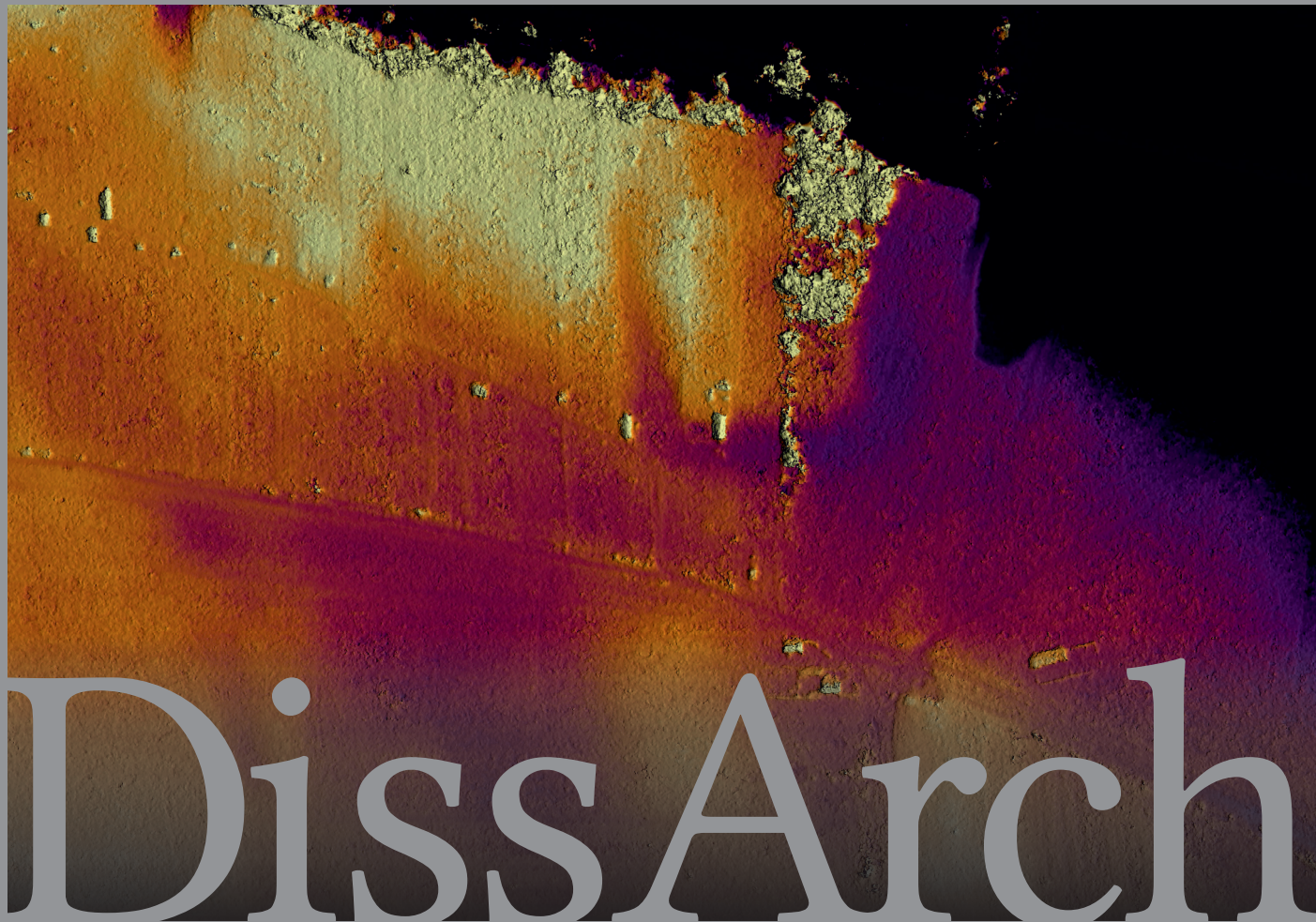


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ex Instituto Archaeologico

Universitatis de Rolando Eötvös nominatae



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# Excavation of a Roman settlement in the north-western hinterland of Aquincum (Óbuda, Hungary) at Pilisszentiván

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**Abstract:** As part of a new research project and a local history research project, a team of the Institute of Archaeological Sciences of the Eötvös Loránd University and the Archeovortex Ltd. excavated a Roman rural settlement in the territory of Pilisszentiván. The settlement is located in the northwestern hinterland of the Roman town of Aquincum (today: Óbuda, Hungary) in a scarcely investigated area. We documented the previously uncovered but unpublished remains of three buildings and made new observations on the chronology and function of the excavated settlement part.

