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FORM AND FUNCTION: URBAN PRIVATE TOWERS IN CENTRAL EUROPE

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The cityscapes of medieval Europe were divided by a multitude of towers. However, in addition to ecclesiastical, communal, or military buildings, another similarly complex group of towers can be outlined: the ones erected by various burghers within their plots. These towers still have a special place in the skyline and topographical system of several German cities like Regensburg or its Italian counterparts, including Bologna, Lucca, and Siena. In Central Europe, however, they represent a much more fractured and forgotten source, even though they were once built in good numbers in the cities of the region. Although research quickly recognized their importance, and a series of studies were recently published discussing them, a comprehensive analysis has not yet been carried out. Based on these premises, I examined the urban private towers of the Central European region along with their remaining architectural features and possible functional interpretation.

Keywords: urban private towers, Middle Ages, urban architecture, Central Europe

This article is based on my surveys of relics from Sopron (Szoboszlay 2018), a town that contains a significant proportion of the towers in this analysis. The data collected there was compared with secondary sources and publications on tower architecture in other towns in the study area. In this paper, I will discuss the towers of five historical regions: the medieval kingdoms of Hungary and Bohemia and the duchies of Lower Austria, Silesia, and Lesser Poland. This well-defined region is suitable for a comparative analysis for multiple reasons. The connections and bilateral communication between the towns, their economic contacts, and several historical events, like the Mongol Invasion or the expansive politics of Otokar II, created a framework resulting in a similar development even on the level of private towers. One can also find private towers in Dalmatia – for example, in Spalato (Split) and Trau (Trogir; Jakus 2014) –, the structure of which (a result of their close connections to Italian civic architecture) separates them from the group mentioned above. Altogether 97 private towers are known in the outlined Central European region, but only 37 have any persisting structural remains to present in this article and the appendix (*Fig. 1, Table 1*).

TERMINOLOGY

The terminological context of the analysed towers is ambiguous. They were often described as *donjons* or residential towers. At the same time, the structural differences, variations in the use of space, and topographical positions of these buildings suggest a more nuanced picture. In several cases, only the foundation walls persisted, rendering an exact definition even more difficult to create. A terminology based on contemporary sources would be useful here; however, the medieval names of these urban towers are too generic to be used in classifying tower structures. The variations of *turris* appear in the highest number, along with a few mentions as *acres* or *curtis* in German territories. In Győr, a document mentions a tower belonging to Bernát, son of Imre from Gycz in 1499 as a house that was built like a *turris*, which may be a reference to a private tower (DL-DF 46508. Chapter at Vasvár 1499.11.16), while in Bratislava, *turris* often refers to staircase towers (Entz 1986, 47; Wiedenau 1984, 80; Piekalski 2014, 131; Trabag 2003, 322–325).

The term favoured by most researchers for these towers is "residential tower". The German "*Wohnturm*", the Hungarian "*lakótorony"* or the Cech "*obytná věž*" are more or less similar, representing various equivalents of the term "residential tower". Some version of the term *donjon* also appears in the territory of today's Czech Republic, while "*wieża rycerska*" in Poland means "knight's tower". The term "residen-

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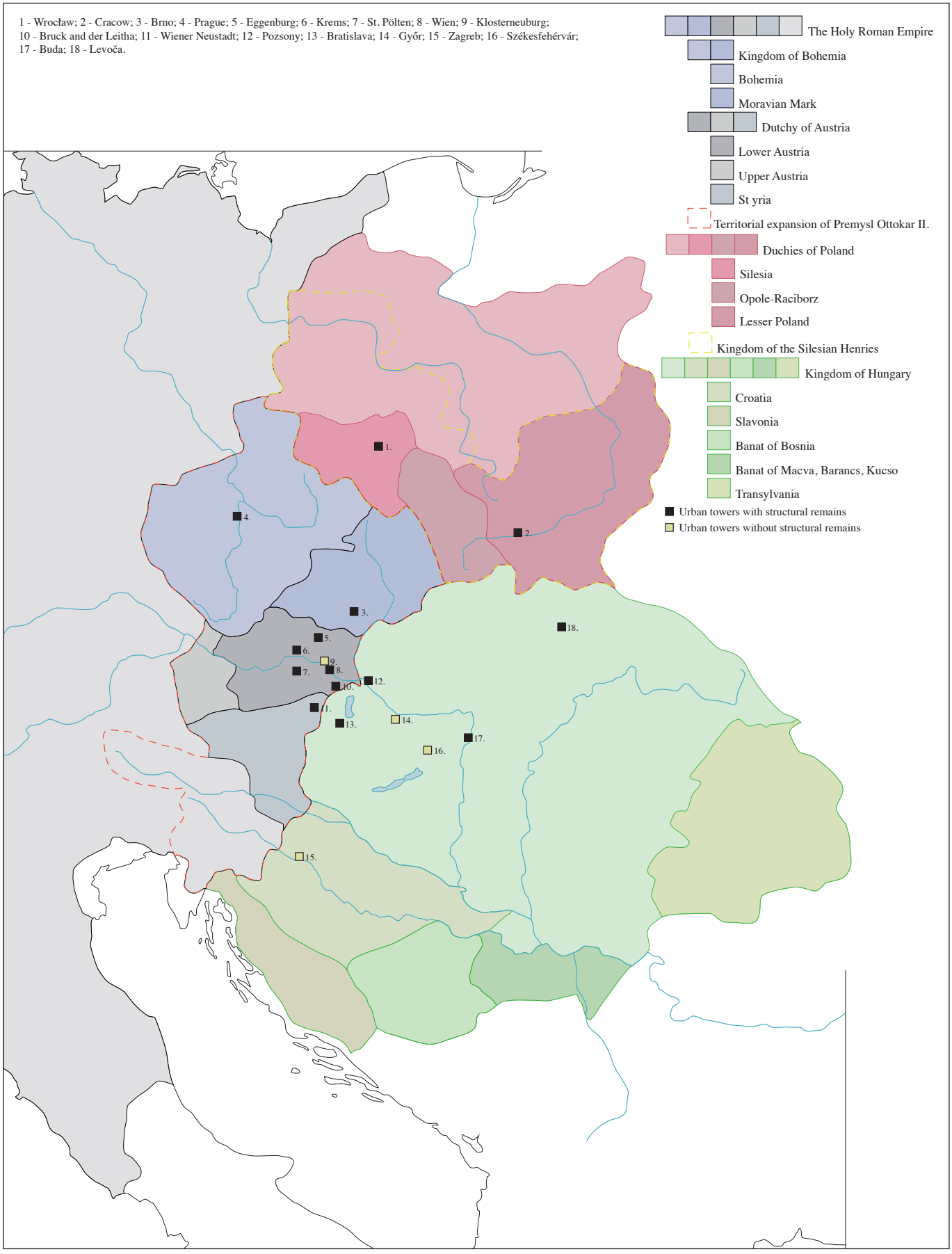

