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**CASTRA AND TOWNS IN THE HINTERLAND OF THE LIMES
DURING LATE ANTIQUITY: PANNONIA AND THE PROVINCES
ALONG THE LOWER DANUBE IN COMPARISON**

ABSTRACT

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The present contribution considers the Pannonian ‘inner fortifications’ in the context of the development of the infrastructure and urban fabric of selected sites on the Lower Danube. Using Sándor Sopronis’ thesis, which postulates that a multiple defensive system gradually expanded in Pannonia after the time of the Tetrarchy, as a starting point, this study concentrates on the inner fortifications founded in the middle third of the 4th century AD in the hinterland of the Limes (Környe, Tác/*Gorsium*, Keszthely-Fenekpuszta and Alsóheténypuszta) which, together with towns such as *Sopianae*, *Mursa*, *Cibalae*, *Sirmium* und *Bassianae*, constituted an inner line of defence. Whether they functioned in a civil or purely military context is a subject that has been, and still is, much debated. However, they appear to have played a significant role in the storage, distribution, and perhaps production, of the *annona*.

A similar situation can be observed on the Lower Danube, in the provinces of *Dacia Ripensis*, *Moesia Prima* and *Scythia*. Here too a series of *castra* and towns, which took on similar functions in the course of the 4th century AD, are found some 30 to 50 km from the frontier. This area however saw a further development well into the late 6th century AD: several sites continued to play a central role as the sees of bishoprics in the Early Byzantine Period. The examples of *Abritus* and *Tropaeum Traiani*, which both possess elements that are strikingly similar to the Pannonian establishments, are used here to gain insights into the processes at work and to discuss the structural parallels comparatively.

Key words: Late Antiquity; Pannonia; Lower Danube Provinces; Inner fortifications; Frontier organization; Transformation of settlement structure

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I. INTRODUCTION

There is a long research tradition of investigating the so called “inner fortifications” of Pannonia which were established in the hinterland of the Danube, on the Roman Limes¹. It was A. Mócsy who first drew attention to the links connecting

¹ This paper was written during the research project *Continuity and Discontinuity of Christianity on the middle Danube between Late Antiquity and the High Middle Age* at the GWZO: http://research.uni-leipzig.de/gwzo/index.php?option=com_content&view=article&id=1146&Itemid=1811 (accessed on 28.03.2017).

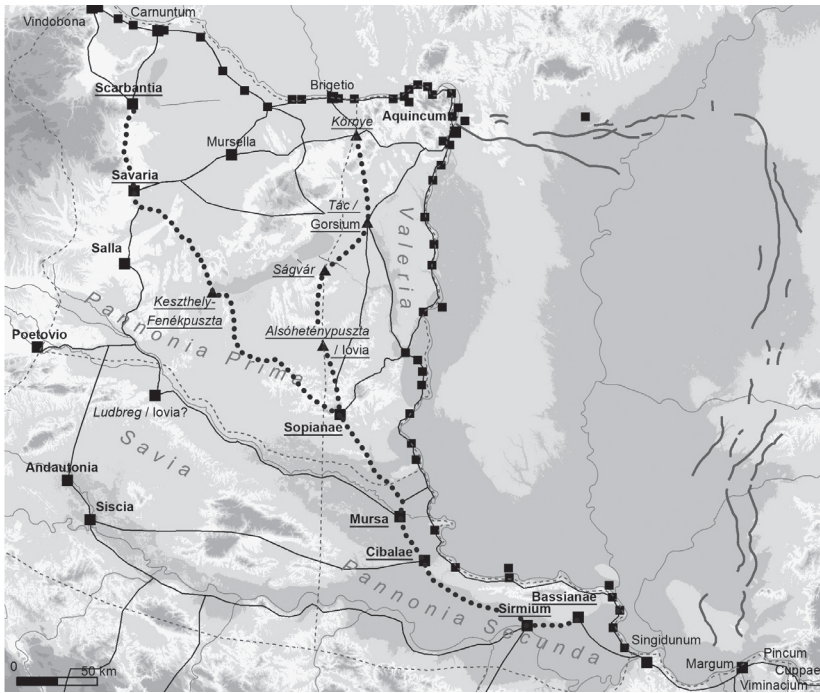


Fig. 1a. Late Roman forts, *castra* and towns (bold) and ‘inner fortifications’ (triangle) in the Middle Danube region (4th–5th century AD) showing the imaginary line(s) of sites behind the Limes (dotted line). The sites mentioned in the paper are underlined; computer design by O. Heinrich-Tamáška

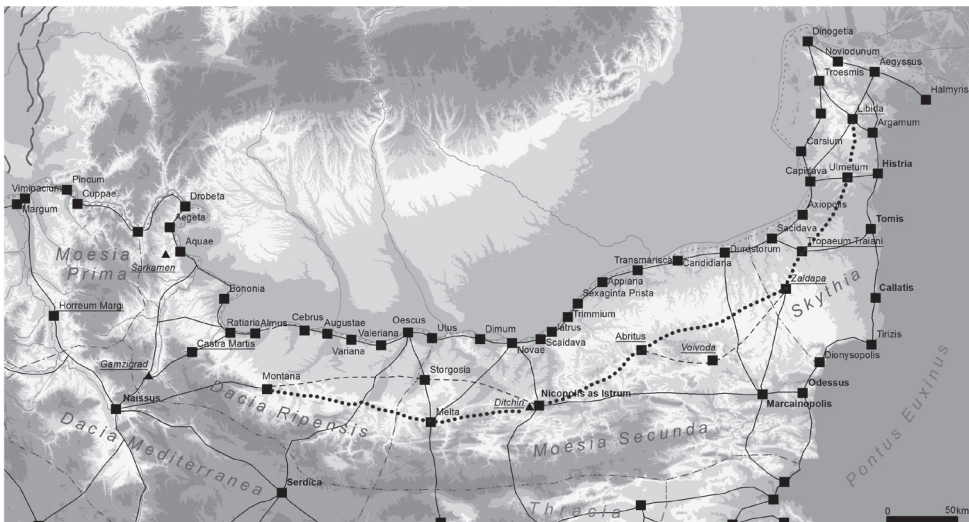


Fig. 1b. Late Roman forts, *castra* and towns (bold) and other sites (triangle) in the Lower Danube region (4th–5th century AD) showing the imaginary line of sites behind the Limes (dotted line). The sites mentioned in the paper are underlined; after G. von Bülow (2007, Fig. 1), modified by O. Heinrich-Tamáška

these *castra* to the Lower Danube area (Mócsy 1962, 700; 1974, 300–305), but later researchers did not consistently follow up on his ideas — despite the fact that many new archaeological results have since become available both for the Pannonian inner fortifications (Fig. 1a)² and for potential comparanda on the Lower Danube (Fig. 1b)³.