**Keywords:** Early Imperial Roman Period, rural settlement, hinterland of Aquincum, pottery stamp, woodland archaeology

## Location and research history of the site

The Pilisszentiván-Hárserdő archaeological site<sup>1</sup> is located on a natural, low mountain terrace of the Buda Mountains near Hársas Spring, the source of the Aranyhegyi Stream that discharges into the Danube at Aquincum (today: Óbuda, Hungary). The site is situated on the northeastern side of Hárs Hill above a modern water pump station and a dirt road connecting Pilisszentiván and Piliscsaba in the northwest. This area, most parts of which have always been ideal for cultivation,

1 Site ID in the National Register of Archaeological Sites of Hungary: 82127.



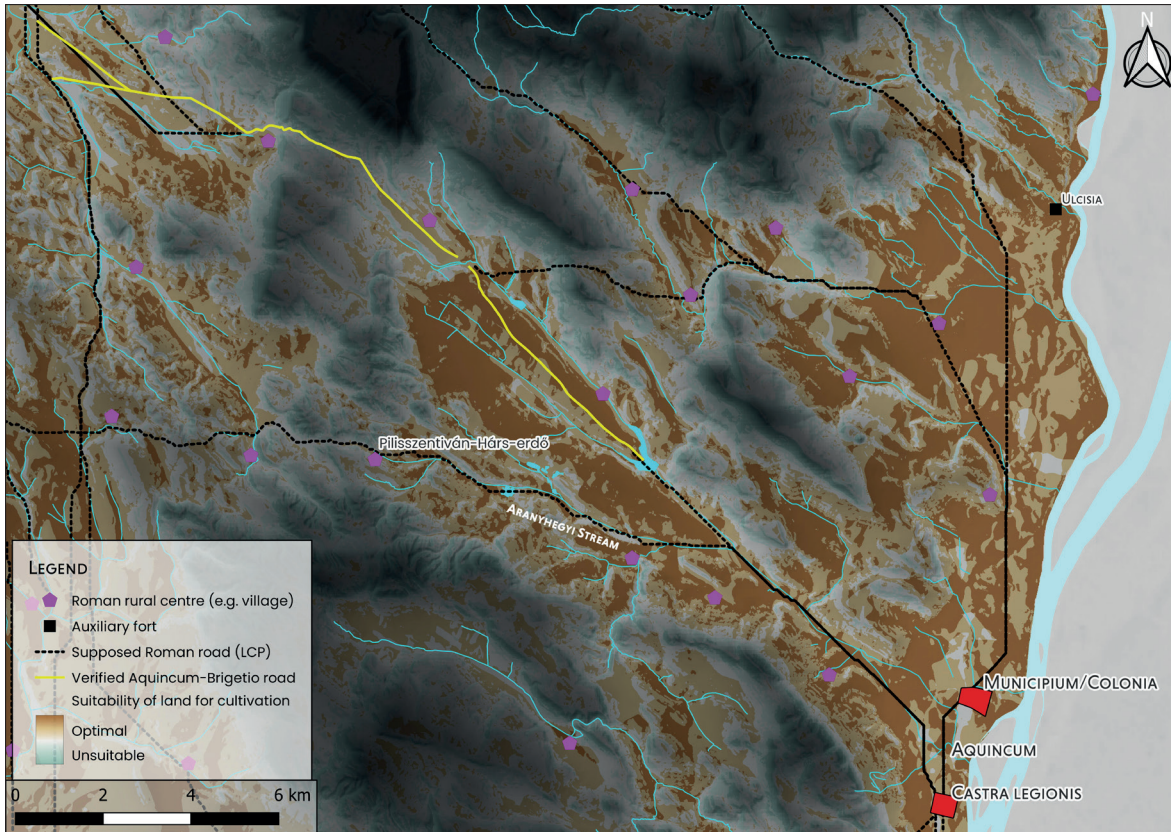


Fig. 1. Topographical position of the excavation in the hinterland of Aquincum (map by B. Simon)