Fig. 1. Map of the discussed urban private towers in the Central European region during the 13th and 14th centuries (compiled by Gergely Szoboszlay on base map by Matthew *1989)*

tial tower" is a specific and complex notion, uniting several functions. As their name suggests, the towers should provide their owners with well-equipped residential spaces, complemented by economic and storage functions, as a sort of well-guarded safe deposit box. The second factor indicates the third – defensive – role: to protect the owner and his values. Given this complexity and considering the fragmentation of related sources, I avoid using the term "residential tower" unless it is possible to attach all four functions to the buildings and refer to these structures as "urban private towers". The term "private tower" does not determine the exact function of the building while referring to its ownership and legal status.

GENERAL CHARACTERISTICS

Although there are some differences, the towers of the region were basically built on the same principles, manifested by the types and placement of the openings or the vaulting of the ground spaces. Contrary to some early examples in Germany or Italy, the predominant building material was rubble stone, while ashlars were only used in accentuated parts such as the external corners of the buildings. Bricks were primarily used as an auxiliary building material, especially around openings or, in Polish areas, complemented by ashlars at crucial points (Fehring 1987, 64–65). The existence of medieval towers built from timber is not entirely unlikely, but there are no preserved remains of such a structure in the study area. On the other hand, wood was most certainly used for horizontal ceilings and roof structures, as in the case of the tower under 4 Új Street in Sopron.

Most towers were built with a rectangular floor plan on a relatively small plot. The external walls of the buildings varied between 4.2 and 11.5 m, while the usable inner space between 14 and 82 m^2, around 25 m^2 on average. These private towers were generally smaller, but their internal dimensions were comparable with the interior plan of most castle towers. That is an important hint on the functional vertical division of

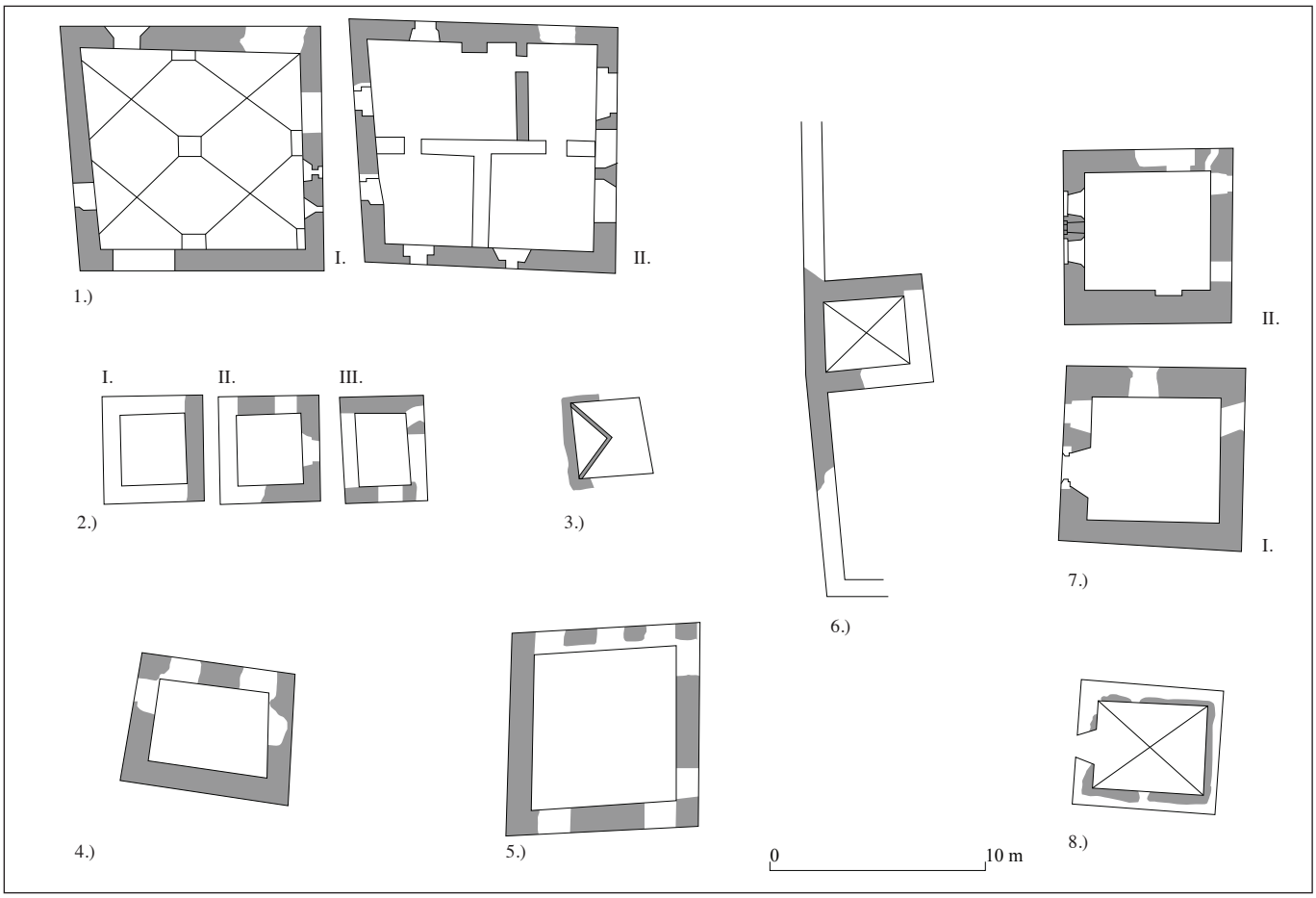

Fig. 2. Ground plans of various private towers. 1: Sopron, 14 Szent György Street, 2: Sopron, 11 Kolostor Street, 3: Sopron, 7 Kolostor Street, 4: Buda, 37 Új Street, 5: Krems, Herzoghof, 6: Sopron, 13 Kolostor Street, 7: Sopron, 4 Új Street; Prague, Old Town Square 478 (drawing by Gergely Szoboszlay)

