogether 141 figurines were known from the site, and our excavation yielded a new one (Fig. 6, found in Feature 2020/4). The statuettes are usually 20–25 cm high. Most got into the ground fragmented as a result of a specific breaking rite or one the aftermath of which (desacralisation phase) involved their breaking. An elaborate specimen of the type, found in 1976, was named “Venus of Sé” (Fig. 7). The type represents a transition between the figurine types of the Balkans and Central Europe. The head is round, with elaborate incisions marking the hairdo, the eyebrows, and the eyes. The nose is marked by a small knob, but a mouth is scarcely depicted. The neck is long, and the upper body is proportionate with a narrow waist, round breasts, and horizontal stubs (if anything) for the arms. The bottom is round, and the feet are simple conical stumps. The figurines were usually coated in red, the



Fig. 6. Figurine fragment from Feature 2020/4 (photo by Tamás Tárczy, Savaria Museum; inv. no. Ó.2021.4.163)



Fig. 7. The “Venus of Sé” and the anthropomorphic vessel (photo by Tamás Tártsy, Savaria Museum; inv. no. Ő.81.1.4447–4448)

colour of life and blood, and used perhaps in fertility rituals. In many cases, the decoration of the figurines incorporates markings of clothing (belt, apron, or skirt) and accessories (necklace; KALICZ 1998, 65–73; KÁROLYI 2018, 56–75). Jewellery items – round clay and polished cylindrical stone beads – are also known from the site’s archaeological record (KÁROLYI 2004, 18). The 1978 excavation yielded a unique anthropomorphic vessel (Fig. 7). The 30 cm high vessel was carefully put to the bottom of a pit; its find circumstances suggest intentional depositing. Fragmented analogies are known from Sé and Sormás in Hungary, Eggendorf am Walde in Austria, and Brezovljani in Croatia (KALICZ 1998, 72–73; KÁROLYI 2018, 62–63, 309–311).

We do not know animal figurines from the site’s record but sometimes come across applied representations of animal heads or birds on vessels (KALICZ 1998, 73). For example, a cattle head representation fragment was recovered from Feature 2020/2, and we also found, in Feature 2020/3, a ves-



Fig. 8. Vessel fragment with applied cattle head representation from Feature 2020/2 (photo by Ákos Lelkes, Savaria Museum; inv. no. Ő.2021.4.290)



Fig. 9. Vessel fragment with applied bird representation in situ in Feature 2020/3. (photo by Ákos Lelkes, Savaria Museum; inv. no. Ő.2021.4.20)

sel fragment with a small bird figurine (its head missing) sitting on the rim (*Fig. 9*). (Jokingly, I named the find “Nestor’s cup” in the field diary). This bird figurine has two known analogies from the site (KÁROLYI 2018, 128, 171–172, 231, 235); it is worth noting that all three pieces’ heads are missing. An intact figurine is known from Boskovštejn in Moravia (PODBORSKÝ & ČIŽMÁŘ 2008, 215).

OTHER FINDS

Star-shaped finds of unknown purpose are a regular type in Lengyel-culture records. Only a single specimen was known from Sé before (KALICZ 1998, 73; KÁROLYI 2018, 109), but we found a fragment of another in 2020. The archaeozoological material obtained in the course of previous excavations has remained unprocessed save for the samples recovered from Feature 24 (KÁROLYI 2018, 34). Based on that, the faunal spectrum incorporated cattle, roe deer, red deer, European hare, and European beaver. The archaeozoological material, including animal bones, bone tools, and shells, collected in the 2020 field session, is under processing. The meticulous excavation yielded many knapped stone artefacts made mostly from radiolarite from the Bakony Mountain Range (Transdanubia) and flint from Tevel (Mecsek Mountain Range, Southwestern Hungary). Their abundance disproves former hypotheses related to their rare occurrence on the site. However, the most beautiful lithic find of the 2020 excavation was a stray find: a Copper-age chipped stone arrowhead.



