

## ECONOMY, SOCIETY, AND RURAL LIFE

### The north-western hinterland of Aquincum

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*The amazing variety characterising the Roman Empire was the result of the diversity of its components, communities with unique economic, social, and cultural traits. These units formed systems mainly consisting of cities or towns and their rural “hinterland”. Currently, little is known about the characteristics and modus operandi of these systems in Pannonia province; therefore, the current research programme is aimed at getting an overall picture of these aspects of life in the north-western catchment area of Aquincum (today, Óbuda [Old Buda] in a north-western district of the Hungarian capital), a town rich in finds with inscriptions but understudied compared to the well-researched south-western supply zone. The planned project, utilising non-destructive methods in the first place, focused on a detailed investigation of the rural landscape beside the road connecting Aquincum with Brigetio (Komárom–Szőny) and aiming at reconstructing the interplay of environment, society, and economy on a historical scale.*

**Keywords:** diagonal road, hinterland of Aquincum, intensive agriculture, landscape archaeology, archaeological settlement topography, GIS modelling

## INTRODUCTION

In Roman provinces, the framework of economy and administration was determined by the *civitas*, the urban community, which used its political and economic connections to establish and cement its political authority in newly occupied areas and exploited the available resources to secure a continuous supply of goods for itself. Therefore, the urban population and the soldiers were supplied with agricultural products by the way more populous rural areas, while they themselves barely produced food. It would be misleading, however, to simplify the relation between the urban settlements and the rural areas to that, as it was rather a tangle of intertwined and interdependent systems than one with superior and subordinate elements (ERDKAMP 2001).

My previous research focused on the investigation of this complex system of relations in the economic and social setting and settlement network of the hinterland of Aquincum (Óbuda) and Brigetio (Komárom–Szőny) in Pannonia (SIMON 2019a). Field collection and excavation data outlined a regular network of rural settlements about 3–4 km away from each other, the formation of which, based on economic geographic analogies, may be linked with intensive agriculture and a particular social composition of the related rural communities (SIMON 2017; 2022, 225–228). This pattern was similar to the late medieval system of villages, the GIS analysis of which has revealed that that division *en large* matches the recent settlement borders and that their positions were fundamentally determined by the terrain and travel-related energy investment (SIMON 2019b). The current project investigates a smaller area in more detail to complement, control, and specify previous results and reveal new connections.

## AIMS OF RESEARCH

The cultural traits of the indigenous Celtic *Eravisci* had a significant influence on settlement patterns, economy, and system of beliefs in the administrative area of Aquincum up to the 3rd century AD. In the past decades, several extensive villages were unearthed and published from the Budaörs and Zsámbék Basins south-west of the town, the record of which includes Roman-style imports and local products together with