The following contribution will focus in particular on some sites along the lower section of the river and examine them in the context of the Pannonian inner fortifications. It will consider in which regions the prototypes for this new kind of establishment are to be found and what their background, as well as the social and political reasons for erecting them were. The article begins by introducing earlier theories regarding the function of the inner fortifications and briefly discusses them in the context of the Late Roman Pannonian infrastructure. The aim is to draw out the administrative and economic structural parallels between Pannonian inner fortifications and other similar sites in the Roman frontier provinces. The second part of this contribution considers parallels from the Balkans, beginning with their similarities in topographical situation, position in the local infrastructure, and site layout. The function of these fortified settlements is then addressed from a comparative perspective. An examination of the functional changes the sites on the Lower Danube underwent after the mid-5th century could help formulate new interpretations for the Pannonian fortifications, even though the historical development in the two regions was quite different. To begin from a common basis, the 4th-century context in which these sites were constructed should be examined first, before turning to the question of their use up to the late 6th century.

II. PANNONIAN INNER FORTIFICATIONS

The term “inner fortifications”⁴ refers to the location of these sites in the hinterland of the *Ripa Pannonica*. The question of the function and legal status of these establishments is deliberately avoided — and for good reason: so far, no written sources which could give a firm answer on this point exist. A. Radnóti’s comments on inner fortifications remain just as valid as they were in 1954, when he stated that: “These sites fortified with walls were not towns as defined by Roman and medieval norms; we cannot say anything definite regarding their legal or social status”⁵.

² Hungarian research prefers the military use and function of these forts. See overview by Tóth 2009, 12–16.

³ A good overview with commonly-cited references can be found in Ivanov 1996; Dinchev 2007; Ivanov 2012; see also Poulter 1992; 1998; 2007b; Băjenaru 2010.

⁴ After A. Radnóti (1941, 105): “les fortifications intérieures”.

⁵ “A fallal körülvevett telepeknek, amelyeket sem ókori, sem középkori értelemben nem lehet városoknak mondanunk, jogi és társadalmi helyzetéről még majdnem semmit sem tudunk” (Radnóti 1954, 499).

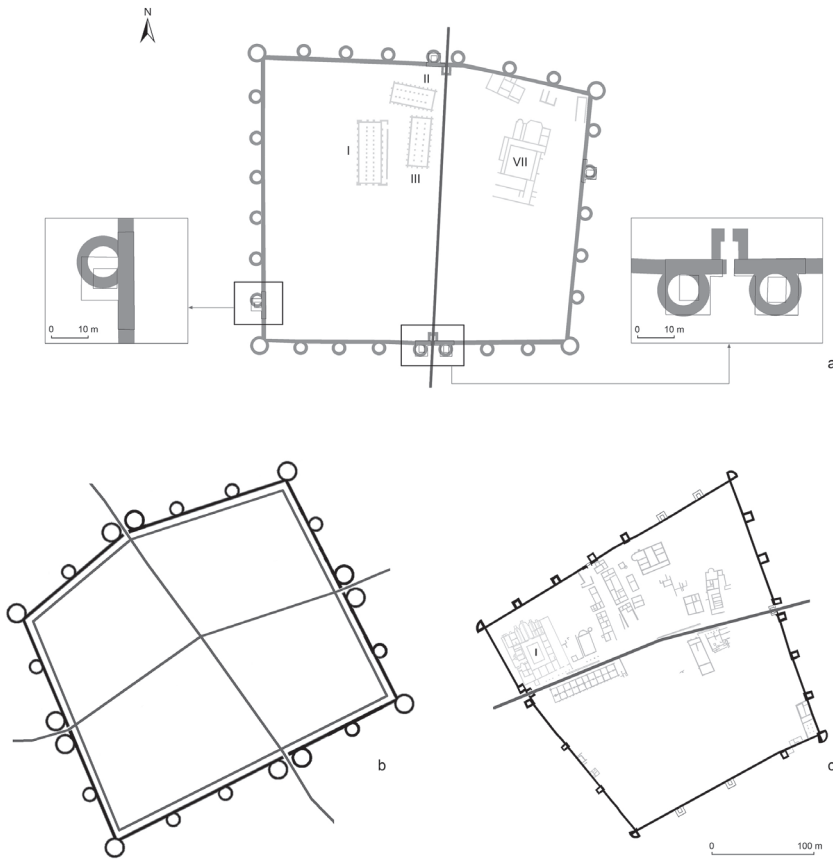


Fig. 2. Reconstructed plans of the small Pannonian 'inner fortifications' (less than 10 ha) based on the archaeological remains of the 4th–5th centuries; computer design by O. Heinrich-Tamáška.

a — Ságvár with the two phases of the towers (see separate drawings). I–III = storage buildings/granaries; VII = peristyle building; after E. Tóth (2009, 27 Fig. 3); b — Környe; after M. Szabó, O. Heinrich-Tamáška (2011, Pl. IV); c — Tác/*Gorsium*: I = peristyle building; after L. Schilling (2012, Pl. VI)

The inner fortifications were new foundations of the 4th century AD in the province of *Pannonia* and were based on a uniform plan. Currently, five sites are classified as belonging to this category: Környe, Alsóheténypuszta, Tác/*Gorsium*, Ságvár and Keszthely-Fenekpuszta. They occupy a surface of between 7 and 20 hectares, have a slightly irregular rectangular ground plan and suggest a common construction concept, reflected in their internal features and in the type and shape of their fortifications (Tóth 2009, 63; Heinrich-Tamáška 2011b, 577f., Figs. 2–5; Heinrich-Tamáška, Müller, Straub 2012, 5–12, Figs. 9–10). At two sites, Ságvár (Fig. 2a) and Alsóheténypuszta (Fig. 3a–b), the fortifications show that an episode of rebuilding took place: the earlier U- and fan-shaped or rectangular towers were dismantled and replaced by new round towers (Tóth 2009, 64–71, Fig. 6; Pl. 12–13). At Keszthely-Fenekpuszta (Fig. 4a–b) and Környe (Fig. 2b), on the other hand, there are only round towers, representative