space in urban towers. A major difference between urban and castle towers lies in average wall thickness, which can be surprisingly lesser in an urban context – even as thin as 75 cm, corresponding with most burgher buildings (*Fig. 2*). The most problematic point in interpreting tower relics is their height. In most cases, only the ground floor and sometimes the remains of the first floor persisted. However tempting may be to rely on wall thickness when estimating height, in most cases, it does not indicate the number of floors. For example, the urban tower with the narrowest wall in this article is the one under 11 Kolostor Street in Sopron, with a 75-cm-thick wall, which also happens to have the highest number of still-standing floors (three in total) amongst the towers of the city. The dimensions of the towers in Central Europe fall far behind the 60-metre-tall towers of Regensburg or the 90-metre-tall ones in Bologna. The tallest structures in the region are the towers at Lugeck 7 and Griechengasse 2 in Wien, with seven and four levels, respectively. The towers of the Bratislava Old Town Hall, the four-level-high Náměstí Svobody 18, the Herzoghof in Krems, and the tower under 37 Úri Street in Buda could have been of similar height. In Levoča and Sopron, towers seem more modest, usually comprising only two levels.

In fortunate cases, structural remains and inner spaces also persisted and could be used to identify a level's function. Factors such as the accessibility of the levels, the direction of the openings, the type of wall covering, lighting of the various spaces, heating systems, and additional architectural elements such as vaults or outer staircases could help clarify the functional distribution of inner spaces.

STRUCTURAL CLASSIFICATION

Although urban private towers share basic structural principles, it is still important to pinpoint the differences and classify the relics based on them. It is possible the towers into three well-distinguished groups based on various architectural and topographical features.

The private towers of the first group emerged in the mid-thirteen-century. Their design is modest and relatively small, with thin walls and mostly undivided interiors. A significant part of the towers of Sopron – all but one – can be classified here, as well as the towers of Krakow, Bratislava, Eggenburg, Levoča, the private tower on the corner of the Greichengasse in Vienna, the two towers standing on the main square in Bruck an der Leitha, and the one on the Old Town Square in Prague. Most of these towers were built inside the plots, often surrounded by a wall or a taller fence, probably standing amongst auxiliary buildings.

The buildings of the second unit only appeared at least half a century later, at the turn of the 13th and 14th centuries. Most of these towers have been built with a considerably more extended floor plan compared to the early ones. Although the division of space is still similar, the upstairs areas were already fitted with interior dividing walls in a few cases. Also, they were increasingly more often built on the street front of the plots and with less closed external walls. The tower under 14 György Street in Sopron, although still

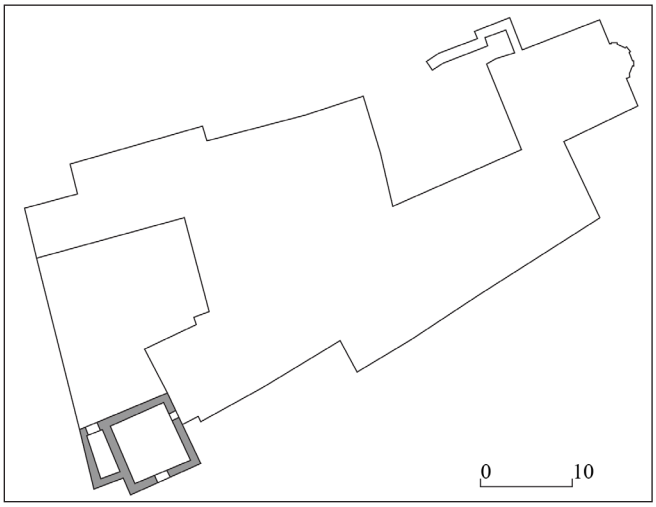

Fig. 3. Ground plan of the tower of the Gozzoburg at Krems (drawing by Gergely Szoboszlay based on Mitchell 2015)

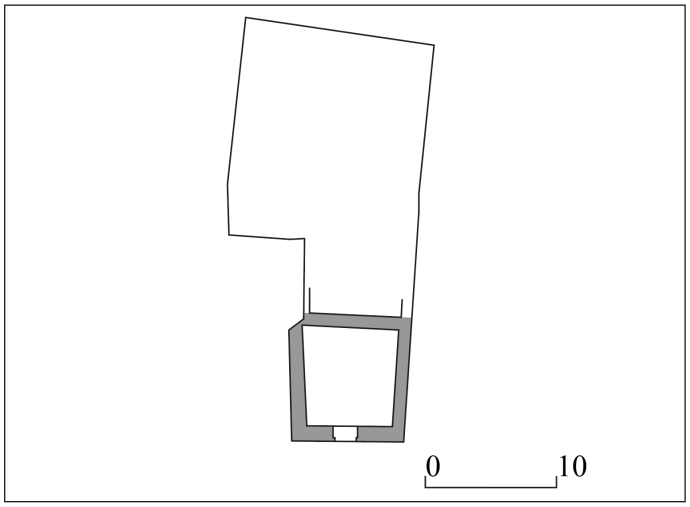

Fig. 4. Ground plan of the tower of the Stone Bell House (drawing by Gergely Szoboszlay based on Libal & Muk 2015)

built remotely within the plot, belongs to this group based on its structural attributes, just like the towers of the Bäckerstrasse in Vienna, those surrounding the Havelská in Prague, and the private towers in Brno.