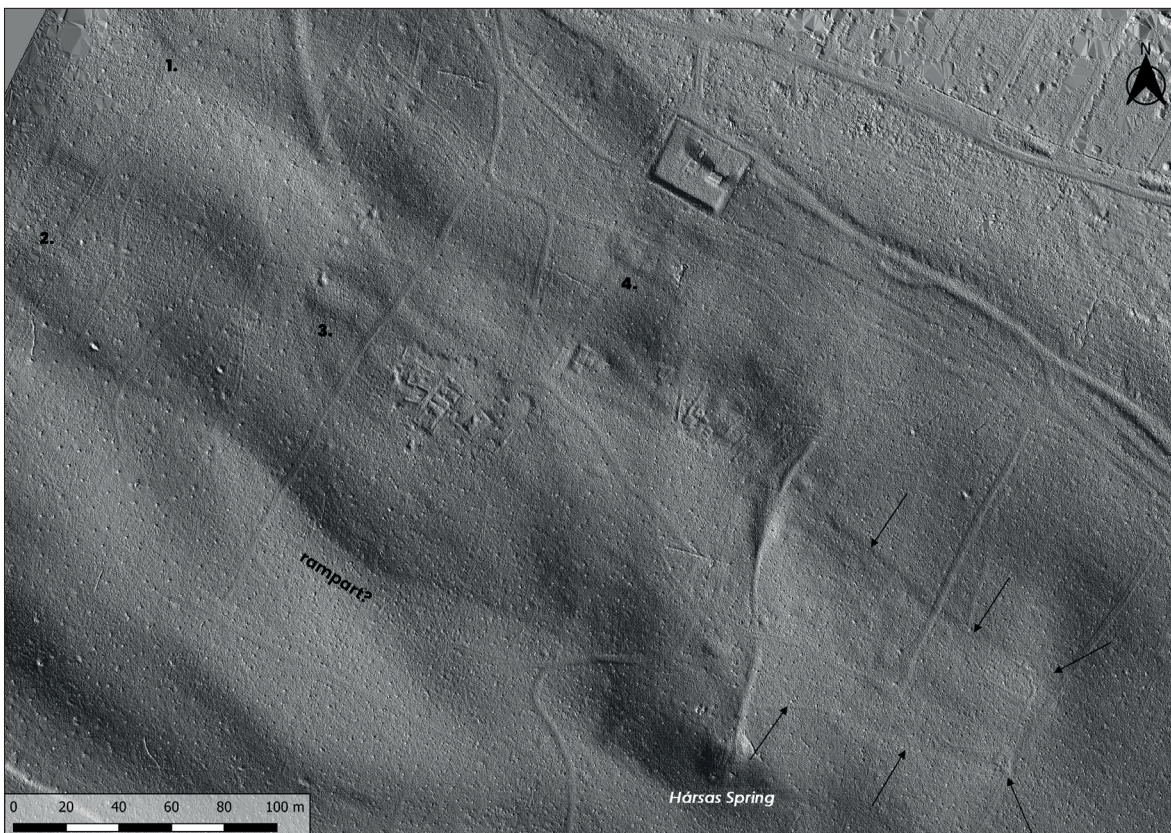


Fig. 2. The area of the settlement on an ALS survey image in Spring 2023. 1–4, traces of surface disturbances (buildings?). Arrows mark the stone enclosure (illustration by B. Simon)