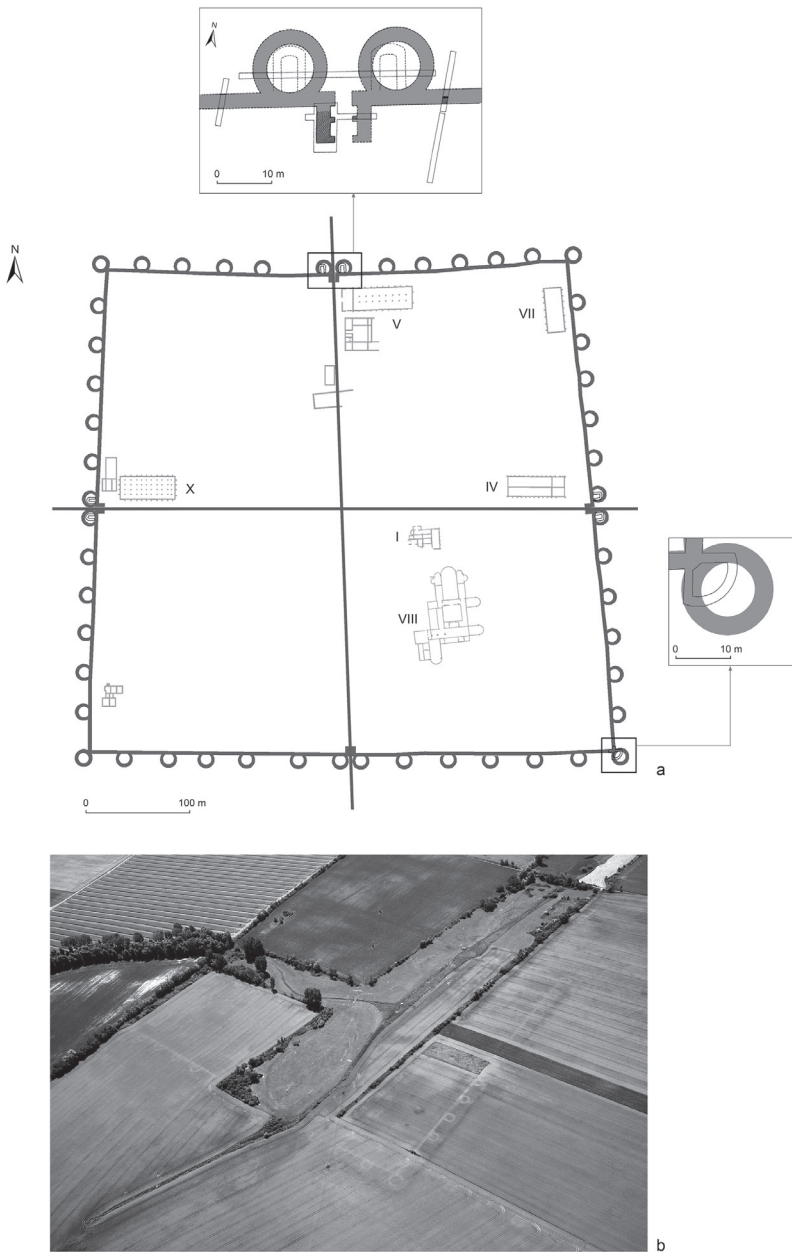


Fig. 3. The “inner fortification” of Alsóheténypuszta in the 4th–5th centuries with the two phases of the towers (see separate drawings); computer design by O. Heinrich-Tamáška.

a — plan based on the archaeological remains with the original numbering of the buildings: I = baths; IV–V, VII = storage buildings; VIII = peristyle building; X = *horreum*; after E. Tóth (2009, 208, Pl. 1 [modified by O. Heinrich-Tamáška]); b — air photograph with the wall and round towers of the fort clearly visible; after O. Heinrich-Tamáška, R. Müller and P. Straub (2012, Fig. 9)

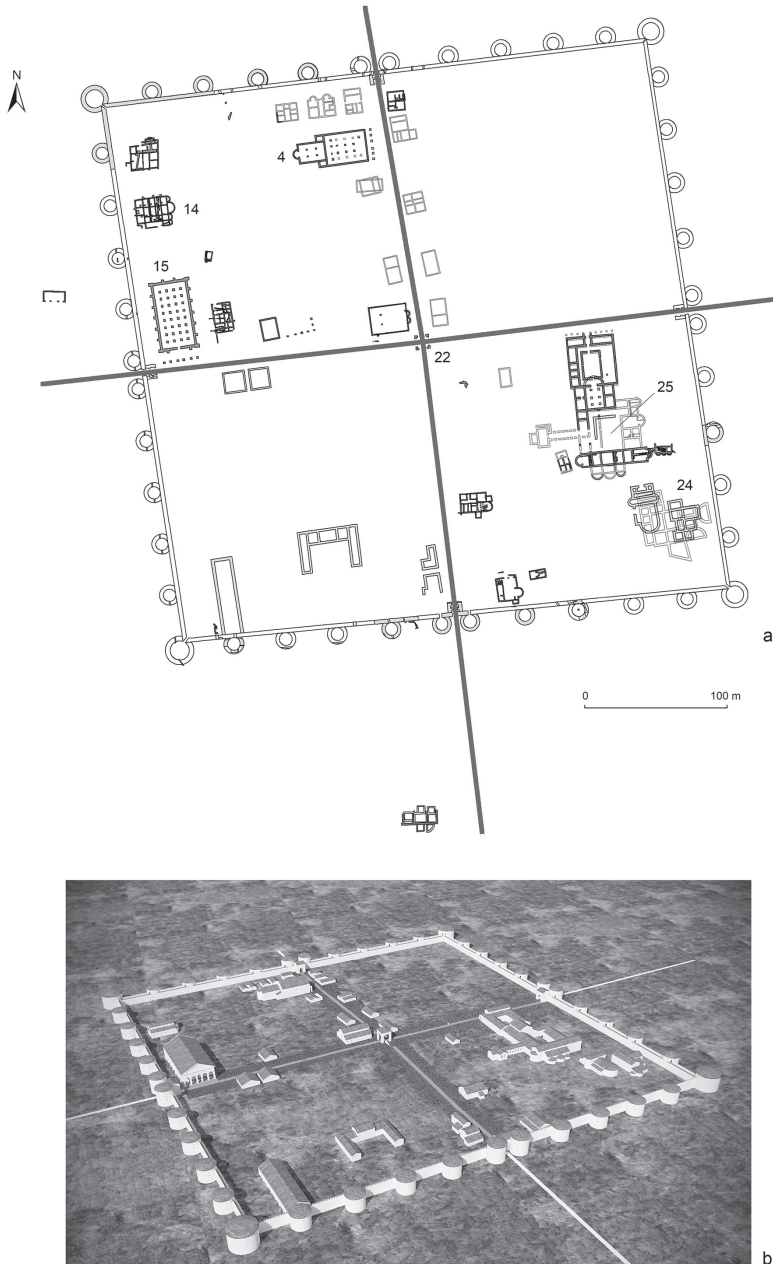


Fig 4. The “inner fortification” of Keszthely-Fenekpuszta in the 4th–6th centuries; computer design by O. Heinrich-Tamáška.

a — plan based on the archaeological remains, with the original numbering of the building: 4 and 15 = *horrea*; 14 = Early Christian basilica; 22 = *tetrapylon*, 24 = bath; 25 = peristyle building; b — CAD-reconstruction of the fort; Narmer Architecture Studio: O. Heinrich-Tamáška, Sz. Schunk, Zs. Vasáros

of the later phase (Heinrich-Tamásk a 2011a, 667–673, Figs. 9–10; Szabó, Heinrich-Tamásk a 2011, 49f., Fig. 2, Pl. IV), while at TÁC only rectangular (Fig. 2c) and no round towers are present, indicating that the rebuilding phase is absent there (Tóth 2008, 68–70, Fig. 2; Schilling 2011, 382, Pl. VI). E. Tóth has suggested that the earlier phase dates to the time of Constantine I, while the later round towers were erected under Valentinian I, after AD 374 (Tóth 2009, 64–71). However, this cannot be the case at Keszthely-Fenekpuszta; here, there is definite evidence of pre-Valentinian building activity in the middle third of the 4th century (Heinrich-Tamásk a 2011a, 694)⁶.