The last group does not form a homogeneous chronological unit, but their topographic position, setting, and structural features separate them from the towers of the first two groups. All these towers were built as part of large urban palaces like the Gozzoburg in Krems and the Stone Bell House in Prague. Though these towers were directly linked with relatively big urban palaces, their design reflects the same principles of spatial organisation as those of solitary towers (*Figs. 3–4*).

GROUND FLOORS AND STORAGE FUNCTION

A keystone of the basic set of criteria of private towers is that their ground floor – featuring a closed structure and fireproof vaulted ceilings – was used for storage or economic functions. Although the architectural features observed at almost every urban tower in the region support this hypothesis, the high degree of fragmentation of the related record, thus unsuitable for drawing general conclusions, limits its relevance.

The overall lack of substantial illumination is a key feature of these closed spaces. Most windows (if any) on this level are only narrow slots. In Brno and Kraków, only small embrasure-like windows were placed on the ground floor, and none of these openings were large enough to illuminate a living area. In the tower at Ulica Bracka 5 in Kraków small wall niches were created for candles to alleviate the darkness. The design of the openings on the towers under 14 Szent György Street in Sopron and Bäckerstrasse 14 in Wien is akin to the windows and gates of the local press houses. Furthermore, the ground floors in the towers in Buda, Bruck an der Leitha, and Prague were completely windowless.

With a few exceptions, separate access to the ground floor in these towers further increased their isolation, closing off the higher levels. At Ulica Bracka 5 in Kraków, a semi-circular, late Romanesque-style

Fig. 5. Remains of the ground floor vaulting in the tower under 7 Kolostor Street in Sopron. (photo by Gergely Szoboszlay)

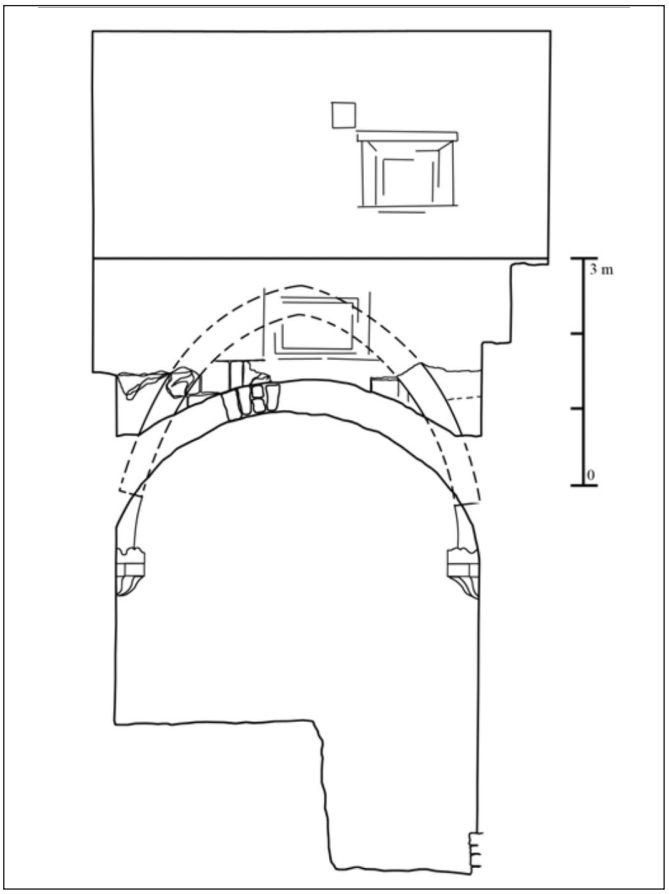

Fig. 6. Cross-section of the remains under 13 Kolostor Street in Sopron (drawing by Gergely Szoboszlay based on a survey by Ferenc Dávid)

door led to the semi-sunken ground floor through a couple of steps inside. The same solution was applied to the tower of the Bratislava City Hall, two towers in Sopron (under 4 Új Street and 14 Szent György Street), and the structure at Bäckerstrasse 14 in Wien. When the relics do not comprise remains of a door related to ground-floor access, the existence of such may be assumed from the ceiling vault. The towers under 7 and 13 Kolostor Street in Sopron (*Figs. 5–6*), the tower at Bruck an der Leitha, the one on the Old Town Square in Prague, and the structure at Náměstí Svobody 18 in Brhad all had intact cross vaults.

As can be seen, the stone vaulting of the ground level is amongst the most easily observed architectural elements. In most cases, the vaults were simple cross vaults supported by stone corbels, like in Bruck an der Leitha or Sopron, 13 Kolostor Street. In contrast, the tower at Ulicka Bracka 5 in Krakow featured a barrel vault, just like Bäckerstrasse 2 in Wien, where every floor was sealed from the others by barrel-vaulted ceilings. Besides, a cross vault covered the ground levels of the towers at Náměstí Svobody 18 in Brno, the Bratislava City Hall, or under Rabensteig 3 in Wien.

In summary, based on the presence of an isolated space, narrow openings, and impenetrable vaults, the structures described above almost certainly had some sort of storage function. But the details of the ground floor design of several towers in Eggenburg or Sankt Pölten are missing, and the ones in Levoča and Buda are way too fragmented. The ground level of the Gozzoburg in Krems was clearly designed for a subordinate role (it was used as a kitchen), while the Stone Bell House in Prague had its own hallway to the street. In some cases, the lower levels lost their original function; for example, the originally closed ground floors of the towers of later town halls in Brno and Bratislava were broken through and transformed into a gateway (Brno) and a porter's lodge overlooking the gate (Bratislava).

RESIDENTIAL SPACES

Habitability is a key question in the research of urban private towers. It may seem obvious that the higher floors could be used for residential purposes, but this statement becomes more nuanced in light of the related architectural elements. Meeting certain requirements, such as adequate lighting, water supply, sufficient interior space, latrines, and heating facilities, is essential for residential use.

