Abstract
Although the overall topography of Brigetio is more or less clear, as some of the Roman ruins were still visible in the 19th century, not much was known about the civil town, the municipality of Brigetio. The research excavations of 1992-2011 have brought to light the remains of several Roman houses, workshops and two streets. This part of the town was inhabited by the Romans from the very beginning of the 2nd century AD to the second half of the 3rd century AD. At the end of the 2nd century AD the elongated dwelling houses were fit with hypocaust heating systems and richly decorated with wall paintings. Like other cities in Pannonia, Brigetio also had its most prosperous times under the Severan dynasty. The paper presents the architectural results of the twenty years of archaeological investigation of the site.

Keywords
Brigetio · municipality · roman houses (domus) · archaeological excavations

1 Topography
Roman Brigetio, located on the right side of the Danube, was one of the four legionary bases of Pannonia. As with the others, Carnuntum (Bad Deutsch-Altenburg), Vindobona (Vienna), and Aquincum (Óbuda), Brigetio consisted of three parts: the legionary fort (castra legionis), the canabae legionis and the civil settlement (municipium) (Fig. 1).

The legionary fortress was built opposite the delta of the Vág river to control this strategically important area inhabited by the Quadi. An early earth and timber auxiliary fort was built in the 1st century AD, which was replaced by a stone construction during the reign of Trajan (98-117) or Hadrian (117-138) at the latest. This stone fortress was built for either the legio XI Claudia or the legio I Adiutrix with the contribution of the vexillations of three other legions: the legio XIII Gemina, the legio XIIIII Gemina, and the legio XV Apollinaris. The legio XI Claudia was garrisoned in Brigetio from 101 AD to 104 AD, being replaced by the legio XXX Ulpia Victrix from 105 AD to 114 AD. The legio I Adiutrix arrived at Brigetio around 118-119 AD and stayed until the end of the Roman rule in the area [1, 11, 16].

The rectangular-shaped castrum measured about 540x430 m according to the aerial photographs. Not much is known about its internal structure, for one part of the area now lies under the so-called MOLAJ housing estate (built in the 1940s), the other part is under cropland. As far as we can tell, the fortress was destroyed three times. First, in the Marcomannic Wars around 169-172 AD, but it was soon rebuilt during the reign of Marcus Aurelius (161-180). Construction took place also under the rule of Caracalla (198-217) and Elagabalus (218-222). Around 293-305 the fortress was destroyed by the second time. After that, at the beginning of the 4th century AD, it was reconstructed in a different shape and much lower quality. Under the rule of Valentinian I the fortress was repaired for the last time. (According to Ammianus Marcellinus, the Emperor died in the very fortress of Brigetio.) Not long after the death of Valentinian I, the fortress was again the victim of a major destruction, never to be rebuilt again [1, 11, 18].
From the earliest times the legionary fortress was surrounded by the canabae legionis from west and south. The area of the canabae is also a built-up area so there is little information about it. In the northeast part of the settlement there was an amphitheatre, which is still visible on aerial photographs. Near the Brigetio-Tata road lay the sanctuary district with the shrines of Iuppiter Dolichenus and Mithras among others. Other parts consisted of dwelling houses and workshops, such as potteries and brickyards. The excavated buildings can be dated from the early 2nd century AD to the beginning of the 4th century AD. From the second half of the 3rd century AD life in the canabae gradually ceased and the buildings were replaced by cemeteries [1, 11, 18].

Least is known about the municipium, the small civil settlement 2 km west from the legionary fortress. At present the area is the garden suburb of Komárom-Szőny and as such, is mostly built up, except for Vásártér (market square). The municipality also had an amphitheatrum [4] in the south-western corner of the town. The civil settlement came into being in the early 2nd century AD, but it only became a municipium around 205, then in 214 Brigetio was subordinated to the governor of Pannonia Inferior. After the destructions of the Marcomannic Wars the Severan dynasty brought prosperity to Brigetio (and to Pannonia) at the turn of the 2nd and 3rd centuries AD. Sometime later the municipium was given the rank of colonia [11].