As to the precise location of the inner fortifications in Pannonia, four of the forts lie in the province of *Valeria*. The only exception is Keszthely-Fenekpuszta, which could have belonged to *Pannonia Prima*. However, there are conflicting opinions on the exact line of the boundary between the two provinces (Tóth 2006, 151). From this point of view it is also important to ask why precisely these locations were chosen for the construction of the fortifications, at a micro-regional as well as at a provincial level. Why are there no such sites in *Savia* and *Pannonia Secunda*, or in the north-western and south-western parts of *Pannonia Prima*?

A look at the map (Fig. 1a) shows that the inner fortifications were in fact built into the gaps in the province's network of towns and were sited along the main roads. S. Soproni had already suggested that the distribution of Pannonian towns (*coloniae* and *municipia*) and inner fortifications should be seen as part of a coherent system (Soproni 1978, 138–155). He interpreted them as components of interior lines of defence, which formed a last part of a multiple defensive system with the *Ripa Pannonica* and in the foreland with the so called *Limes Sarmatiae* (Csörsz or Devil-Ditch: Fig. 1a; see Garam, Patay, Soproni 2003). In the hinterland one route led from *Scarbantia* via Keszthely-Fenekpuszta to *Sopianae*, Ságvár (?) other from Kisárpás — which at the time was thought to be an inner fortification — via Környe, and Alsóheténypuszta and also ending in *Sopianae*. According to the current state of research, Kisárpás is an unfortified *municipium* and not an inner fortification (Szónyi 2004, 97; Szabó 2007; Tóth 2009, 17–19) and so cannot be at the beginning of the second line, while TÁC/*Gorsium* needs to be added (Tóth 2008, 68–70). In this way, a clear line running parallel to the north-south section of the Pannonian Limes appears; the sites are set back some 50 km from the Danube. This line could be extended even further south to *Bassianae* by including the towns of *Mursa*, *Cibalae* and *Sirmium*. In this section, the distance to the Danube is roughly halved (Fig. 1a). *Mursa* (Filipović 2004, 160f., maps 4–6), *Sirmium* (Mirковиć 2004, 151f., Fig. 1; Popović 1982, Fig. 3) and *Bassianae*⁷ were fortified by stone

⁶ For a comparison of different chronological approaches, see Heinrich-Tamásk a 2009, Tab. 2.

⁷ The plan of the site is only known from an air photograph (Milin 2004, Fig. 4:a, c). New geophysical investigations have been taken 2015 by L. Boltzmann Institute for Archaeological Prospection and Virtual Archaeology, Vienna in cooperation with the Archaeological Institute Belgrade. Thanks for this information V. Ivanišević.

walls and a system of towers⁸, at *Cibalae* only a ditch-and-rampart construction is documented (Iskra-Janošić 2004, 178f., Fig. 10). Keszthely-Fenekpuszta alone lies at a greater distance from the Danubian Limes and outside this line. The site is located on the way from *Carnuntum* to the southeast and is thus included in part of the amber road and linked diagonally with *Sopianae* (Fig. 1a).

In no way can it be suggested that the Pannonian inner fortifications were actually towns, but they must be seen within the whole infrastructure and defence system of the region, as an organic part of it, like *municipia* and *coloniae*. Nevertheless the label ‘inner fortification’ can only be used as an archaeological technical term, carrying no specific meaning about the legal status of these sites.

The micro-regional, geographical situation of the inner fortifications must be addressed. The sites were established on level ground, so that a regular rectangular plan could be realised without difficulty. They are also close to water links: close to Lake Balaton, as at Keszthely-Fenekpuszta and Ságvár or near a stream, like the sites of Környe, Tác or Alsóheténypuszta. Although the forts were built on flat areas, they could be well defended: they were enclosed by water or marshy areas or were situated behind low hills in valleys (Heinrich-Tamáská 2008, 261, Figs. 2–6; Tóth 2009, 72f.). In combination with the walls and towers the defensive character of these sites seems to be an element of primary importance⁹.

Recent Hungarian scholarship has tended to concentrate on comparing the sites to each other, rather than search for analogies outside Pannonia. L. Borhy drew attention to the fortifications in the hinterland of the provinces of *Belgica Prima* and *Germania Secunda* (Borhy 1996)¹⁰. Just as the Pannonian inner fortifications, these sites (Bitburg/*Beda vicus*, Jünkerath/*Icoregium* or *Egoregio vicus* and Neumagen/*Novios magos*, *Noviomagus Treverorum*), which date to the time of Constantine, share a common layout and function. Located in the hinterland of the Rhine Limes, they have a round to oval ground plan and round towers, as well as a rectangular internal component. Their function can be elucidated by a quotation from Ausonius concerning *Belgica*, which suggests that these sites, built for protection in threatening times, are no longer fortifications, but should be seen as *horrea*¹¹.

⁸ This is not the time to address the problem of when the individual sites were fortified, as in several cases there is no reliable data published on this aspect. However, we can be certain that the towns shown here as fortified were already surrounded by walls when the inner fortifications were built in the 4th century. On this topic, see Borhy 2007.

⁹ A ditch-and-rampart system is documented to the north of the fort of Keszthely-Fenekpuszta: Heinrich-Tamáská 2011a, 672f., Pl. X.

¹⁰ Earlier than L. Borhy, A. Radnóti gave examples of round towers from the Rhineland (Radnóti 1954, 496).

¹¹ Cited in Borhy 1996, 220, Footnote 29.

According to Borhy's research, further sources support the idea of a role in the military supply network. Ammianus Marcellinus describes a similar site near to the sea *Palae*¹² in *Isauria* in *Asia Minor*. The words *locus* and *munimentum*¹³, which are used for this site with grain depot for the troops, are relatively general and are not exact terms for these fortifications, though they do hint at their function. Ammianus Marcellinus also stresses the importance of rebuilding of *horrea* in the province of *Germania* at the time of Emperor Julian¹⁴.