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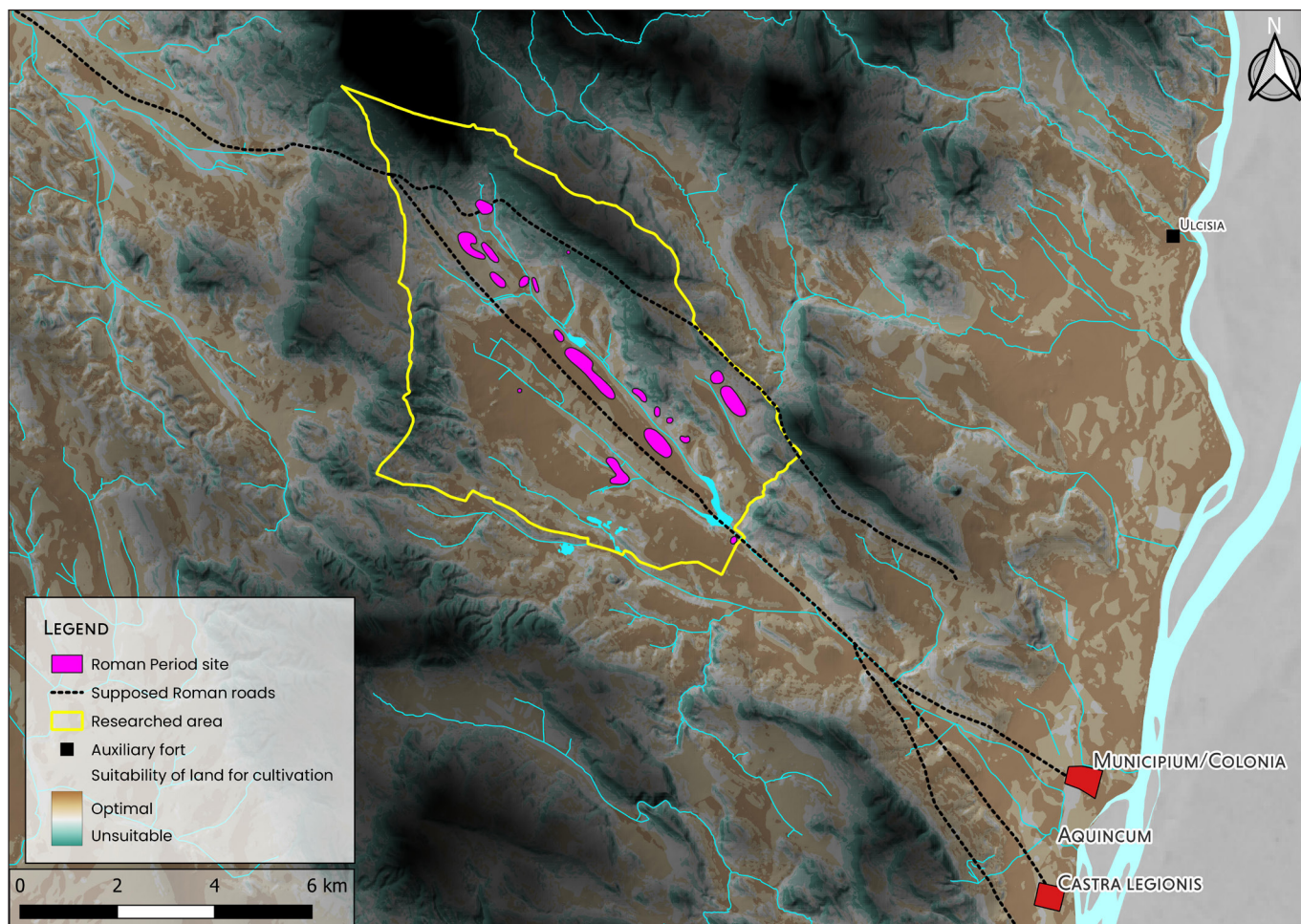


Fig. 1. The focus area north-west of Aquincum (map by Bence Simon)

traits of coexisting Roman and indigenous architectural traditions and mortuary customs (OTTOMÁNYI 2007; 2012; 2014; 2016a; 2019). While large areas have been excavated of the Roman settlements at Budaörs and Páty, representing the south-western hinterland of Aquincum, thus making them extremely important for the research on rural settlements in Pannonia, little is known about the lands neighbouring the town from the north-west. Considering this disproportion of research, the focus area of the project was designated in the basin between the Pilis and Buda mountain ranges. This valley provided a probably optimal setting for agriculture, and we know (from historical maps) of a road that crossed it in the Roman Period (Fig. 1).

This area is particularly worth investigating as it lies next to Aquincum, which means it is in a comfortable distance for a one-day back-and-forth trip as the lands can be reached on foot in 3.5–3 hours or less. Therefore, this area was probably engaged in intensive and active communication with the town, unlike the lands farther away, where it could only exercise financial and political supervision (BINTLIFF 2002, 239–240).

Based on the results of the topographic and GIS-based analyses in my PhD research, the economy and settlement pattern of the focus area in the Roman Period did not differ from other parts of the hinterland of Aquincum, i.e., it was characterised probably by village-like intensive agricultural settlements with small-holder residents (SIMON 2019a, 125–206). Only the persons who had diverse inscribed monuments erected differ from the “usual” inhabitants of the south-western hinterland of the town: the monuments discovered near the diagonal road belong to the officials of the governor and higher-ranking soldiers of the *legio II Adiutrix* garrisoned in Aquincum (SIMON 2022, 223–225).