Fig. 10. Local schoolchildren from Sé and Torony visiting the excavation (photo by Péter Balázs)

THE ENCLOSURE SYSTEM

The earliest circular ditches in the Carpathian Basin are known from sites of the Linear Pottery Culture. However, the phenomenon has only become an essential part of the culture’s toolkit in the time of the Lengyel Culture. Approximately 150 Late Neolithic enclosures are known today, of which the ones at Sé and Sormás are amongst the earliest (P. BARNA 2017, 156–160). More than twenty ditch systems are known from Hungary and Slovakia, respectively, and several from Moravia. Most enclosures – about one in every three – are located in the territory of Lower Austria; their dating ranges between 4850 and 4500 cal BC. Neighbouring cultures adapted the idea of creating enclosure systems, and the custom persisted for about another 200–300 years (KOVÁRNÍK 2008, 25–27; NEUBAUER 2017, 276–297).

Every known enclosure system is unique. Some are in the centre of settlements, while others, on the periphery (LENNEIS 2017, 267–269). Regional differences can be observed in their frequency and character: the related structures in Southern Transdanubia are usually more grandiose and complex compared to other regions (BERTÓK & GÁTI 2014, 17–21). In the territory of Austria, the average diameter of single-ditch structures is 40–50 m, of double-ditch systems 60–90 m, while of triple-ditch systems 100–120 m (NEUBAUER 2017, 287–293). The other known coeval enclosure system in County Vas, i.e., the one in the surroundings of Ikervár, fits this system. Ikervár has a 70x85-m double-ditch enclosure completed by three concentric palisade lines inside. The ongoing survey of the site includes geophysical surveys and geological coring.

The structure of the newly discovered outer double ditch in Sé is akin to the inner, and the palisade walls completing both are also similar. However, the two ditches are not necessarily parallel everywhere (*Fig. 2*), which might suggest a chronological difference between the two. It is even possible that one was established after the other had been filled up, i.e., that no more than two ditches were visible in any phase. Enclosure systems comprising four or more ditches are rare anyway: a few are known in Lengyel-culture sites at Biksárd in Upper Hungary (today Cífer in Slovakia) and Southern Transdanubia and on Stichband

territory in Saxony (NEUBAUER 2017, 288). The ditches of Sé have “V” profile (*Spitzgraben*); the inner one is 3 m wide and 2.5 m deep, while the outer one, seven metres away, is 2 m wide and 1–1.2 m deep. The two ditches and the accompanying palisade wall form an approximately 15 m wide structure. An entrance was located in the north-eastern part and perhaps there is a bridge in the northern area (KALICZ 1998, 58–59; KÁROLYI 2004, 60–61; 2018, 44–48). The diameter of the inner double ditch is about 120 m, and the enclosed area is 1 ha. The outer double ditch is about 160 m in diameter, covering a 2 ha area in total.

The primary function of the enclosure systems, the creation of which involved moving thousands of cubic metres of soil, is still disputed. Their characteristics exclude protective function (NEUGEBAUER-MARESCH 1995, 88–90; BERTÓK & GÁTI 2014, 20), just as the fact that the area inside is usually empty. Sé is somewhat different in this respect as settlement features were scattered in abundance inside the enclosure; however, according to N. Kalicz, those might belong to a younger settlement phase. His hypothesis seems to be confirmed by stratigraphic observations: the settlement seems to have expanded over the ditches at some phase. Based on analogies in Austria, Lengyel-culture settlements may survive the dismantling of the enclosure system by 100–200 years. It seems obvious to interpret these enclosures as marking the border of a *temenos*, a sacred space with its own rules where those of everyday life do not apply. Such places served as occasional venues for community meetings and rituals. The special finds and assemblages often clustering inside enclosures may firm up the hypothesis of their sacral role. Furthermore, there is a growing body of evidence of enclosure systems having oriented according to key astronomical elements, perhaps because their function was connected to agricultural rituals; thus, they may have been ancient calendars as well (KALICZ 1998, 57–62; NEUBAUER 2017, 276–297).

THE SITE

The Malomi-dűlő settlement was special in its own time, and its significance for the research of prehistory in Central Europe today is also unique. It was the first Lengyel-culture enclosure discovered in Hungary and the first site to yield Lengyel-type post-firing painted ware in County Vas. Sé–Malomi-dűlő became eponymous with a phase of a Late Neolithic archaeological culture and a figurine type. Being situated in the area where the Lengyel complex emerged, it is one of the approximately twenty-five earliest sites of the culture. The abundance of *idols* in the archaeological record also reflects the special position of the site. In this respect, only a few similar (and roughly coeval) sites are known from the territory of the Lengyel culture: Těšetice-Kyjovice in Moravia, Unterpullendorf (Alsópúlya in Hungarian) in Burgenland, Austria, and Szombathely–Oladi plató, a settlement where we found hundreds of figurines in 2005–2008 (ILON 2011b; KALICZ 2007, 13; KOVÁRNÍK 2008, 26).