The importance of the *horrea* or storage buildings in the conception of the Pannonian inner fortifications is clear. However, with reference to the examples chosen by L. Borhy, there are actually other sites near the Limes whose size and function is more closely comparable to those of the north-western provinces: for instance Tokod in *Valeria* (Mócsy 1981, esp. Fig. 50), *Iatrus* in *Moesia Prima* (overview von Bülow 2007; 2011, 258–261; 2016) or Ditchin in *Moesia Secunda* (Poulter 2007a, 82–96)¹⁵. This discussion makes frequent reference to an inscription from *Savaria*, dated to between 347 and 352, in which Vulcatius Rufinus *praefectus praetorio* orders the construction of *horrea* in well-protected locations (CIL III 4180). Nevertheless, in those cases where information on the interior of the inner fortifications is available, *horrea* and other storage buildings are present, often in several exemplars, as at Ságvár, Alsóheténypuszta and Keszthely-Fenekpuszta (Fig. 2a, 3a–4b; Tóth 2009, 63). In addition, numerous iron tools document the diverse agricultural and craft activities carried out on these sites (Rupnik 2013, 499–512). In E. Tóth's view, these are "storage places defended and controlled by the military, where the food supplies for the troops stationed in the fortifications of the Limes were collected, processed and stored. [...] Along the Limes defences, these food and raw material depots were vulnerable to enemy attacks and destruction [...] and were therefore moved to the hinterland and kept in central places"¹⁶. In addition to their military use, there is also a theory about occasionally accommodating units of *commitatenses* in these places (Soproni 1978, 138; Fitz 1980).

However, in Late Antiquity it is not only military installations, but also civilian settlements, first and foremost fortified towns, that played an important role in the system of administration and distribution known as the *annona militaris* (Dinchev 1999, 168–170, Fig. 2; Schwarcz 2004, esp. 106f.; Poulter 2007b, 36–41; Rizos 2013, esp. 659f.). This is rarely discussed with reference

¹² "[...] ubi conduntur nunc unque commeatus distribui militibus omne latus Isauriae defendentibus assueti." (Amm. Marc. 14.2.13., p. 20).

¹³ *Ibidem*.

¹⁴ Amm. Marc. 18.2.3–4, p. 406, 408.

¹⁵ For a comparison between Tokod and *Iatrus*/Krivina, see Heinrich-Tamáská 2017, p. 48f., 52–54.

¹⁶ "Olyan, katonai védelem és ellenőrzés alatt álló raktárbázis, ahol össze gyűjtötték és feldolgozták az élelmiszert és nyersanyagokat és ahonnan egy egyes limestáborokat elláták. [...] az ellenséges rablásnak, felgyűjtásnak, fosztogatásnak kitett limesmenti katonai táboraiból [...] élelmiszer és nyersanyagraktárakat hátravonták a limes mögé, és nagy központosított helyeken őrizték" (Tóth 1987–1988, 36).

to Pannonia. At *Sirmium* and *Cibalae* the presence of *horrea* could also be verified (Duval, Popović 1977; Iskra-Janošić 2004, 180; Mirković 2004, 151–155, Fig. 5)¹⁷.

III. SIMILAR EXAMPLES FROM THE PROVINCES OF THE LOWER DANUBE

In the following, the comparanda for the Pannonian inner fortifications along the Lower Danube are examined in more detail. A. Mócsy had already pointed out the relevance of this region, with particular reference to *Romuliana*/Gamzigrad in *Dacia Ripensis* and *Abritus*/Razgrad in *Moesia Secunda* (Mócsy 1962, 700; 1974, 303–306). Both are located in the hinterland of the Limes, around 50 km from the Danube (Fig. 1b). Mócsy argued on this basis that the Pannonian inner fortifications were *latifundia*, and on the basis of a comparison with *Romuliana* could even have been imperial *latifundia*¹⁸. In the current state of research this no longer seems probable, but the basic idea concerning food supply and storage provides a link to the considerations on the administration of the *annona* briefly outlined earlier. In addition, new evidence from Gamzigrad suggests that the site was in use up to the 7th century, although it is not yet clear how the change in function after the Galerian palace phase would have played out in detail (Petković 2011a; 2011b). Geophysical surveys in the surroundings of the fortified palace area have identified, among others anomalies, traces of a walled *horreum* (von Bülow *et al.* 2009, 115f., Fig. 7). A similar situation exists at Šarkamen, a “twin” to *Romuliana* that was never completed; there a fortified *horreum* is located to the north-west, outside the villa-palace (Vasić, Tomović 2005).

Late Antique *Abritus* (Fig. 5a) constitutes the other example cited by A. Mócsy (1962, 700; 1974, 303–306), and later, together with Gamzigrad, by L. Barkóczy and Á. Salamon (1984, 151f., Figs. 5, 7); it is far more closely comparable to the Pannonian fortifications than Gamzigrad. Its defended area of around 15 hectares corresponds exactly to the size of Keszthely-Fenékpuszta, while its roughly rectangular layout, U-shaped towers along the walls and fan-shaped corner towers are almost identical to the first construction phase at Alsóheténypuszta (Ivanov 1980, 221–226; Radoslavova, Dzanev 2003, 128–130; Heinrich-Tamáška 2011b, Fig. 2a; Carrié, Moraueu 2015, esp. 605f., Fig. 1; Heinrich-Tamáška 2015b, Fig. 2). Even the dating is comparable, E. Tóth has dated the first phase of Alsóheténypuszta to the reign of Constantine (Tóth 2009, 70f.), and T. Ivanov has reached a similar conclusion

¹⁷ See also an overview by Póczy 1980, esp. 253, Footnote 49; Vasić 2013. On the *horrea* and fortified parts in the Pannonian towns in the territory of present Croatia, see Lolić, Wiewegh 2012, 199–207, 213f. and for the Balkan provinces, see Rizos 2013, esp. 665–684.

¹⁸ He means also, that: “Late Roman imperial seats were often regarded and furnished as a *castra*” (Mócsy 1974, 306).

for *Abritus* (Ivanov 1980, 221–226). The alternative theory, dating *Abritus* to the time of the Tetrarchs (Ivanov, Stojanov 1985, 16–18), also finds parallels in Hungarian scholarship, as K. Sági has suggested this date for the first construction phase of the inner fortifications (Sági 1989, 262f.). The execution of the defence works at *Abritus* shows that they were built quickly, and many *spolia* from earlier cemetery sites were used as building material (Ivanov 1980, 221–226; Ivanov, Stojanov 1985, 10–16; Radoslavova, Dzanev 2003, 128–130). E. Tóth similarly observed that *spolia* were used in the construction of Alsóheténypuszta (Tóth 2009, 122–124)¹⁹. Inscriptions at the latter site led E. Tóth to suggest that a *municipium* of the middle Imperial Period had existed in the immediate surroundings of Alsóheténypuszta (Tóth 2009, 50–53). This idea has found support from aerial photographs, which show traces of such a fortified settlement with a *forum* some 8 km north of the Late Roman fortification (Bertók 2000)²⁰. Another, somewhat similar situation can be observed at Tác/*Gorsium*, where a settlement destroyed and abandoned in the mid-3rd century was resettled and fortified with a wall in the 4th century (Fitz 2004; Tóth 2008, 65–69).