With an eye to the above, the research project realised through a current grant was designed to focus on the sites along the diagonal road and their setting in the north-western part of the town’s hinterland because it



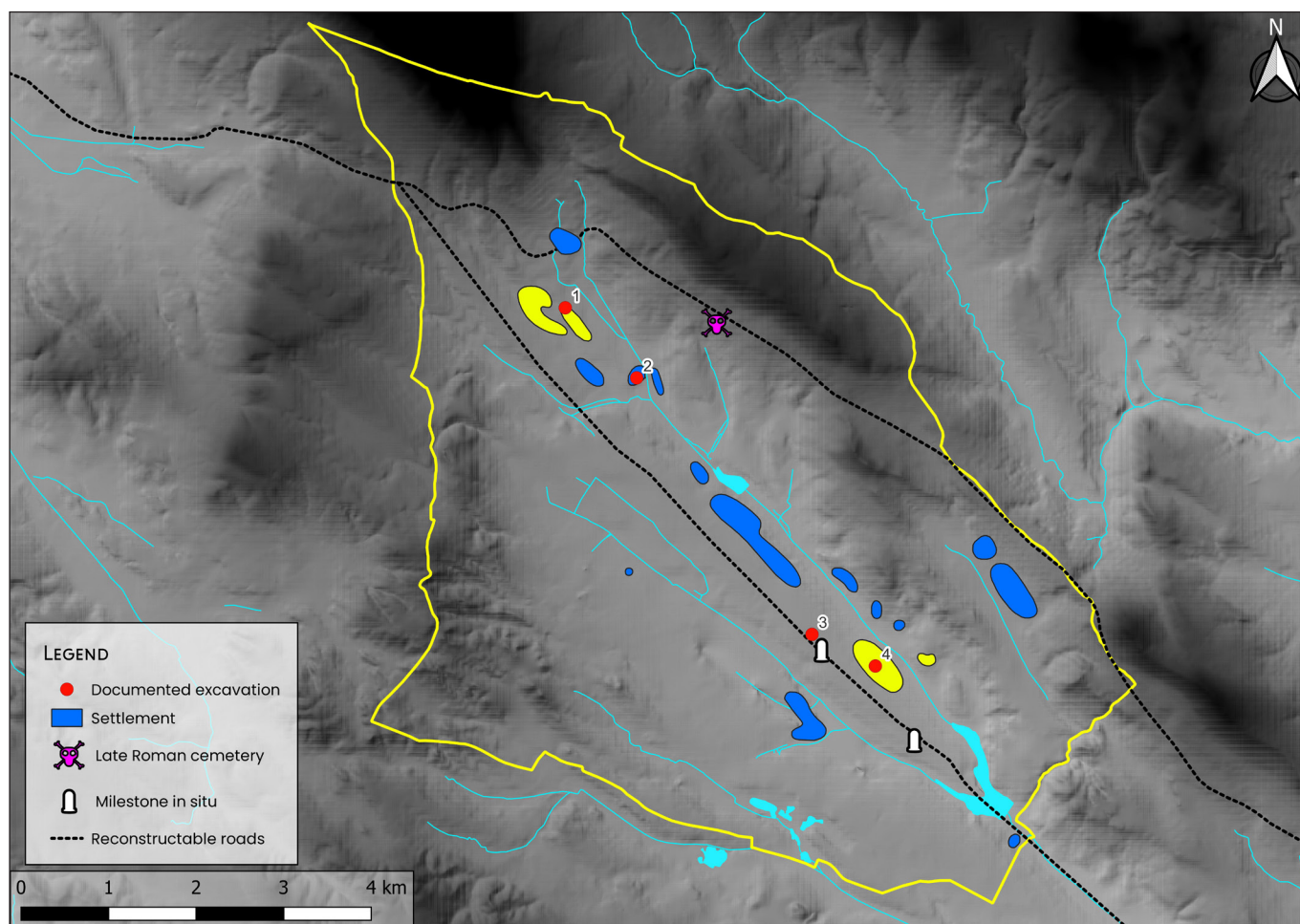


Fig. 2. Roman sites, milestones, site clusters used for a long time (yellow), and excavations in the focus area (map by Bence Simon)

has yet to be clarified what kind of settlements had been established in that area in the period in question, how they are positioned within the landscape, what is their internal structure like, and what changes they have undergone over time. Were they *villas*, farm-like complexes consisting of the home of the landowner and his family and auxiliary buildings? Or small, distinct villages comprising a couple of households? Or distinct administrative units, including both? In some cases, the picture outlined by excavations and data obtained via large-scale non-destructive surveys is unclear. The interpretation of the Roman villages at Budaörs, Páty, and Ménfőcsanak is not clouded by uncertainty: all three settlements evolved undisrupted in place for a long time, equally comprising Roman-style and indigenous-type buildings but with no separate building complexes or *villas* in their territory or nearby (BÍRÓ 2017, Cat. 14, 38 and 72). The changes in the area of Csúcshegy are similarly apparent: the transformation of the Roman settlement network in the Severan era resulted in the cease of the indigenous settlement core, which has become replaced by a stone *villa*; that complex and similar others built at the same time in the vicinity took over the economic role of the former village (BÍRÓ 2017, 290–291). In contrast, interpreting the remains of those settlements where the construction of the stone buildings included a partial levelling of the previous semi-sunken ones and where the *villa*-like building complexes have been erected in a part of the former village or next to it, separated from the rest of the settlement by a stone fence (Törökbálint, Kukorica-dűlő: OTTOMÁNYI 2014, 111–112; Érd-Simon-dűlő: OTTOMÁNYI 2016b, 16, 5. kép, 29; Halbtun: DONEUS *et al.* 2018), is much more challenging.