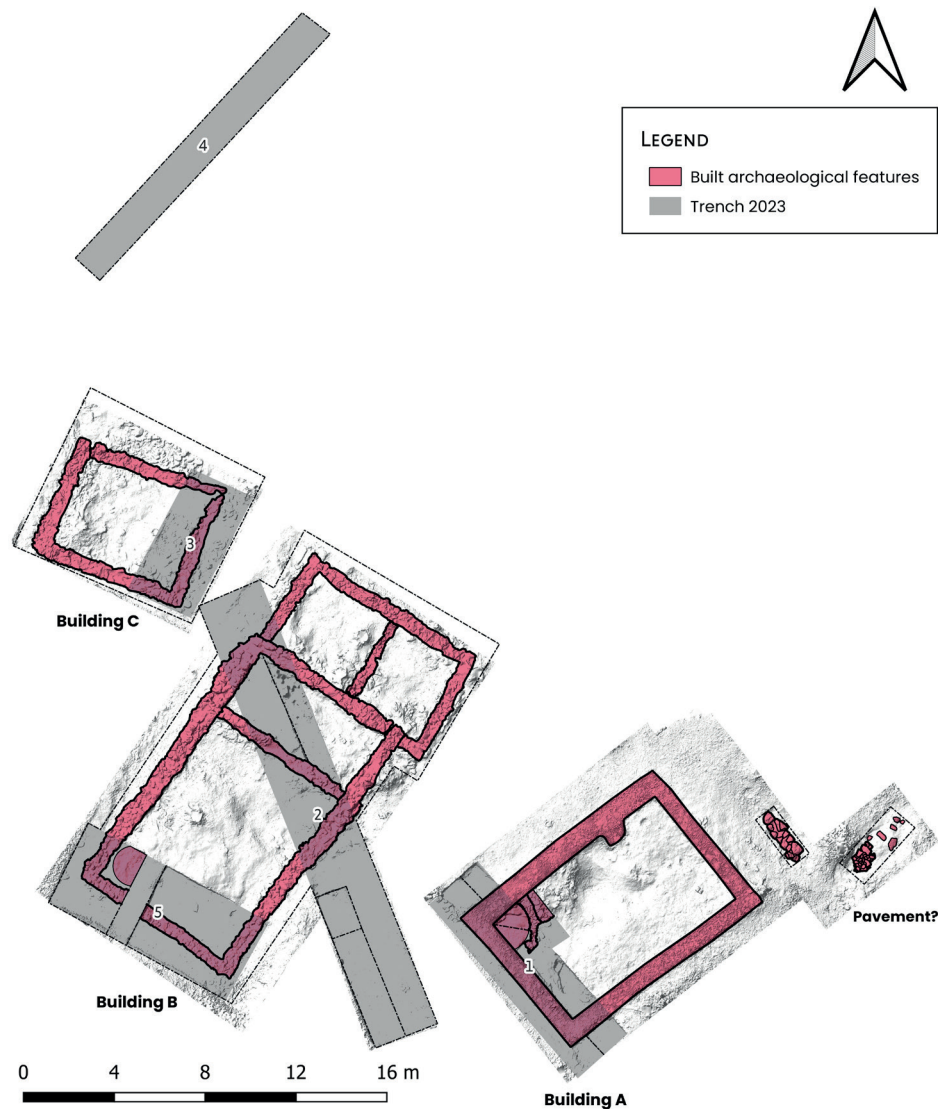


Fig. 3. Survey map of the excavation (by B. Simon)

is part of the northwestern hinterland of Aquincum<sup>2</sup> where the minor road mentioned above crosses the valley between the blocks of the Pilis and the Buda Mountains (Fig. 1).<sup>3</sup>

The site was identified by Tamás Marlok in 2009 and entered into the National Register of Archaeological Sites of Hungary in 2012; three Roman buildings were excavated there by Tamás Repiszky in 2014–2017. Repiszky did not publish the excavation results, and the finds have not yet been processed either; however, some are on display in the exhibition entitled *The History of Pilisszentiván in the Roman Age* under 9 József Attila Street, while the rest are stored by the Ferenczy Museum Centre.

In 2023, a team of the Institute of Archaeological Sciences of the Pázmány Péter Catholic University carried out a ground-penetrating radar (GPS) survey of the central zone of the settlement, and in March 2023, Bence Simon, in cooperation with Lumen Drone Services, carried out an airborne laser scanning (ALS) of the area. The former survey, funded by the Municipality of Pilisszentiván,

2 For further research on the northwestern hinterland of Aquincum, see SIMON 2019a; SIMON 2019b; SIMON 2022. For the details of the related land suitability evaluation, see SIMON 2022, 229–231.

3 This road is not the imperial high road connecting Aquincum and Brigetio (Komárom-Szőny, Hungary) through the Pilis Mountains (SIMON 2023, 56–60), but only a presumed one outlined by least cost path (LCP) analysis (SIMON 2015).

identified stone buildings. The latter, in addition to older excavation trenches and the three partially unearthed Roman buildings, identified the line of a sunken road leading up to the terrace, a stone enclosure surrounding the settlement from the east, traces of further landscaping activities (e.g., levelling of the surface), and a possible rampart (Fig. 2). The extent of the settlement and their relative positions with Aquincum suggest that it could have been a village that probably maintained good economic and social connections with the town.