All these examples indicate that the so-called “new foundations” of the 4th century were not without local predecessors (Rizos 2010, 61f.)²¹. In some cases, the new element is their fortification, or an earlier *municipium* existed nearby. Moreover, the next example, *Tropeaum Traiani*/Adamclisi in *Scythia Minor*, had seen continuous settlement as a *municipium* from the 2nd century onwards (Barnea 1979; see e.g. Cătănciu 1999). However, the site was completely rebuilt for the protection of the border (*ad confirmandam limitis tutelam*) in the 4th century and acquired the name *civitas Tropaeensium*, an episode dated very precisely to the year 315/17 thanks to an inscription (Popescu 1976, No. 169, 183, 185). The fortified area with U-shaped towers enclosed around 10.5 hectares, all in all resembling the smaller inner fortifications of Pannonia with two gates (fig. 2a, c) and with towers similar in form to those of the first phase of Alsóheténypuszta (fig. 3a). Despite the irregular plan of the defensive wall, the inner structure of the site is articulated by a main road axis between the west and east gates (Fig. 6a; Mărgineanu-Cărstoiu, Barnea 1979). Two other examples, Voivoda and Slava Ruša/*Libida*? were noted by A. G. Poulter (1983–1984, 121f.) in this context. These sites were also built in the late 3rd or early 4th century and cover an area of 17 and 7 hectares respectively with a wall and U-shaped towers similar to the previous examples (Ștefan 1977; Mischka, Rubel, Jacob 2015, Figs. 2, 9; Wendel 2005, 44–54, map 2a–b).

Furthermore the infrastructural involvement of these *castra* and of *Tropeaum Traiani* and *Abritus* is similar to the situation of the inner fortifications

¹⁹ To the evaluation of this finds, see Mráv 2009.

²⁰ Some new air photographs were taken by the University of Pécs and evaluated as part of a bachelor thesis at the University of Pécs (my thanks for this information to Dr. Á. Szabó). Furthermore, excavations was started 2015 at this site by the University of Pécs.

²¹ In a broader context see the contributions in: Rizos (ed.) 2017.

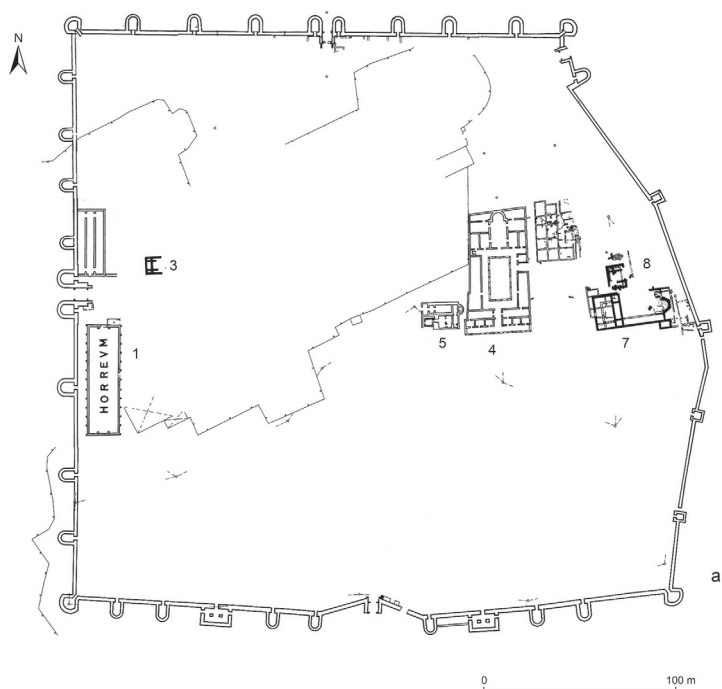


Fig. 5. *Abritus/Razgrad* in the 4th–6th centuries; computer design by O. Heinrich Tamáska.
 a — plan based on the archaeological remains, with the numbering of the buildings: 1 = *horreum*; 3, 5, 7–8 = churches; 4 = peristyle building; after G. Radoslalova (2011, Fig. 2); b — photograph of the court of the peristyle building in the present-day archaeological; Photo O. Heinrich-Tamáska

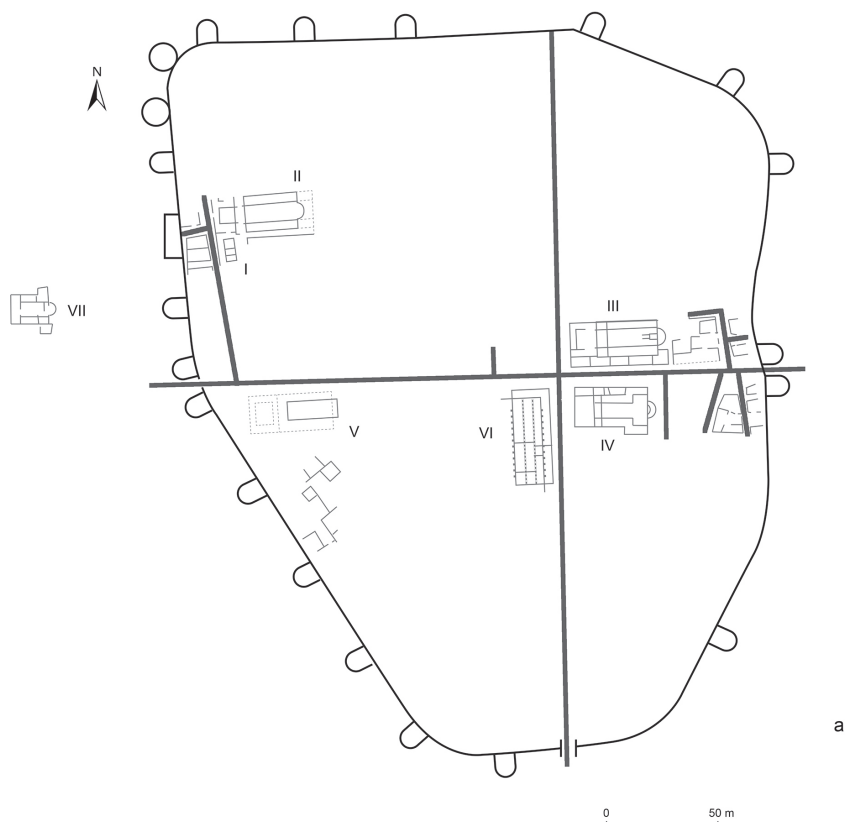


Fig. 6. *Tropeum Traiani/Adamclisi* in the 4th–6th centuries;
computer design by O. Heinrich Tamáska.

a — plan based on the archaeological remains: I = baptisterium; II–V Early Christian churches intra muros; VI = horreum; VII = Early Christian church extra muros; after M. Mărgineanu-Cârstoiu, A. Barnea (1979, 126, Fig. 107); b — photograph of the horreum (No. VI) formerly *basilica forensis* (see note 26); after R. Born (2012, Fig. 138)

in Pannonia, as described above. They too are situated with other towns and forts along a road parallel to the Lower Danube Limes, at a distance of around 30 to 50 km. This route led from *Ratiaria* over *Montana*, *Melta* (or *Storgosia*), *Nicopolis ad Istrum* (Poulter 1995, esp. 28–47, Fig. 10) to *Abritus/Razgad* and from there to *Scythia Minor*, to *Zaldapa/Voivoda* (Torbatov 2003), *Tropaeum Traiani* and *Slava Ruša/Libida* (?; cf. Wendel 2005, 63–74, map 3a–b). The function of these sites was also interpreted, as “practically a belt of large inner fortifications representing important bases for the *comitatenses* units” and were “used as supply bases for the forts along the *limes*” (Băjenaru 2010, 29f.). Further sites to the west, like *Horreum Margi*²² and *Castra Martis* (Atanaseva et al. 2005, 31–46) could be invoked in this context. This and some of the other *castra* referred to above are towns and they form part of the entire supply system of the *annona*, similar to the situation in Pannonia. This shows that Late Roman towns were used by the military, notably as “secure bases and food reserves” (Poulter 1983–1984, 127).