The research of this complex topic may be started by breaking it down into five questions which can be tackled using archaeological methods: 1, the topographic setting and extension of all identified sites, 2, their find material and chronological position, 3, the internal structure and evolution of the settlements, 4, the relation of the settlements and the economic areas they represent to the diagonal road, and 5, the char-

acteristics of land use in the Roman Period, focusing especially on the borders between settlements and the identification of cultivated lands.

Almost all available data from the focus area was gleaned within the frame of the Archaeological Topography of Hungary project. The Roman settlements at Pilisvörösvár and Pilisszántó stand out from the record; they were probably inhabited for a long time (SIMON 2019b, RCat. 1, 4; *Fig. 2*). The surface finds not giving a clue about the links between these sites, it has remained to be clarified whether they are households of a village or a cluster of minor *villas*, as well as their relative chronological positions and the trajectory of their evolution. László Kocsis and Marianne Prohászka have unearthed a Late Roman stone building with multiple rooms and floor heating on the outskirts of Pilisszántó; the presence of such a construction hints at the settlement structure of the Late Roman Imperial Period (MNM Rég. Ad. LIX/431/2001., Ltsz. 19045; XXXI/430/2001., Ltsz. 18532; *Fig. 2.2*). Another informative find is a tombstone dated to the 1st–2nd centuries AD, built into the wall of the Valentinian era (4th-century AD) watchtower next to the sites at Pilisszántó; the stone was probably brought there from the cemetery of a nearby settlement (SOPRONI 1985, 289; *Fig. 2.1*). The goals of the project also include the identification of these cemeteries, of the existence of which we only have indirect evidence, in order to build a comprehensive reconstruction of the Roman Period landscape.

One delving into this topic must consider the distortion effect of the local topographic setting and the diagonal road (the high road avoiding the Danube Bend by cutting through some valleys far from the river), as well as the occasional arrangements of the economic space. How did people get to the settlements from the main road, and where were the cemeteries established in relation to the settlements and the roads? Currently, we have data on the latter only in the case of the site cluster at Pilisvörösvár, where Katalin Ottományi reported to have discovered the Late Roman Period cemetery between the high road and the settlement.

Another question of landscape use is related to the outskirts of settlements: what were these zones used for, and what kind of archaeological traits could those activities leave behind? Features indicating the active use of an area in Roman times may include ditches and minor roads (BÖDÖCS, KOVÁCS & ANDERKÓ 2014), while in lucky cases, like those of Gallia and Hispania (POIRIER 2016; GRAU MIRA & SARABIA-BAUTISTA 2022), the distribution of surface finds provides evidence. Intensive agricultural activity in an area involved human presence for prolonged periods, which resulted in the internment of household waste in the cultivated soil (besides the “regular” objects which had simply been lost). The accumulation of such “off-site” find material may indicate the former presence of a temporary dwelling or a pen or manuring, a characteristic of intensive agriculture. The research carried out within the frames of this project aims to reconstruct the Roman Period land use of the area between the two villages based on off-site find material.

## APPLIED METHODS

Spatial data will be collected using non-destructive methods; the GIS-based evaluation of these, completed by extensive field walking between and intensive surface collecting within the sites, will be compared with the results of the magnetometric, georadar, and metal detector surveys. Instrument surveys are helpful in specifying the structure of the settlements and the outer zones, as well as their chronological positions, while field walking provides data on the scatter of surface finds. The body of data gleaned this way will be completed by traditional and low-altitude aerial photography (the latter enabling a micro-scale analysis of the terrain).