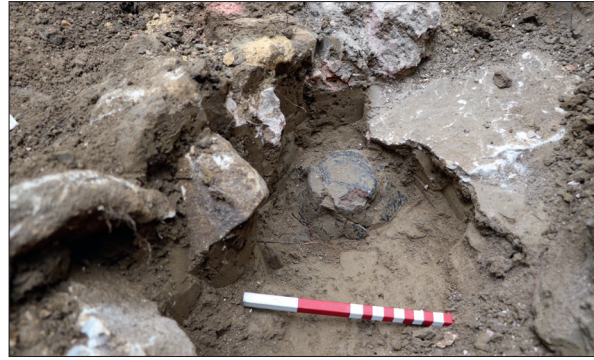


Fig. 4. Hand-made indigenous-style pottery from the area of Building B (photo by B. Simon)

### The circumstances of the 2023 excavation and the layout of the trenches

The excavation led by Bence Simon in 2023 was financed by the Municipality of Pilisszentiván and carried out by a team of the Institute of Archaeological Sciences of the Eötvös Loránd University. The project was realised in cooperation with the Ferenczy Museum Centre, the Archeovortex Ltd., and the Community Archaeology Association between 16 and 30 October. The investigation aimed to clarify and document the layout and function of the buildings uncovered by previous excavations, determine the chronological position of the site, and examine the road leading up to the settlement.

Three buildings were discovered during the 2014–2017 excavation seasons; in this paper, these are marked A to C, starting with the easternmost building. In 2018–2019, the walls of Building A had been covered with a welded wire mesh, technically a gabion, which were not removed during the current excavation. The other remaining wall foundations were found by removing only a few centimetres of the topsoil. Then, the internal and external wall faces were cleaned to clarify the layouts of Buildings B and C. As a result, the area to be excavated increased from the originally planned 150 m<sup>2</sup> to 343 m<sup>2</sup>. As the ten working days allocated to the excavation would not have been enough to entirely unearth all the disturbed parts, trial trenches were laid out to survey the road and the exterior and interior of the buildings, partly before and partly during the excavation. Thus, a total of 168.5 m<sup>2</sup> surface was investigated at greater depth to reveal the layers of the settlement site (Fig. 3).



Fig. 5. Round oven and stone construction under the level of Building A (photo by L. Rupnik)



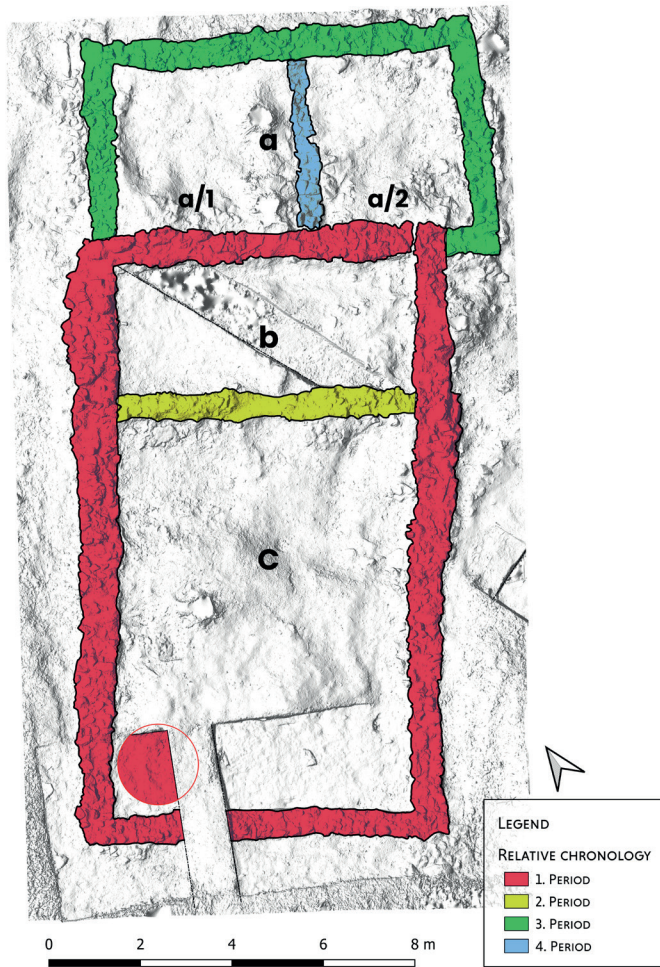


Fig. 6. Relative chronology and ground plan of Building B (map by B. Simon)



Fig. 7. The wall junction of Rooms a and b at the northwestern side of Building B (photo by B. Simon)