An important feature of private urban towers is the functional and, therefore, architectural separation of the ground floor and the higher levels by installing an external door to the upper floors, accessible by a staircase or ladder from outside. There are many examples of this type of entrance in Europe, in the Frankenturm in Trier, for instance, where each floor could be reached separately by external wooden stairs. Furthermore, upper-floor entrances were created in several urban towers in Trier (Frankenturm, Dreikönigenhaus, Gensängnturm, and Wolfsturm; Knöchel 2002, 89) or the Darberger Hof in Mainz (Piekalski 2006–2007, 174). Although these stairs and ladders have not survived in the region under study, doorways on the upper floors may indicate their former presence. The imprints of the joinery work of staircases were only preserved in the wall of some towers in Prague, for example, at Karlova 146/I. Three elevated doors were found in Sopron, similar to the tower at Hauptplatz 4 in Bruck an der Leitha or those of the Old Town Hall in Bratislava and at Bäckerstrasse 14 in Wien. The Gozzoburg in Krems had its own entrance through a separate staircase and a balcony. All observed upper floors were covered with a wooden ceiling, except for one at Bäckerstrasse 2. The internal access to additional levels – necessary in the case of free-standing buildings – was easier to realise through wooden ceilings.

In summary, interior spaces of a size of 24 m^2, on average, were suitable for living. It is important to note that while these upper levels in their present form are mostly undivided, we have evidence of internal division in some younger examples. This tendency was also common in other regions of Europe, as manifested by the interior walls of the Rehböckl tower in Zürich, built after the 1310s Piekalski 2006–2007, 174). In the Central Europen region, only towers built after the beginning of the 14th century – the ones under 14 Szent György Street in Sopron or Dominikánské náměstí 2 in Brno and the Stone Bell House in Prague – had internal dividing walls.

Latrines may also indicate a residential function, but the related relics in urban towers are surprisingly few. Only a fragmented doorframe may suggest a latrine in one of the towers in Sopron, under 14 Szent

Fig. 7. The tower of the Old Town Hall in Bratislava with gothic window frames (photo by Gergely Szoboszlay)

Fig. 8. Western façade of the Stone Bell House in Prague (photo by Gergely Szoboszlay)

György Street. Considering this, the privy may have been located outside, around the towers.

In comparison with the features above, the largest amount of persisting data is related to the windows on the upper floors, their design continuously changing to be more and more large and open after the first appearance of such openings on towers in the 13th century. The early towers in Sopron were only equipped with small slots, while younger structures in Prague or Wien had large gothic frames and windows. Pointed tracery windows are known from Bratislava (*Fig. 7*), 14 Szent György Street in Sopron, the Stone Bell House *Fig. 8*), and an engraving from 1588 depicting the townscape of Krems and the tower of the Herzoghof. The tower in Sopron had large window niches with benches, akin to the Gozzoburg, the windows of which looked down to the "lower town," while the other side was only fitted with small, narrow openings facing the inner courtyard and overlooking the gate tower. These windows are the only architectural elements to communicate the function and position of the internal private spaces to the outside world. For example, windows with benches indicate that the room was used for extended periods on a daily basis.

Connected windows were another type of complex wall opening; the remains of such windows only persisted in Prague and Sopron. They consisted of rows of small windows in elongated frames sunken into the façade of the building and could illuminate the room with minimal heat loss. Such windows, complemented by heating systems and a wooden cladding of the interior, contributed considerably to the habitability of the room. For example, in the tower under 4 Új Street in Sopron, only a diamond-shaped tracery fragment and parts of the frame have persisted, together with some imprints

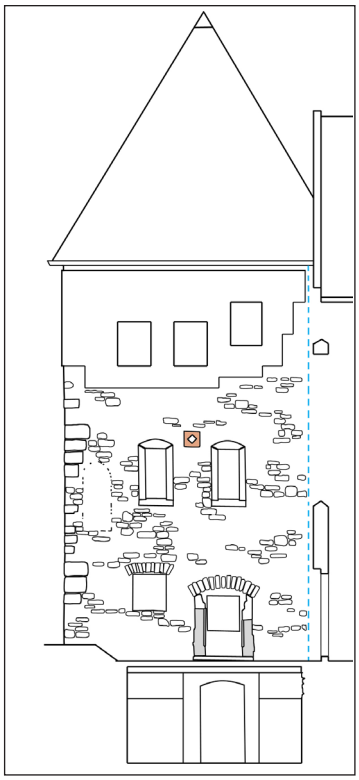

Fig. 9. Western façade of the tower under 4 Új Street in Sopron with its openings (drawing by Gergely Szoboszlay based on a survey by Ilona Schőnerné née Pusztai)

of the wall and floor cladding, while the supposed stove perished (*Figs. 2.7, 9*). The wood-clad room in the Stone Bell House was on the second floor of the tower; both the remains of the wooden barrel vault of the ceiling and the wall cladding, the foundations of a separate tiled stove, and a small opening in front of it for heat circulation were documented there.

When there are no traces of such complex heating and lighting solutions, one may still rely on the remains of heating infrastructure in determining a residential function. Remains of fireplaces are known from the first floor of the tower under Hviezdoslavova ulica 22 in Levoca and the second of one in Bratislava. In Sopron, heating infrastructure could only be identified in one case (remains of a furnace that could have also been used for industrial purposes, found on the first level of the tower under 13 Kolostor Street), while in the Gozzoburg in Krems, the heat was channelled to the residential part from the kitchen below.

Jointly, the architectural elements described above indicate that towers fulfilled a residential role; it is important to keep in mind, however, that the related evidence is relatively few and scattered. Even the early towers did not stand alone in the centre of their plots; thus, it is impossible to narrow down all possible functions to a single building – especially as written sources testify the opposite. A text from 1352 mentions a stone house *(domus*) beside a tower in Buda (Végh 2008, 288), akin to Sopron, where a house stood next to the tower of Péter Agendorfer (Mollay 1961, 119). According to a charter from Zagreb, the plot around one of the towers of the city also included a cellar, a stable, and a herb garden (Entz 1986, 47). The Gozzoburg and the Stone Bell House towers were erected as part of urban palaces, although their relics indicate that both comprised residential spaces. We also know chapels in Prague and Krems that may have been suitable for residing. On the contrary, the first floor of the tower under 13 Kolostor Street in Sopron suggests a more nuanced picture: while all architectural elements linked with habitability above are present in the building, the small window slots, the only 160-cm-high doorframe, and the industrial-like stove question the comfort level of the building.