With a total extension of about 6–7 hectares, the Lengyel-culture settlement of Sé is average in size (KALICZ 1998, 57). The magnetometry survey revealed, in the area concerned, about twenty longhouses (outlined only by the accompanying *Länggrubes*) of similar direction, with everyday settlement features (storage and waste pits, ovens) between them. In addition, Károlyi reported particular well-like pits from the settlement. In her opinion, these were probably linked to ritual activities and perhaps coeval with the enclosures (KÁROLYI 2018, 51).

The connection network maintained by the settlement community can be best outlined based on the lithic record. The raw materials of most lithic finds originate in either the Kőszeg Mountain Range (Western Transdanubia), the Vas Hill (*Eisenberg* in German, an elevation west of Szombathely, on the Austro-Hungarian border), the Borostyánkő Mountain Range (*Bersteiner Gebirge* in German, part of the Styrian Prealps in Austria), or the Bakony Mountain Range in Transdanubia. However, some lithic materials were transported there from hundreds of kilometres away. The contact route of which Sé also was part may be interpreted as a distant predecessor of the European Amber Road connecting the Balkans and Central Europe. These contacts have also become manifested by find material distribution: sherds typical to the Adriatic Danilo and Hvar cultures occur in the archaeological record of Sé, while the Sé figurine type spread over an extended area (KALICZ 1998, 69; KÁROLYI 2018, 34, 49).

CHRONOLOGY

In the site's relative chronological system by M. Károlyi, Phases 1 and 2 refer to the Linear Pottery Culture, Phase 3 to the Early Lengyel Culture (also referred to in related studies as Sé-, formative, or Ia phase of the Lengyel Culture), Phases 4 and 5 to the rest of the Lengyel Culture, and Phase 6 the Copper Age Balaton-Lásinja Culture (KÁROLYI 2018, 50). Torony–Rövidek, a Linear Pottery-culture settlement right next to Sé–Malomi-dűlő, situated on the same northern terrace of the Arany Stream, could be its direct predecessor. We unearthed the remains of three longhouses there in 2007 (ILON 2011a; 2013).

The end of the Lengyel-culture settling at Sé–Malomi-dűlő is yet to be clarified. In N. Kalicz's opinion, the community abandoned the settlement and moved to Szombathely–Oladi-plató, only 2 km away, around 4700 BC (KALICZ 2007, 14). M. Károlyi, however, found Late Lengyel-type pottery on Sé (KÁROLYI 1992, 48–58; 2018, 50). Whether or not a part or all the population of Sé relocated to the Oladi plató, we must assume a link between the two sites. The survival of the local population into the Early Copper Age (Lengyel III) in the area was proven in the case of two sites, each on either side of the Arany Stream. The preventive excavations carried out preceding the construction of the *Aranyptak Lakópark* ("Golden Stream Residence") at Olad-Tangazdaság and the creation of the Dozmat Reservoir at Szombathely–Oladi-plató and Kozmán-kívüli-dűlő, respectively, brought to light settlements with the foundation trenches of one-time buildings (Fig. 1).



Fig. 11. Artificial layer DOF-7 with finds in the eastern Längsgrube (Feature 2020/2; photo by Ákos Lelkes)



Fig. 12. Artificial layer DOF-9 with finds in the pit (Feature 2020/3; photo by Ákos Lelkes)



Fig. 13. Artificial layer DOF-6 with finds in the western Längsgrube (Feature 2020/4; photo by Ákos Lelkes)

The first radiocarbon data from Sé was measured by ATOMKI in Debrecen in 2002. The sample was a single piece of charcoal from Early Lengyel context, and the result indicated a dating for the last quarter of the 6th millennium BC (KÁROLYI 2003, 272). In 2021, we took two animal bone samples from each of the three pits excavated in 2020. The samples were processed by the CEZA Laboratory in Mannheim (Figs. 11–15). The results dated the two Längsgrubes between 4882–4730 cal BC (68% probability) and suggested, in accordance with our relative chronological observations, the third pit being several decades older.