The trenches were numbered from east to west (Fig. 4). Trench 1 (3 × 10 m) was laid out parallel to the southwestern wall foundation of Building A. Trench 2 (3 × 21 m) was opened partially in the area of the middle room of Building B, also covering the northern and southern walls of the neighbouring rooms. Besides, this trench had an 8 m long extension opened to identify other archaeological features outside Buildings A and B. The northeast-southwest oriented Trench 3 (3 × 6 m) was opened parallel to the eastern wall foundation of Building C during the second week of the excavation. Trench 4 (1.5 × 15 m) was laid out perpendicular to the sunken road, allowing its profile and structure to be studied. Finally, Trench 5 (4 × 9 m) was opened parallel to the southern wall foundation of Building B, where we hoped to investigate a part of the southern room where previous excavations did not disturb the original archaeological layers.

Except for the conservation of the exposed monuments (i.e., the refilling of the trenches), all earthworks were done manually. The first stray finds, mostly pottery, appeared after removing the dead leaves and a few centimetres of topsoil. However, this is not the original condition of the area; locals reported that the topsoil had already been removed with a small excavator during the 2014–2017 excavations when some trenches had also been dug along the outer side of the wall foundations. A clearly intact layer sequence was only found in the area of Building C; elsewhere fragments of thick, black plastic film indicated the level previous excavations had reached.

The original stratigraphy of the site was not easily clarified, as the differences between the layers were not significant. A similar, uniform, hard, brown-red-dish clay fill was observed in- and out-





Fig. 8. The stone foundation of the oven in Building B (photo by B. Simon)



Fig. 9. Orthomosaic of Building C after the removal of the topsoil (by B. Simon)



side the buildings. Lower down, only the lack of archaeological artefacts showed we passed through the last cultural layers. The lowermost cultural layer was found at about 80–100 cm from the top of the wall foundations, while a homogeneous yellow gravel layer was found under the hard reddish clay at the same depth in the area of Building A in Trench 1. A small, 30 cm deep test trench was dug into the gravel layer in the southwestern corner of the building, but it did not cut through it; whether this layer is of archaeological origin has remained uncertain.

### Results of the 2023 excavation

During the excavation, 102 stratigraphic units were recorded, 70 of which were excavated. The vast majority of the features could be dated to the Roman Period, but several perhaps prehistoric pottery fragments were also found. Once cleaned, it will be possible to date them unambiguously; indigenous Roman Period hand-formed pottery, which can easily be mistaken for prehistoric, was also found in quantities at the site.

Stray prehistoric-looking pottery fragments were found in the eastern zone of Trench 2 outside Building B. After a while, the work in this part of Trench 2 was abandoned because no traces of archaeological features were detected there despite digging deep at points. Moreover, this area seemed disturbed, as the soil contained some modern, painted wooden fragments. Only a pit with an uncertain outline was discovered in one of the deeper areas.

The oldest artefacts were found in Trenches 2 and 5 in the interior of Building B and in Trench 1 in Building A, below the bottom of the wall foundations. Early hand-formed pots of indigenous character, dating to the 1st and 2nd centuries AD, have been recovered from Trenches 2 and 5 (Fig. 5). The soil of Trench 1 contained fragments of a grey Pannonian Drag. 37 imitation stamped bowl, dated to a slightly later period. Unfortunately, the fragment was unearthed near the refill of earlier excavations.

The plastered floor of an earlier, round oven, the stumps of its dome, and a dry-stone wall structure connected to it in the east were uncovered in the southwestern corner of Building A, 80–90 cm below the top of the wall foundations (Fig. 6). The stone foundation of the plastered oven floor yielded several fine grey Roman potsherds which, after cleaning, may provide an approximate *terminus post quem* for the construction of Building A.

The excavation did not reveal any new information about the inner structure of Building A (with an outer dimension of 10.5 × 7.5 m). A parallel, 2.4 m long wall foundation and possibly a pavement a bit farther were discovered north of the building; all these features had already been unearthed once in 2014–2017.