DEFENSIVE FUNCTION

In the case of some towers (for example, in Prague, Sopron, and Krakow), the possibility of a defensive function arises. Usually built at key locations of the city in terms of social representation and far from strategically important defensive structures make private towers, in general, have a defensive function unlikely, as the topographical arrangement expressed the power of the owners rather than contributing to the defence of the settlement. Moreover, several towers were built in the centre of their plots, rendering them unusable in collective defence.

The architectural element most frequently discussed in context with defensibility is the first-floor entrance. These openings not only separated the different functional spaces of towers but could also serve as a temporary defensive installation (with the wooden stairs attached to them dismantled to block access). This kind of upper-level isolation was complemented by the fireproof stone vaulting of the ground floor, contributing to fire prevention, both protecting the building and sealing the upper levels.

Fig. 10. The tower of Griechengasse 14 in Wien the symbolic plaster masonry (photo by Gergely Szoboszlay)

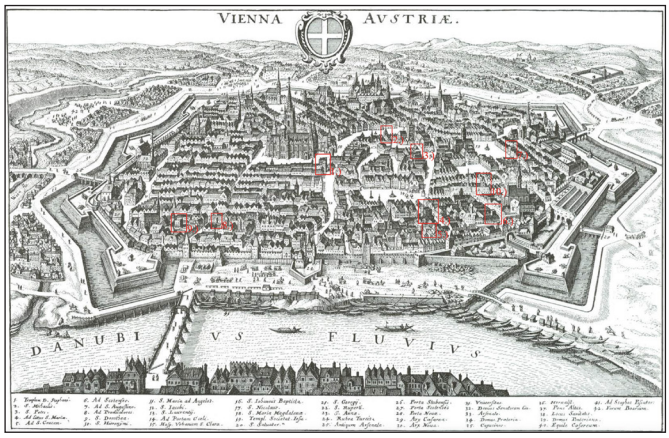

Fig. 11. Possibly identifiable private towers and their topographic distribution on a birds-eye view of Wien by Houfnagel from 1609 (Jacob Hoefnagel – Claes Jansz Visscher (1640), VIENNA AVSTRIAE Wienn In Oesterreich, Plate 3. Historisches Museum der Stadt Wien, Inv. Nr. 31043)

Moreover, most towers having relatively thin walls is another argument against their general defensive role. Although the ashlar masonry of the corners on all but one tower in Sopron and also in Buda, Bratislava, and Krakow (*Fig. 10*) may communicate (and reflect) a certain defensive role and actually contributed to the reinforcing of these buildings, in an urban context and combined with the thin walls, they more likely promoted the symbolic power of the building.

The roofs or platforms on the top of the towers were possibly supplied with additional defensive architectural features, but the body of available information related to these in the region is extremely small. This uncertainty is perfectly displayed by the four reconstruction attempts yielding four different roof versions (two with battlements, one with a *chemin de rondes*, and one with a gable roof) in the case of the tower at Ulicka Bracka 5 in Kraków (Komorowski & Opaliński 2011). The roofs of most towers are only known from depictions. Based on these early modern town views, battlements protected the roof of some towers in Brno and Vienna; however, the reliability of these sources is debated (*Fig. 11–12*). Related information sometimes appears in written sources: for example, according to a description in its account book, the tower under 11 Kolostor Street in Sopron (as part of the town hall) was covered with a gable roof (Mollay 1977, 238). The only known archaeological evidence for a battlement comes from Bratislava, where such a structure covered the outer walls engirding the tower but not the tower itself

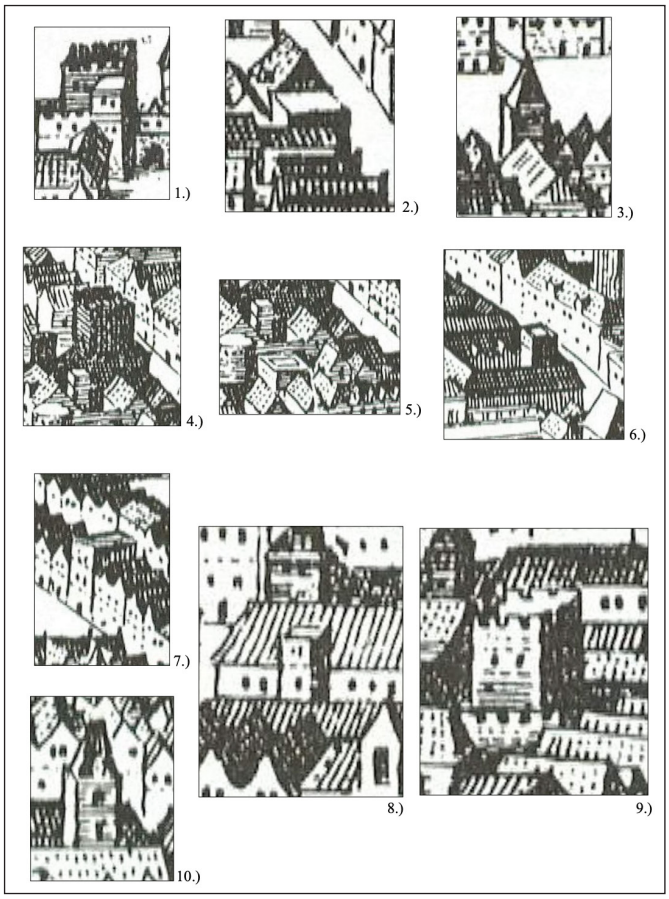

Fig. 12. Depictions of possible private towers in Wien from the birds-eye view by Houfnagel. 1: Stephansplatz 7, 2: Graben 29, 3: Petersplatz 12, 4: Marc-Aurel-Strasse 2, 9: Griechengasse 7, 10: Salvatergasse 7. (Detail – Jacob Hoefnagel, Claes Jansz Visscher (1640), VIENNA AVSTRIAE Wien In Oesterreich, Plate 3. Historisches Museum der Stadt Wien, Inv. Nr. 31043)