## RESULTS FROM THE FIRST SIX MONTHS OF RESEARCH ON THE DIAGONAL ROAD

In the first few months, I succeeded in specifying – based on new and archive data – the path of the high road connecting Aquincum and Brigetio, a structure in the landscape that fundamentally determined the topographical setting and settlement history of the focus area. The high road has been well-researched (SIMONYI 1936; LÁNG 2005; PETŐ 2014; SIMON 2015); not only numerous milestones mark its path (KISS 2007, 124–125)



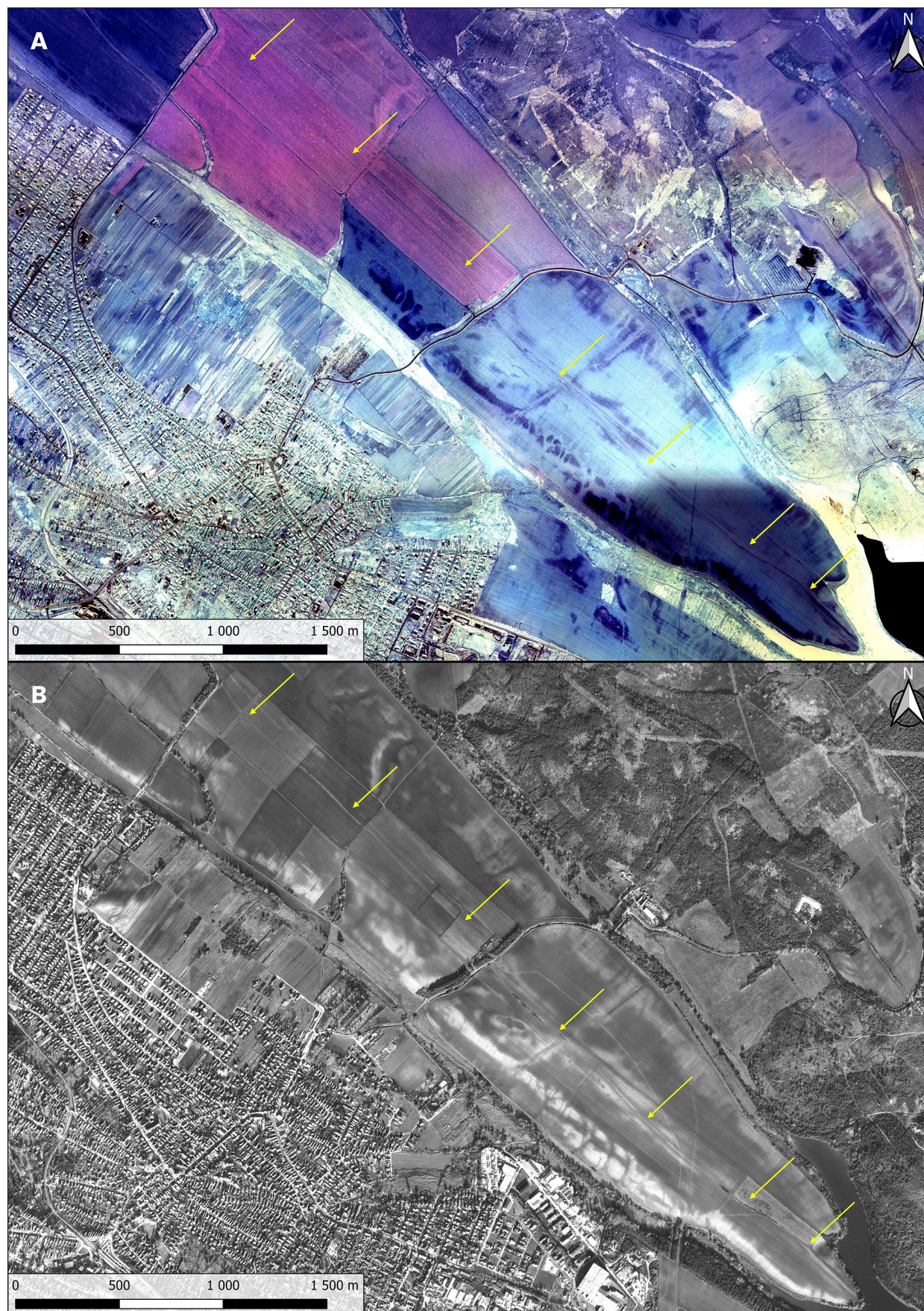


Fig. 3. A, the path of the diagonal road on a series of aerial images taken on 18 March 1988 (source: fentrol.hu, Lechner Non-profit Ltd, 1988-0010; <https://www.fentrol.hu/hu/kereses/tag/1988-0010>, accessed on 15. 08. 2023); B, the path of the road on a satellite image taken in January 2022 (Google Earth, Image © 2023 Maxar Technologies) (by Bence Simon)



but also Máté Stibrányi explored a minor section in a rescue excavation in 2008 (KÖH 600/4540/2009, 2009-0205/1). In October and November 2022, i.e., preceding the start of this project, the Community Archaeology Association launched its own project with volunteers to identify sections of this road on the field and collect related metal finds. Upon the request of the local government of Pilisvörösvár, they surveyed the archaeological sites in the administrative area of the town and shared their data and finds with me in December of the same year when we started collaborating. In February and March of the following year, I led a team of volunteers with whom we surveyed some northern road sections.