2 History of research

Although Brigetio slowly perished after the Roman rule ceased in the area, it was never quite forgotten, for its ruins were still visible in the 19th century. 18th century travellers and engineers such as Marsigli (1726), Samuel Mikovinyi (1747) or Richard Pococke (1755) described the ruins they saw. The first scientific reports of Brigetio were given by Flóris Rómer, but the systematic archaeological research did not start until the late 1920s: the excavations of Stephan Paulovics. By that time however, most of the ruins had shrunk considerably because of the reuse of the stones as building material. The process of tearing down the Roman walls and reusing the stone material had already started in the late Roman times and continued over the centuries. But it only grew to huge dimensions from the second half of the 19th century, when the peasants were ordered to find the walls underground with sharp iron bars and dig out the stones [17].

Only a few of the 20th century Brigetio excavations took place on the territory of the municipium. In 1935 Aladár Radnóti found fragments of Roman frescoes and stuccoes around Vásártér that had been parts of the decoration of a roman house. In 1970 Endre Bíró led an excavation north of Vásártér connected to the building of a restaurant. He published the results in a short report, where he described a 2nd century dwelling house rebuilt in the 3rd century AD with adobe clay walls on a stone foundation decorated with wall paintings. According to his observations, the house was burnt down around the middle of the 3rd century, and rebuilt to a poor quality. In 1989 Julianna Cseh and Sándor Petényi made archaeological observations during a canalization in the northern part of Vásártér. They documented the structure of the Roman limes road and...
also a small part of a house with hypocaustum. Their observations, however, remained unpublished [17].

The research excavations of the municipality at Vásártér started in 1992 in answer to the request of Komárom Town and the mayor Gyula Krajczár. The archaeological investigations have been led ever since by László Borhy (Eötvös Loránd University Department of Classical and Roman Provincial Archaeology) and Emese Számadó (György Klapka Museum, Komárom) with the participation of the roman archaeology students of the Eötvös Loránd University (Fig. 2).

The goal of the first year’s excavation was to reveal the archaeological potential of the site. After the information collected from earlier excavations and field walks, the Roman remains seemed to appear more densely in the northern part of Vásártér. Therefore, in the northern part of the location, fifteen 4m x 4m sized test pits were marked out in a 4.5 m north-south orientated grid, and five 0.9 x 20 m trial trenches were drawn in the middle and southern part of Vásártér. The excavation of 1992 proved that the Roman remains at Vásártér were worth studying and that the northern part of Vásártér. The excavation of 1992 proved that the Roman remains at Vásártér were worth studying and that the northern part of the site was indeed the location that deserved more attention.

In 1993 a new 4.5 m square grid was laid out so as to facilitate planning each year’s excavations. The new grid was tied into the national geomatic database, and has been in use ever since. The archaeological investigation has been carried out in about ten new trenches (4m x 4m in size) each year, so more than 2000 m² had been excavated by 2011. To the research excavation two development-led excavations were added in the row of houses east of Vásártér: in 1999-2001 at number 2 Vásártér and in 2006 at number 13 Vásártér. These two excavations were also led by László Borhy and Emese Számadó.

The finds are being cleaned, catalogued and classified continuously during the academic year. The post-exavcation analysis of the artifacts is partly done by the archaeology students for their master’s or doctoral theses under the supervision of László Borhy. The information emerging from the vast amount of finds (coins, Samian ware, pottery, wall paintings, glass, bone objects etc.) concerning the function and periodisation of the remains is now sufficient to draw a sketch of the Roman houses found at Vásártér. It must be stated, however, that these results are preliminary and may change over time.

3 Architectural results

During the 20 years of archaeological investigation several objects came to light: parts of at least five Roman dwelling houses, workshops, a cellar, several wells and cisterns, and segments of two parallel roads. The objects were numbered in order of their discovery. The roads running from north to south are 40 m from each other, and they mark the east and west edges of an insula: Insula 1. The length of the insula is not known, for no east-west running road has yet come to light.

The ruins unearthed in 1992 were thought to belong to one Roman dwelling house, named Domus I. The remains of a hypocaust, fragments of stucco decorations and wall paintings that came to light in the first 2-3 years encouraged archaeologists to continue with the research excavation. The fresco emerging from Domus I became world famous after its restoration and can be seen in the exhibition of the György Klapka Museum in Komárom together with another famous fresco of Domus III.

As about 900 m² have been excavated of the area thought to be Domus I, we now have a better picture of the ruins, probably belonging to two houses: Domus I/a and Domus I/b. Both houses were presumably possessed by a man of fortune regarding the hypocaust heating and the luxurious interior decoration. Neither of the houses is fully known, as they stretch further to the north. It is also possible, that Domus I/a and I/b merged into one huge building in the last building phase. This question needs further investigation (Fig. 3).