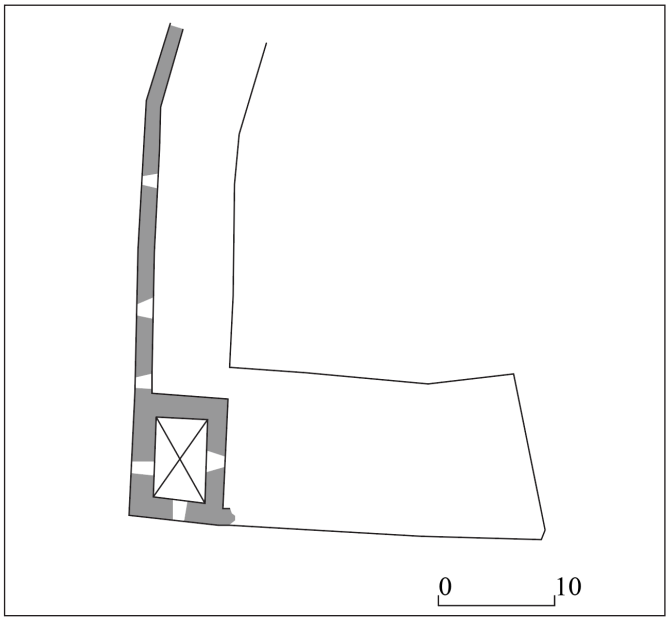

Fig. 13. The ground plan of the Old Town Hall of Bratislava with the private tower and the adjoining enclosure wall (drawing by Gergely Szoboszlay based on Holcik 2011)

(*Fig. 13*). Direct evidence in other European is significantly more abundant. For example, some urban private towers in Bavaria were fitted with other types of defensive architectural elements, and battlements closed the platforms built on the top of, for example, the Goliath Turm and the Kastemeyerhaus in Regensburg or the towers of the Hauptplatz in Nürnberg (Stroble 1963, 364; Wiedenau 1963, 189).

Finally, there is one more defensive element observed in context with some towers: surrounding walls around the early ones. These walls probably added to the defensive capabilities of the buildings, making them somewhat more in this respect than a safe box. Five towers were enclosed by walls in Sopron, similar to the towers of Bratislava and Levoca.

In an urban context, the absence of certain defensive elements suggests that the defensive function was likely secondary and that military strength was communicated mainly to accentuate the owner's status. This difference becomes striking when comparing urban private towers in the study area with those in other regions. In Zürich and Basel, multiple small towers were built with thick walls, embrasures, battlements, surrounding walls, drawbridges, external guard towers, gatehouses, and even moats, making them look like proper urban castles. These details, however, became simplified with time. The best example is the battlements of the Goliath Turm (Piekalski 2006–2007, 179), twenty metres above street level (thus, perfectly useless in an urban context), on a densely built-in street. The contradiction is striking in Trier, too, where the Frankenturm and Jerusalemturm were built with massive ashlar masonry, thick walls, and elevated doors but featured large twin windows on every floor on their façades (Stroble 1963, 364).

As a unique architectural group, the private urban towers of Central Europe have been an integral part of the region's urbanization since the 13th century. Although frequent in an urban context, the related record is extremely fragmentary: of the 97 identified urban private towers, some relics of only 37 persisted. As in Sopron or Krakow, the towers were often built as the first structurally recognisable civic stone buildings of the given settlement. However, due to slower urbanisation in the eastern parts of the study area, most urban private towers appeared there 150–200 years later compared to some German or Swiss examples.

The analysis of the architectural elements related to defensive function indicates that the towers were not suitable for playing a significant role in the defence of towns. If they played a defensive role at all, it was most certainly limited to protecting the owners and their values. Furthermore, while the towers could serve as temporary refuges for the owner in the event of city riots, fire, robbery, or attack, the appearing defensive features primarily strengthened the symbolic message of the buildings, while this symbolism further emphasized the economic and residential functions.[2]

Table 1. Basic data of private urban towers in the focus of the current analysis

Prague	
Old Town Square 478	The ground level with the remains of the first floor is 5 m tall. The levels are accessible via separate stairs. Ground floor 5 x 5 m. Built in the centre of the plot. (Piekalski 2014, 73; Libal & Muk 1996)
Havelska 407	At least three levels. Built in the centre of the plot in the 13th century. (Musilek 2012, 68)
Stone Bell House	Three levels supplemented with a basement. 10x10 m ground floor with 2m thick walls. On the ground floor a chapel and an entrance hall. A private oratory on the first, and a connected window with a vaulted *Blockwerkkammer* on the second floor. The levels are accessible via a spiral staircase. An urban palace attached to it from the east. Built around 1310 on the street front of the Old Town Square (Benesovská 2009)

[2] A detailed analysis of the emergence and topographic context of private urban towers exceeds the frames of this paper; for a detailed discussion of the topic, see Piekalski 2014; Szoboszlay 2021.