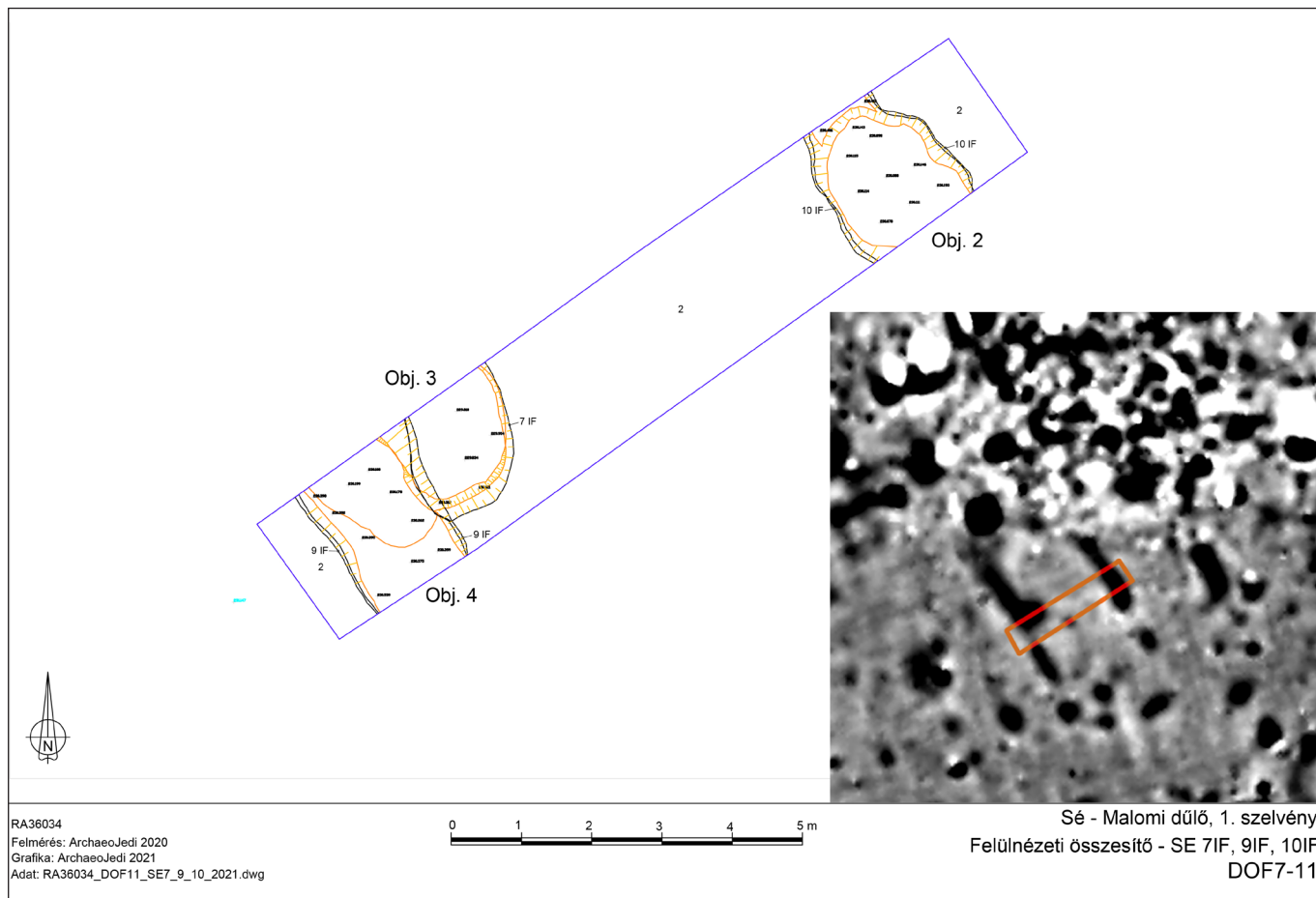


Fig. 14. Survey map of the 2020 excavation trench and its position on a detail of the geophysical survey image (by ArchaeoJedi & László Kolonits)



Fig. 15. Drone photo of the 2020 excavation trench (photo by Dávid Iszak)

UPCOMING TASKS

Continuing the site's geophysical surveying in the southern and south-eastern parts is essential. Geological coring would also contribute significantly to the existing body of knowledge, especially sample sets crossing the ditches of the enclosure system. Finally, the key to clarifying the relative and absolute chronological positions of the circular ditches is a new excavation trench cutting through the lines of all four ditches and the accompanying palisade walls, preferably at places where these are as little disturbed as possible by phenomena of later historical periods.

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