The elongated house of Domus I/a was a 11.50 m wide and at least 30 m long house with several cubiculi, a few larger rooms and a corridor in the unearthed area. The main entrance of the house opened most likely from the north, from an east-west running road yet undiscovered. In the area explored, a corridor ran in a north-south direction. On the east side of the corridor, there was a small courtyard with the function of letting air and light into the building. On the other side, three cubiculi opened from the corridor each measuring about 3.80 x 4.20 m. Room I/1 and I/2 had a terrazzo floor with a hypocaust heating system. Both rooms had a barrel vault richly decorated with wall paintings datable to the very end of the 2nd century or beginning of the 3rd century AD. The fragments of the frescoes fell into the underfloor air chambers of the hypocaust system when the house collapsed, thus they were well preserved and ready to be put together again. In Room I/1 the painting showed a female figure riding a horse, which can be interpreted as Andromeda and Pegasus. The fresco of Room I/2 corresponded to the other one, featuring Perseus, the other main character of the myth (Figs. 4, 5). The wall paintings on the vaults represented Andromeda, Perseus, and Pegasus as constellations in the sky, completed with the personifications of the four seasons in the corners [5, 7]. South of the cubiculi three larger rooms were located with tamped earth floors. The southern-most room had an exit looking south to a gravelly yard measuring 10.50 x 12.60 m surrounded by a stone wall. South of the yard lay the garden.

The ground plan of Domus I/b is a bit problematic as it was unearthed in the first years of the excavation when the methods most suitable to this particular project were only evolving. It is certain however, that this house was as highly decorated as the other one. It had large rooms, almost halls in the investigated area, one of which, Room I/4 had a hypocaust heating system and rich wall paintings. This might have been some kind of a reception room. A similarly big hall was Room I/6, measuring about 6.0 x 9.5 m with painted walls and terrazzo floor, but no hypocaust heating [7]. According to its position in the ground plan, the surrounding rooms must have opened from here.
Fig. 2. Excavations at Vásártér (1992-2011)
On the west side of the house a long, narrow room might have served as a corridor. The main entrance of this house was presumably also from the north, and on its southern side it also ended in a yard. After the Samian ware found under and in the terrazzo floor of room I/4 the building of the house can be dated to the Severan dynasty, more precisely to the beginning of the 3rd century AD [3].

Between Domus I/a and I/b a narrow passage ran measuring about 70 cm in width.

From the west, Domus I/b was bordered by a north-south running road (Fig. 3). This road, named Road A, was 3.50 m wide on average, but it might have broadened to a square at some points. The road was covered with huge, odd-shaped stone slabs, with several compact layers of sand, gravel and earth as foundation, which was the typical Roman method of road construction. The surface of the road was renewed several times, even in the late Middle Ages, which indicates, that the road was still in use centuries after the end of the Roman rule in the area. According to the coins and Samian ware found in the layers of the road foundation, the street was constructed in one go in the early Severan dynasty, at the end of the 2nd century AD [14].

On the west side of Road A, parts of a completely different building came to light (Fig. 3, 6). Opening from Road A, this house, called Domus II, was a long, narrow building, measuring approximately 4 m in width. Beside the two bakery ovens (furnus), a fragment of a crustellum form helped to identify this workshop as a pistrinum, a bakery. The main room of the workshop, Room II/1, had an entrance from the east, from Road A (the imprint of the doorstep was still visible). One of the ovens completely filled the southern half of the 3.5 X 6.5 m large room which had a tamped earth floor [9]. Fresco fragments found on the stone slabs of the road testify, that the walls of the bakery were painted white with red stripes [12]. South of Room II/1, Room II/2 was open towards the street, but was presumably roofed. In the northwest corner there was another bakery oven.

The building had at least one other room to the north still unearthed. According to Samian ware finds, the bakery was built around the beginning of the 3rd century AD, and the ovens were renewed at least once [14].