IV. INTERIOR BUILDINGS AND LAYOUT IN COMPARISON

The regular layout of the inner fortifications is striking; they are oriented along one or two main axes. This is analogous to the layout of Roman forts with a *via principalis* and a *via praetoria*, although these terms are not used in Hungarian research, despite the military interpretation of such sites. However, some of the buildings inside the fortifications are referred to as *praetoria* and *principia*²³.

The regular structure of the interior of the fortifications suggests a planned layout: at *Tropaeum Traiani*, the excavators used the few known streets to reconstruct an ideal layout of the initial phase of the site, which consisted of veritable *insulae* (Fig. 6a; Mărgineanu-Cărstoiu, Barnea 1979, esp. Fig. 106; Mărgineanu-Cărstoiu 1984)²⁴. At the crossroads of the *cardo* and *decumanus* were the remains of an *arcus quadrifons*²⁵. The same type of structure, interpreted as a *tetrapylon*, was documented at Keszthely-Fenekpuszta, also centrally located at the intersection of the two main streets (Fig. 3a; Heinrich-Tamáška 2011a, 687, Fig. 12,1, 2c; 2015b, esp. Fig. 3; 2017, Fig. 2). This can be cited as a further element of the spatial urban order: its oblong plan and/or the different design of the façades created a hierarchy for the streets which intersected at the building, as is also shown by examples

²² This is interpreted as a *municipium*: Vasić 2013, 90f., Fig. 27; see also Vasić et al. 2009.

²³ See e. g. Keszthely-Fenekpuszta in overview with literature above: Heinrich-Tamáška 2011a, 675–677.

²⁴ Despite Andrew G. Poulter’s view about: “[...] any evidence for a planned urban grid of streets or regular *insulae* for housing.” (Poulter 1992, 129). I cannot agree with this opinion on the basis of the published plans; besides, the classical Roman cities show a denser structure.

²⁵ Unpublished. This oral communication was obtained from the excavator and R. Born pointed to this fact (Born 2012, 114, Footnote 153).

from North Africa and the Empire's eastern provinces (Mühlenbrock 2003, esp. 26–28). This important element was combined with another component: a line of columns, or rather *portici* of the main buildings along the *decumanus* and/or *cardo* (Fig. 3a; 6a). J. Crow proposes that these Lower Danubian foundations: “[...] owe more to the organisation of Tetrarchic military camps, combining a cruciform road pattern with a central *tetrapylon*, than to established urban typologies of colonnaded armature” (Crow 2007, 451). A. G. Poulter also suggests, that “In the case of Tropeaum Traiani and Abritus, the style of the fortifications is so similar to the Tetrarchic fortifications of the Danubian frontier that it is likely that military engineers were involved in their planning and probably also their execution” (Poulter 1992, 119; see also 1983–1984, 122). However, these architectural characteristics arise from urban typology and bring to mind how military and civil elements and planning were connected during Late Antiquity.

With respect to the function of the buildings in the interior, *horrea* have already been discussed above (Rizos 2013, esp. 659f.). Such a *horreum* was also found at Abritus, where it is located directly adjacent to the west gate (Fig. 6a), just as at Alsóheténypuszta and Keszthely-Fenekpuszta (Fig. 3; 4a) and at Tropeaum Traiani, there in the middle of the fortification (Fig. 6b)²⁶. A military involvement and imperial directive can also be seen in the building of such *horrea* in Pannonian towns (Póczy 1980, 253, Footnote 49). These places accommodated praesidial and ducal *official* all at once (Poulter 1992, 119).

In this context the so-called principal buildings constitute a further important element. Their function has been variously debated, but their architectural roots lie in *villa* architecture, more specifically in *villae* with peristyles such as Building 1 in the well-investigated *villa rustica* at Baláca²⁷. However, the size of the principal buildings at Keszthely-Fenekpuszta and Alsóheténypuszta is striking, reaching up to 100 m in length and 50 m in width. Compared to the *villae*, the elaboration of their interiors is rather modest: there are no mosaics, rich wall paintings or tasteful sculptures (Heinrich-Tamáská 2011c). There are also differences in date, as Building 1 at Baláca is said to have reached its final form by the beginning of the 3rd century (Palágyi 2011, 248f., Fig. 2). Nevertheless, it is strikingly similar to Building 1 at TÁC, although there this latest layout is dated to the 4th century. But it must be pointed out that in this case several phases are present, and some scholars doubt that this particular layout dates to the 4th century (Palágyi 2009). The principal buildings — without excluding the possibility that earlier phases were present — at Alsóheténypuszta, Ságvár and Keszthely-Fenekpuszta are thought to be contemporary with the erection of the inner fortifications, that is to say the 4th century. However, this cannot be confirmed in all cases, as at TÁC/*Gorsium* (Gáspár 2002, 129–134).

²⁶ A. G. Poulter interpreted the *basilica forensis* as a *horreum* (Poulter 1983–1984, 119; 2016, 184f.).

²⁷ For a general overview, see Thomas 1964; Mulvin 2002; to Baláca, see Palágyi 2009.

The excavator of Alsóheténypuszta mentions two phases of construction, but has yet to publish any stratigraphic information (Tóth 2008, 48f., Pl. 17). The area of *Abritus* later chosen for the peristyle *villa* initially boasted four rectangular buildings whose north and south façades were oriented along the main east-west oriented street. The newly-built peristyle *villa* was constructed over two *insulae* and, after a further episode of rebuilding, remained in use until the end of the 6th century (Ivanov, Stojanov 1985, 27–34, Figs. 27, 29–30; Radoslavova, Dzanev 2003, 130–136, Figs. 46–49). The recent excavations at Keszthely-Fenekpuszta also show that Csák's published plan of the *villa* must be revised: there are indications of both an early apsidal phase dating to the late 3rd century and of two phases with a peristyle courtyard, the later yielding 6th-century material²⁸.