Brno	
Náměstí Svobody 18	Four floors. Ground floor is closed by vaulting. Built in the late 13th century in the corner of the plot. The top of the tower is supplemented with a battlement (Merta 2007, 207)
Dominikánské náměstí 2	At least two levels with 1.4 m thick walls on a 4x7.8 m ground floor. Upper levels were divided. Built on the street front around 1278 (Merta 2007, 208)
Radnická 8 – Old Town Hall	Originally two floors, later expanded with further two. 1.4 m thick walls on a 14x14 m ground floor. The first floor was accessible via a balcony. The ground floor was destroyed when transformed into town hall. Separate chapel. Built at the turn of the 13th and 14th centuries, town hall since 1375. (Merta 2007, 210)
Corner of Jakubské nám. 2 / Rašínova 4	Built with a rectangular ground plan and 1.7 m thick walls in the corner of the plot. Full size unknown. (Merta 2007, 208)
Wroclaw	
Rynek 33	Brick tower on the façade of the plot, superstructure only known from depictions (Piekalski 2014, 122)
Corner of Wita Stwosza / ulica Sw Wita	Built with a rectangular ground plan and 1 m thick walls. Full size unknown. (Piekalski 2014, 122)
Krakow	
Ulicka Bracka 3–5	At least two levels with 1.2 m thick walls on a 9x9 ground plan. Ground floor is covered with barrel vault while accessible through a separate arched door with two slots (windows). Wooden stair to the upper level. Built in the 13th century. (Komorowski & Opalinski 2011; Piekalski 2014, 122)
Corner of Rynek 23 / Ulica Sweska 2	Two levels persisted, of 5 m height in total. 1.6 m wall thickness, on a 9x9 m ground plan. Built in the 13th century, in the centre of the plot. (Komorowski & Łukacz, 1985)
Rynek Glówny 35	At least two levels with 1.1 m thick walls on a 9x9 m ground plan. Built in the 13th century in the centre of the plot (Piekalski 2014, 122)
Rynek Glówny 36	Built in the 13th century in the centre of the plot. Only the 9x9 m sized ground plan remaind. (Piekalski, 2014, 122.)
Rynek Glówny 46	Built in the 13th century in the centre of the plot with 1.8 m thick walls on a 9x10 ground plan (Piekalski 2014, 122)
Buda	
37 Úri Street	Three levels with a 7x10 m ground plan. Ashlar facing masonry on the corners and small slot windows. Built in the 13th century in the corner of the plot (Lócsy 1959, 342–349)
Bratislava	
Old Town Hall	12 m high with three floors and 1 m thick walls, of a 8x8 m ground plan. Ground floor closed with a stone vault, separate first floor entrance. On the higher levels fireplace, tracery window frames and an adjoining chapel. Built in the 13th century in the corner of the plot. (Holcik 2011, 229–242; Entz 1986, 47; Melicharčík 1988)
Levoca	
Hviezdoslavova ulica 22	Two levels persisted, 6x7 m ground plan and a fireplace on the first floor. Built within the plot, along the long side (Kresánek 1985)

Sopron	
7 Kolostor Street	Only the ground floor persisted; on 4.3x4.3 m ground plan. Separate entrance and cross vaulting. Built in the 13th century within the plot, along the long side (Dávid 1970; Sedlmayr 1986; Szoboszlay 2018)
11 Kolostor Street	Three levels with 0.75 m thick walls on a 5x5 m ground plan. Separate entrance to the second floor and ashlar masonry on the corners. Built in the 13th century in the centre of the plot (Dávid & Nemes 2020)
13 Kolostor Street	Two levels persisted; 90 cm thick walls on a 6x6 m ground plan. The ground level was covered with a cross vault. On the first floor separate door with small windows and a stove. Built in the 13th century within the plot, along the long side. Adjoining enclosure wall (Sedlmayr 1986; Szoboszlay 2018)
4 Új Street	Three levels persisted, with 1.2 m thick walls on 8x8 m ground plan. Separate entrance to the ground level and the first floor. Ashlar masonry on the corners. On the upper level remains of a linked window and wooden cladding. Built in the 13th century, within the plot, along the long side. Adjoining enclosure wall (Dávid 1970; Sedlmayr 1986; Szoboszlay 2018)
18 Új Street	Built in the 13th century within the plot along the long side on a 6x5.7 m ground plan. Adjoining enclosure wall (Sedlmayr 1986)
Corner of 9 Új Street / 14 Szt. György Street	Three levels persisted, with 0.5 m thick walls on 10x11 m ground plan. Ground floor with horizontal ceiling, separate door, and press-house-like window slots. Upper level with large windows with benched niches, separate entrance, and ashlar masonry on the external corners. Built in the 14th century within the plot, along the long side. Adjoining enclosure wall. (Szoboszlay 2018)
Wien	
Bäckerstraße 2	Currently four levels, each of them closed with a barrel vault. The tower was closed with gable roof, according to sources. Built at the turn of the 13th–14th centuries, within the plot (Perger 1967–1968; Dehio-Handbuch 2003)
Bäckerstraße 7	Currently two levels. Built in 1368 in the centre of the plot as part of Jakob von Tirna's palace (Perger 1967–1968; Mitchell 2006, 24)
Bäckerstraße 14	Currently two levels. Separate entrance to each floor. On the ground level press-house like openings. Built in the 13th century in the centre of the plot. (Perger 1967–1968; Piekalski 2007, 190; Mitchell 2006, 24)
Rabensteig 3	Currently four levels on a 6x5 m ground plan, with 90 cm wall thickness. Ground floor closed with a quartered cross vault supported by a central pillar. Built in the 15th century in a corner of the plot (Dehio-Handbuch 2003)
Corner of Griechengasse / Rotenturmstrasse	Currently four levels on a 5x5 m ground plan. Built in the 13th century in the corner of the plot. (Dehio-Handbuch 2003; Mitchell 2006; Seebach 2002, 454–461)
Corner of Lugeck 7 / Rottenturmstrasse 6	Built at the turn of the 12th–13th centuries, renovated in the 14th century, dismantled in 1845. Stood in the corner of the plot, was seven levels high. (Perger 1967–1968; Seebach 2002, 454–465)
Eggenburg	
Kremserstrasse 15	At least two levels on a rectangular floor plan. Built at the street front of the plot in the 13th century. Full size unknown (Brunner 1933, 85)

Krems	
Gozzoburg	Two levels with 1 m thick walls on a 7x8 m ground plan. The vaulted ground floor with the kitchen accessible from the courtyard, the upper level with a separate entrance through a staircase and a balcony. The first floor has a heated inner chamber and large windows with benched niches facing the lower town. Outer corners with ashlar masonry. Built after 1249 as part of an urban palace (Mitchell 2012; 2015)
Herzoghof	16 m high with four floors, 1.5 m thick walls on a 9x6 m sized ground plan. Ground floor closed with a vault. Upper floors with gothic tracery windows. Adjoining to the tower a ceremonial hall and a chapel. Built within the plot at the end of the 12th century (Hollensteiner 2015)
Bruck an der Leitha	
Hauptplatz 4	At least two levels. Ground floor is closed with a cross vault. Separate entrance to the upper level. Built within the plot in the 13th century before 1250 (Gröninger 2015, 5)
St. Pölten	
Stadttürme	At least three levels. The whole ground plan is unknown. Built on the street front of the plot around 1300 (Gutkas 1953, 314)

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