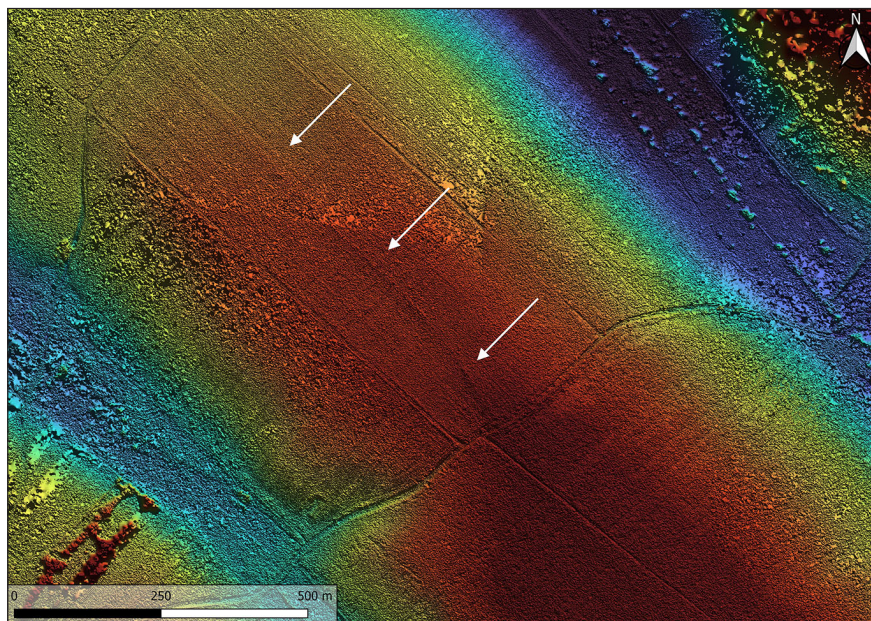


Fig. 4. The embankment of the diagonal road on a terrain model created from a series of aerial images taken on 13 August 1970 (source: fentrol.hu, Lechner Non-profit Ltd, 1970-0170; <https://www.fentrol.hu/hu/kereses/tag/1988-0010>, accessed on 15. 08. 2023) (by Bence Simon)