Apart from their architectural characteristics, the principal interior buildings of the inner fortifications must be seen in their wider surroundings, and in this they are comparable to those of the *villa* economy. For example, baths, outbuildings and other functional structures of various sizes are present in the *villae* as well as in the fortifications (Heinrich-Tamáská 2011a, 673–691; Heinrich-Tamáská, Prien 2013, 626–633). Different opinions have been expressed, even concerning the main building at *Abritus*: some assume a public building, supposedly the headquarters of the *annonae* administration, others think it was used as a private residence (Ivanov, Stojanov 1985, 27–34). A. G. Poulter has called it a *villa urbana* and supposed that it resembled more the *principia* at *Iatrus* than any civic administrative buildings (Poulter 1983–1984, 118). It must be added that the function of this structure in the 4th century need not be the same as the purpose it served in the 6th century.

In conclusion, the arguments for a military use of these sites are mounting — in the context of the defence of the 4th-century Limes organisation and militarisation of the countryside. That implies the abandonment of the *villae* and instead using of hill-top sites, as shown by the investigations on the Lower Danube (Poulter 1983, 97–100; 2004; 2016). Nevertheless, the differences between the Pannonian and Lower Danubian examples can be seen in the fact that the latter were defined as “towns, *civitates*” (Poulter 1983–1984, 121)²⁹, in contrast to the inner fortifications on the Middle Danube. Moreover, despite the absence of a civilian administration a civilian population must have resided in these *castra*, which were erected on imperial instructions (Poulter 1983–1984, 122; 2004, 244–246).

²⁸ My own unpublished excavations with P. Straub and R. Prien. See a short summary about this building in Heinrich-Tamáská 2011c, 239–242, Figs. 5–6. The results should be published briefly in *Castellum Pannonicum Pelsonense* 8.

²⁹ For *Tropeaum Traiani* see Cătănicu 1979.

V. EARLY CHRISTIAN CHURCHES AND NEW FUNCTIONS

Finally, one further structural element present in this kind of *castra* must be considered: the churches. At least three churches are known to have existed in 5th- and 6th-century *Abritus* (Fig. 5a; Ivanov, Stojanov 1985, 39f.; Radoslavova, Dzanev 2003, 130–136, Fig. 51; Oppermann 2010, 128f.; Radoslavova 2011, 251, Figs. 3, 6), and this phenomenon is also documented at *Tropeaum Traiani* (Fig. 6a) *extra* and *intra muros*³⁰. From the 5th century onwards, these sites are also referred to as the sees of bishops, indicating a change in function³¹. At the time the sites were first established, their use centred on the administration of the *annona* and hence on a combination of military and civilian functions; later on, the Church adds a new administrative level, in which bishops assumed power until end of the 6th century (Duval, Popović 1980; Herrin 1987, 72–75; Poulter 1992, 123–131; Curta 2002, 48–53; Schwarcz 2004; Madgearu 2010).

The idea of a re-structuration along these lines was discussed for the Pannonian area too by L. Barkóczy and Á. Salamon. Along the border, some forts, such as Tokod, became “border towns” after 430, while the authors cite Christianity as a new force in the interior of the province, as at Keszthely-Fenekpuszta, *Scarbantia* or *Tác/Gorsium* (Barkóczy, Salamon 1984, 171–178, 184; Heinrich-Tamáská 2017, 44–48). However, for Pannonia, the problem, on the one hand, is that it remains difficult to identify churches and, on the other hand, that the province is thought to have been abandoned after AD 430/433 (Christie 1992, 322–326; Bratož 2002; Tóth 2009, 159–189)³². This is considered to have fundamentally influenced the onward development of this region³³.

At Keszthely-Fenekpuszta, a definite early Christian church can only be dated to the 6th–7th century (Fig. 3a); it is thus a much later foundation than those along the Lower Danube (Curta 2002, 57–68; Heinrich-Tamáská 2010, 101–107). The churches at *Tác* could not be confirmed archaeologically (Gáspár 2002, 129–134; Heinrich-Tamáská 2011b, 580–586), and at Alsóheténypuszta, in whose vicinity Tóth situates the bishopric of *Iovia*, a planned abandonment of the site is said to have taken place in AD 430/433 (Tóth 2009, 119–136)³⁴. This implies that the post-Roman development of the inner fortifications was quite diverse. The disintegration of the Roman supply network led to the development of individual, local solutions which were not coordinated by any central

³⁰ For a summary with references, see Oppermann 2010, 98–108; Atanassov 2012, esp. 365–373; Born 2012, 115–130; for *Scythia Minor* see Ellis 2005, 247–249.

³¹ About early Christianity in the region of *Skythia*, see Oppermann 2010, 36–49. On the role of churches and bishops in the Late Antique cities, see Poulter 1992, 117–131; 2007c, 15–27; Rizos 2010, 350–377.

³² For the evidence of churches in Pannonia, see the critical studies of Migotti 1997; Gáspár 2002. To early Christian Churches in northern *Illyricum* (esp. Pannonia) see Heinrich-Tamáská 2016.

³³ From the historical point of view see Bratož 2011.

³⁴ For the Early Christian traces at *Iovia* in present-day Ludbreg, see Migotti 1997, 23–25.

power. This process is clearly illustrated in the case of Keszthely-Fenekpuszta (Heinrich-Tamáska 2009, 208–220; 2011b, 580–586; 2015a, 48–58)³⁵.

VI. CONCLUSIONS

In sum, the examples from the Lower Danube discussed here show clear parallels to the Pannonian inner fortifications in planning and layout. Their military, defensive function and their role in the administration of the *annonna* and possibly also production during the Late Roman Period are significant both there and in Pannonia. In addition, their topographical location is similar: they are situated in the hinterland, away from the border but along the main routeways. Following Poulter, these are “military-cum-civilian sites” (Poulter 2007b, 36), a successful combination of defence for the civilian population and military supply. Nevertheless in the Lower Danube provinces of the 4th–5th century these *castra* are called Late Roman “towns”, despite the Pannonian examples.

Clear divergences however already begin to appear in the course of the late 5th century, a process that can be explained by the different political developments the two areas followed. After the abandonment of the province, the Pannonian inner fortifications were no longer part of the imperial administration; their further development follows an independent path. Along the Lower Danube by contrast, their transformation can be traced in Late Antique-Christian centres as late as the end of the 6th century. In Pannonia it is more difficult to see a continuity up to this date, but it is certainly attested at Keszthely-Fenekpuszta and possibly also at *Tác/Gorsium*; the Church may have played a role in this context (Curtá 2002, 57–65; Heinrich-Tamáska 2011b, 580–586; 2016). However, in the absence of written evidence, the other individual features, and even more so the administrative-legal status of the Pannonian sites, remain hard to interpret. Nevertheless the comparison with the Lower Danube area provides new ideas for the interpretation of these *castra* in Pannonia.

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³⁵ More generally for Pannonia, see Christie 1992; 2000; Vida 2011; Heinrich-Tamáska 2016.

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