Behind the bakery, courtyards of other workshops were found (Fig. 3). The vast amount of animal bones, mainly from cattle and the huge number of bone needles and hairpins suggest some form of animal meat, skin and/or bone processing. As the workshop itself has not yet been found, it cannot be decided, whether it was a butchery and/or a tannery or a workshop producing glue. As for the bone needles and hairpins, there could have been a workshop repairing bone items [2].
On the eastern side of Domus I/a, but still in Insula 1, lies another house, called Domus V (Fig. 3). Unlike Domus I/a and I/b, the elongated house of Domus V was not a luxurious house, but more like the dwelling part of a workshop. The rooms only had tamped earth floors, not terrazzo, and there was no sign of hypocaust heating. There were two wells in the house belonging to two different building phases, and in the southern part of the house, a cellar was found (Fig. 7). This 2.55 x 3.95 m large cellar was in use before the stone-founded walls of Domus V were built. The cellar had a window opening to the south, and the imprint of its wooden staircase was still visible in the plaster of the northern wall and in the terrazzo floor. As the Samian ware finds show, the cellar was filled in around the end of the Antoninian dynasty or beginning of the Severan dynasty [19].

On the eastern side of Domus V, Road B ran parallel with Road A. This street must have had a gravelly surface and was not covered with stone slabs, for wheel tracks were found in a layer of gravel.

Domus III and Domus IV were unearthed in two development-led excavations on the east side of Vásártér.

Domus III was discovered during the construction of a garage in the backyard of number 2 Vásártér (Fig. 8, 9). Only 21.46 m² had been investigated, but this small bit allowed archaeologists to have a look into a highly decorated Roman house. We have got information about three rooms of the house.

Room III/1 was a larger room, with a width of 5.5 m and an unknown length. The western wall of the room was covered with well-preserved wall paintings. The scenes presented by the frescoes were connected to hunting and dining, so the room might have served as a triclinium, a formal dining room, although it is now referred to as „peristylium”. According to the total height of the wall paintings, the ceiling height of the room must have been around 3.70 m. On the southern side, the „peristylium” opened to a corridor, on the western side, to another room [6, 10].

Domus IV was discovered during another construction at number 13 Vásártér, and 153 m² was investigated (Fig. 10). The backyard and the eastern section of an elongated house lying east-west were unearthed. In its last building phase, during the late Severan dynasty, this was another well-constructed
house with hypocaust heating, terrazzo floors and figurative wall-paintings. Before that, however, at the very end of the 2nd century AD, the backyard gave place to a glass-making workshop with two furnaces and a well [13, 15].

4 Periodisation

In the municipium of Brigetio, Roman life was continuous from the second half of the 1st century AD to around the middle of the 3rd century AD. During these two centuries, the area excavated at Vásártér had several different construction phases. Traces of timber structures and timber reinforced clay walls found at several spots of Vásártér belonged to the first buildings in the civil settlement. These were replaced by adobe clay houses with stone foundations after the Marcomannic Wars at the end of the 2nd century AD. The prosperity brought to Pannonia by the Severan dynasty also made Brigetio flourish. During the reign of Septimius Severus (193-211) and Caracalla (198-217), the streets of the town were built in the form we know them, the buildings were renewed and richly decorated with wall paintings. In the first half of the 3rd century AD, even an amphitheatre was built in the municipium.

For some reason, however, the prosperity did not last for long. Around the middle of the 3rd century AD, the houses were abandoned and life ceased in the municipium. The buildings were carefully cleared out by their inhabitants and slowly collapsed over time. This phenomenon was probably caused by some kind of a military threat [11].

5 Conclusions

The 1992-2011 research excavations at Vásártér in the heart of the municipium of Roman Brigetio brought to light the remains of several 2nd-3rd century dwelling houses. These elongated buildings ran in a north-south direction, parallel to the two streets found among the ruins. Some of these houses were richly decorated with wall paintings and stuccos, had hypocaust heating systems and were floored with terrazzo. Others were more like a dwelling house combined with a workshop, such as a bakery or a glass-making workshop.

The excavations have not yet proved the local belief according to which the forum of the Roman civil town lay under Vásártér [8]. The finds and results however are still very important from both a topographical and art historical point of view.

The investigated area is recovered at the end of each year but the restored frescoes and important finds can be seen in the exhibition of the György Klapka Museum in Komárom. It would be reasonable to open an archaeological park at the site.

Fig. 8. Fresco in Domus III (Photo by E. Számadó [6])

Fig. 9. Domus III (After E. Számadó [6])

Fig. 10. Domus IV, third building phase
(After Á. Gelencsér and K. Dévai [15])