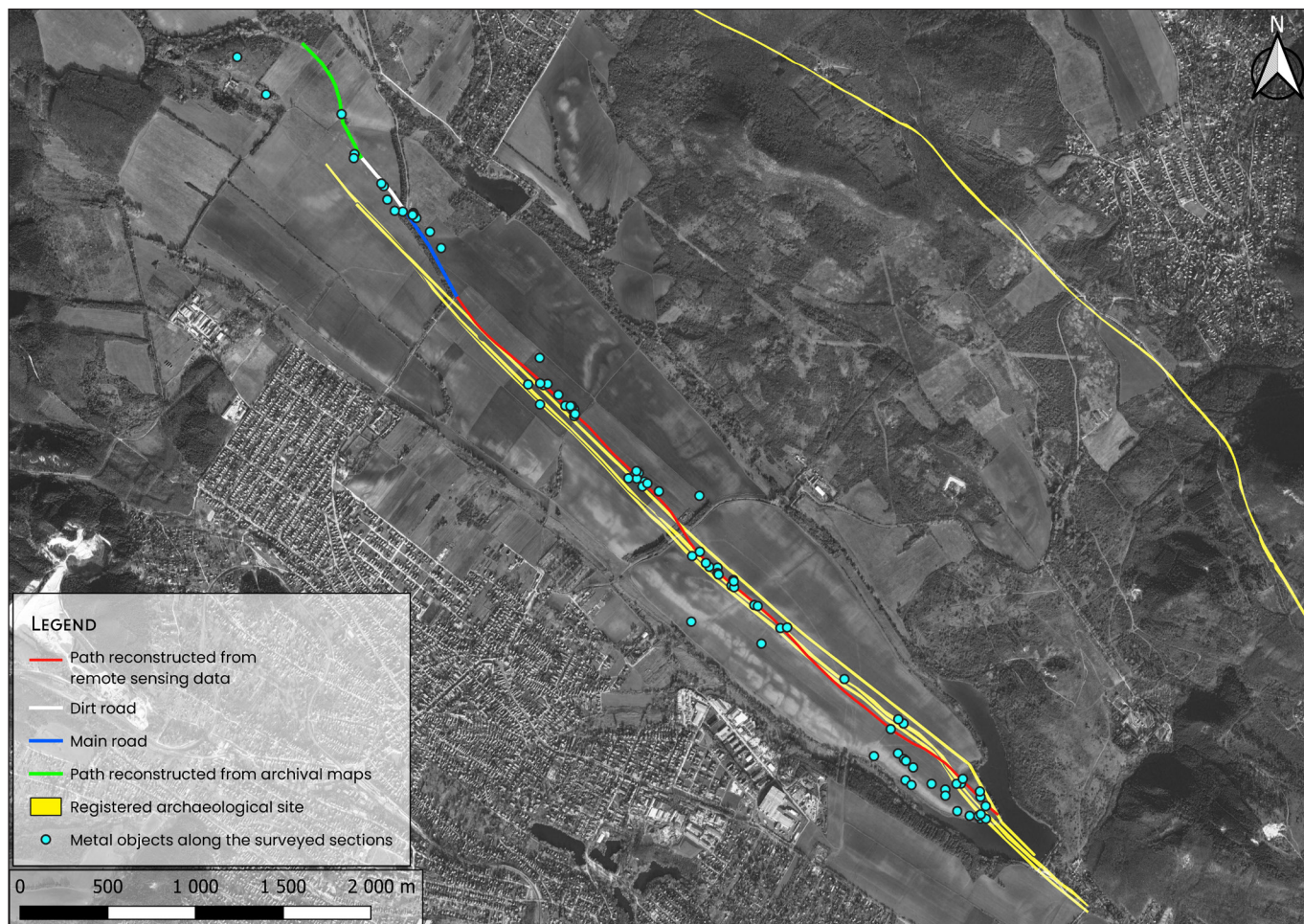


Fig. 5. The identified path of the diagonal road, the scatter of metal finds, and the site's extent in the national register (map by Bence Simon)





Fig. 6. Cart rut in the surface of the dirt road of Roman origin, leading to Bende-tanya (photo by Bence Simon)

In several cases, the road sections were found destroyed by ploughing; therefore, I also relied on archive photos from [fentrol.hu](http://fentrol.hu), the aerial photo archive of Lechner Non-profit Ltd, and satellite images by Google Earth (Fig. 3). The archive photos were suitable for creating a digital terrain model with data about the path and, most importantly, the structure (build-up) of the one-time high road (Fig. 4). Preliminary results suggests that the path of the high road derives from the registered one, especially in the northern zone, where sections are still used as a main road or dirt road, respectively (Fig. 5). Even some cart ruts could be identified in the eroded white stones of a dirt road section (Fig. 6). In the northernmost zone the path of the Roman Period high road leaves the modern road again and runs probably on

the border of Pilisszántó and Pilisvörösvár. This path appears on a map from 1767 (Fig. 7; MNL OL, S11 No. 830:84), while the light surface of the sections destroyed by ploughing could clearly be seen both on the field and from the air (Fig. 8).

Metal detector surveys have revealed that objects are scattered in abundance in a ca. 40 m-wide zone along the road, thus outlining its path. The recovered finds came from every historical period between the