Fig. 10. Intact clay and stone floor in the southeastern corner of Building C (photo by B. Simon)





Fig. 11. The displaced southern wall foundation of Building B (photo by B. Simon)



Fig. 12. Profile of a possible rampart above the road leading up the settlement (photo by E. Süvegh)





Fig. 13. Pottery stamp from the area of Building B (photo by Á. Müller)



Fig. 14. Impression of the pottery stamp in modeling clay (photo by B. Simon)

Based on its layout, Building B was originally rectangular, and its inner space was divided into a smaller and a bigger room at the third on its upper end (slopeside), a common design in rural settlements in Pannonia (Fig. 7).<sup>4</sup> The different size stones in the wall foundations suggest that a new rectangular room was added to this building in the north at an uncertain date (Fig. 8). We named the rooms from north to south: *a*, *b*, and *c*. A dividing wall, the novelty of this excavation season, was found in the northern Room *a*. The outer dimensions of Room *a* are 8.7 × 5 m, the two smaller rooms are 4.7 × 5 m and 4 × 5 m; Room *b* covers 8.3 × 4 m, and Room *c* 8.3 × 9.7 m. The wall foundations were built without any mortar and were no thicker than 40–60 cm; they remained intact at a height roughly equivalent to two courses of stones.

According to the preliminary geological report, the southern part of Room *c* was uniform, built of a single type of stone, while the foundations of the northern part of Room *c* and those of Room *b* were made from stones from different deposits. The analysis also pointed out that volcanic rocks only occur in the wall foundations of Room *a* and in the area of Building C, indicating their simultaneous use or construction.

The plastered floor of a circular heating or baking oven was discovered in the southwestern corner of Room *c*. The oven floor was laid out on a thin layer of broken pottery and medium-sized limestone rocks (Fig. 9). It is probably contemporary with Building B as it aligns with its foundations and is at the same level as its bottom. The hand-

made, indigenous-style pottery uncovered in the lower fill layers of Rooms *b* and *c* suggest that the first version of Building B was constructed most probably after the turn of the 1st and 2nd centuries AD but not later than the mid-2nd century AD.

It was relatively difficult to determine the outline of Building C (Fig. 10), as the stones of the collapsed walls covered the whole area. The only intact floor, made of clay and embedded stones, of the excavated settlement was discovered in the southeastern corner of the building in Trench 3 (Fig. 11). We cut through it, but unfortunately, its body contained no archaeological finds of dating value.

Only a few roof tiles and the floor described above were found inside the excavated buildings, indicating an economic function for all of them. It is unclear what material the walls were made from, but a timber-framed construction can be presumed as no traces of adobe walls were found. It has also remained a question of how the builders overcame the challenges represented by the signifi-

cant height difference and having to build on a slope as no levelling courses of stone were observed and the foundations were adapted to the current slope of the terrain. The engineering challenge becomes even more obvious by taking a glimpse at Building B, where the height difference between the southern wall of Room *c* and the northern wall of Room *a* is more than 2 metres. Because of the moderate slope, erosion may have played a major role in the collapse of the buildings, as evident in the case of the southern wall foundation of Building B (Fig. 12) and the area of Building C.

No traces of a road foundation or a road surface were discovered in Trench 4, but only some scattered Roman potsherds and maybe a heavily eroded rampart—a mixture of clay, stone, and daub—were found along the southern side of the road (Fig. 13).

Although metal detectorists of the Community Archaeology Association worked with us almost all along, only a few metal objects were recovered, including a Roman onion button brooch (a kind of crossbow brooch) fragment from Trench 5. In addition to relatively early Roman pottery, a pottery stamp (Fig. 14), probably depicting three pine cones, was also found in Trench 5, below the foundation level of Room *c* of Building B. Along the western wall foundation of Building B, the rim and band handle of a square glass bottle were also uncovered. Overall, the find material of the site was relatively modest, consisting mainly of general Roman domestic pottery and remarkably few animal bones.

## Summary

The three excavated buildings probably belong to an economic quarter located at the fringes of a Roman settlement, the early phase of which presumably included a pottery workshop and an open-air oven. The area was likely most suitable for logistical and other economic activities because the road reached the natural terrace there. The current results suggest that this part of the settlement may have been in use between the end of the 1st and the 3rd century AD.

As a closing act of the excavation, the wall foundations and the remains of the oven were covered with geotextile and the trenches were refilled with the excavated soil on 2 November.

The excavation team included archaeologists Bence Simon, Szilvia Johácz, Dániel Hümpfner, Rita Olasz, László Rupnik, Eszter Süveg, Márton Szabó, Melinda Szabó, archaeological technician Ákos Müller, archaeology student László Beszédes, eight members of the Community Archaeology Association, twenty-seven, mainly local volunteers from Pilisszentiván, and fourteen volunteers from the Duna–Ipoly National Park.

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