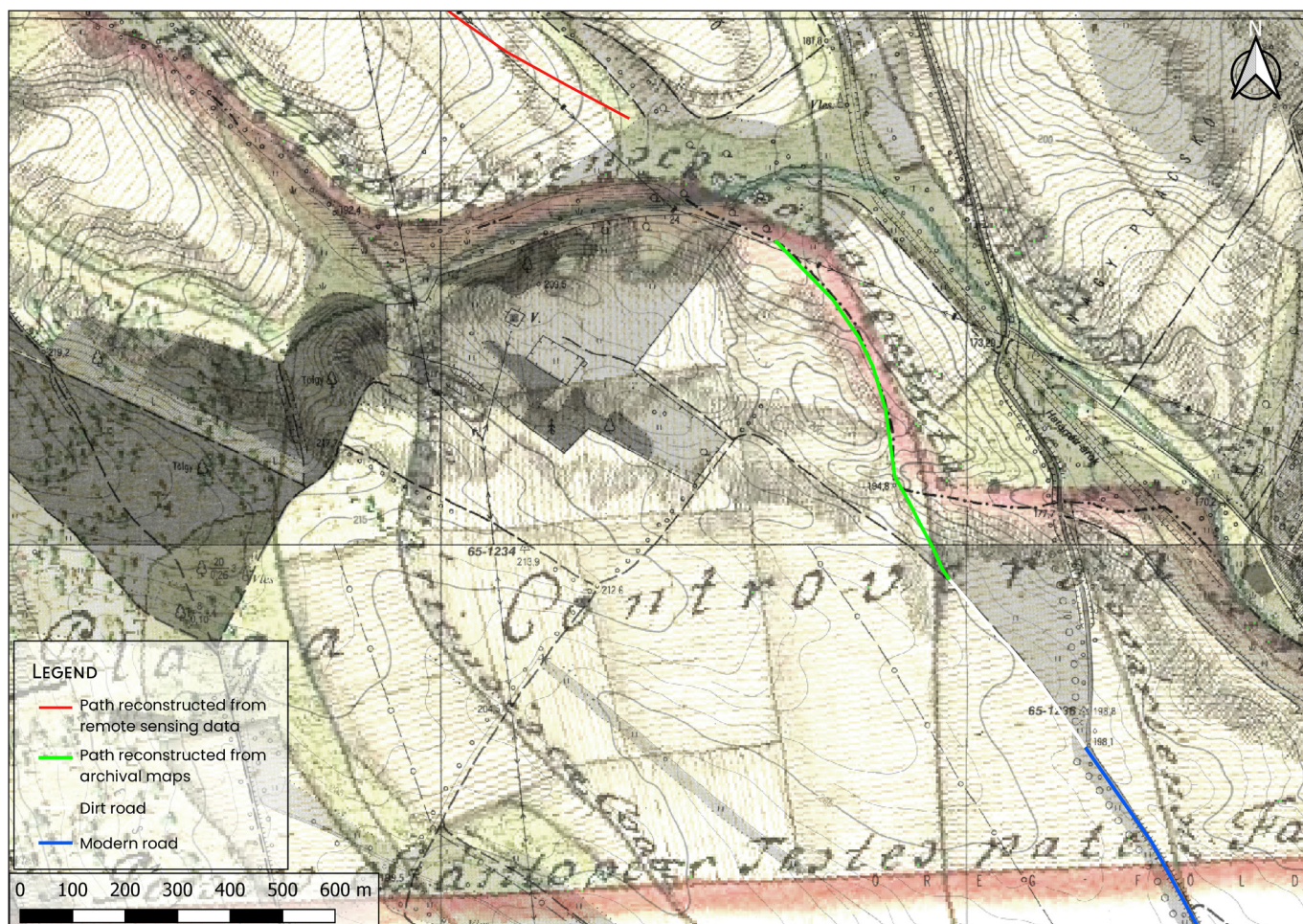


Fig. 7. A section of the diagonal road on the northern outskirts of Pilisvörösvár on a 1767 map (MNL OL, S11 No. 830:84; map by Bence Simon)





*Fig. 8. The remains of the diagonal road, destroyed by ploughing, at the northern fringes of Pilisvörösvár where its path leaves the dirt road (photo by Bence Simon)*

Roman Period and the modern age, attesting to its continuous use throughout the millennia. Besides, we could characterise a specific roadside find assemblage, which includes iron objects of undeterminable age, Roman coins and brooches, and medieval elements of attire (belt buckles, clothing mounts, spur stars) and weaponry (musket bullets, socketed arrowheads).

### SOCIAL RETURN

The project involves the comprehensive, complex archaeological mapping of a Roman rural landscape with active links to the province's capital; such research is unparalleled in Hungary and the neighbouring countries. The sites in the study area are under threat from urban sprawl, highway construction, and intensive agricultural activity, although – as the presented case study shows – they can provide a link between past and present. Not only the presentation of the usual relics but also other elements of the archaeological heritage, such as the impact of the former Roman rural way of life on the landscape, can help strengthen the local identity and raise the interest of the wider public in the past, thus increasing their involvement in the preservation of the values of the past. In addition to its professional relevance, this research can provide heritage professionals and investors with information that will enable the development of new modelling aspects, improve the efficiency of risk analysis, and specify classification, thus helping to preserve elements of the past and serving the needs of today's society.

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