

Romanesque Architecture and Urbanism of Banská Štiavnica – Research Results*

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The architectural appearance of Banská Štiavnica in the Romanesque period, especially its older developmental stages, is still not clear to us from an architectural or urban planning point of view. Since the declaration of the city as a Preserved Area (since 1950), much architectural-historical research has been carried out, which enables the summarization of new knowledge in the context of urban development. The current identification and documentation of the oldest houses of burghers and miners followed up on previous research carried out in the 1980s and 1990s, which, however, lacked consistent documentation and interpretation. Although the results of our research still do not allow a complete identification of the oldest buildings in the entire assumed urban area, this study presents the results of research into the architectural- and urban-historical development of the prosperous mining town of Banská Štiavnica during the Middle Ages.

Keywords: Romanesque architecture; Urbanism; Architectural-historical development; Urban-historical development; Stone masonry; Banská Štiavnica.

Introduction

The origin of Banská Štiavnica and its urban-architectural development is connected primarily with mining activity, which in this region was related to the mining of gold and silver. Archival references to the city's beginnings refer to the names of the settlements "Bana" and "Štiavnica".¹ The stabilization of the settlement of Banská Štiavnica and the seat of Bana have been mentioned since 1217.² Historians agree that the fortress built at the place where the ore veins (Špitáľer and Bieber) came to the surface, called "Bana" (today's archaeological site Staré mesto [Old Town]), together with the settlement called "Štiavnica", were one economic-administrative unit. The settlement of Štiavnica was formed as an urban structure on steeply sloping terrain in the valley below the Paradajs and Glanzenberg Hills, which followed along the stream of the same name. Its urban form is original, incomparable with other cities, especially considering that its formation and development were determined by the morphology of steep rocky slopes of volcanic origin. What we consider today to be the core of the historic city (from the Old Castle, the Town Hall Square and Andreja Kmeťa Street to the current

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1 ŠTEFÁNIK, *Mestské hrady*, 188; or ŠTEFÁNIK – LUKAČKA, *Banská Štiavnica*, 55. See also: LABUDA, *Glanzenberg*, 26–27; or TÓTHOVÁ, *Výsledky archeologického výskumu*, 126–132.

2 KAHOUN, *Banskoštiavnický staviteľský okruh*, 10.

parish church – the former St Nicholas Church) was the original city settlement, already featuring two sacral complexes.³



Figure 1: Panoramic view of the oldest historic core of Banská Štiavnica between two Romanesque basilicas. Photo: Katarína Terao Vošková.

The fact that Banská Štiavnica is the oldest mining town in Slovakia is confirmed by written sources and current archaeological and architectural-historical research.⁴ The architecture of burgher houses must have been developed here since at least the twelfth century. However, written sources mentioning any profane construction in that period are almost completely absent. In the case of Banská Štiavnica, there is only mention of approximately 42 “founding families”⁵ related to the given period. Based on the overview of the database of architectural-historical research carried out so far, the development of the architectural-urban form of the residence can be followed in the intervals that we currently associate with stylistic transformations (Romanesque, Gothic, Renaissance period, etc.). The gradual overall transformation of the city – its initial location, subdivision, determination of basic street lines, siting of sacral architecture and silhouette – were primarily influenced by: the economics of mining activity, including its prosperity or decline; the natural determinants of a morphologically-complicated area; historical events; and the development of science and education in the field of mining, metallurgy, cartography and so on.

Art history studies to date have dealt mainly rather with sacral architecture,⁶ and less with profane dwelling buildings. However, a clearer stylistic classification of sacral

³ NOVOTNÝ, *Střední Slovensko*, 34–35.

⁴ ŠTEFÁNIK, *Mestské hrady*, 187.

⁵ PAULÍNY, *Eigentum und Gesellschaft*, 546.

⁶ See for example: MENCL, *Stredoveká architektúra na Slovensku*, 189–202; ŠÁŠKY, *Pamiatky Banskej Štiavnice*, 6–21; or POMFYOVÁ, *II.2 Banská Štiavnica*, 186–187.

buildings makes it possible to relate and compare their architectural constructions and details with the constructions of wealthy burgher houses in the city. In an attempt to find out whether the residential houses could have been constructed at approximately the same time as the churches, we compared the architectural and construction features of these two types of buildings.

In this study, we present findings from research on the oldest settlement in Banská Štiavnica discovered so far, namely that from the Romanesque period, dating back to the thirteenth century. When researching the architectural form of other buildings, especially the residential houses of townspeople and miners, we compared the building materials, shape and proportions of architectural details with more unambiguously dated elements used on sacred buildings in the city. The Romanesque period is represented here by two sacral buildings, which experts classified more than a century ago as belonging to the first third of the thirteenth century.⁷ These are Romanesque basilicas with monumental floor plans and material dimensions, constructed on an advanced architectural level and built at a distance of only about 500–600 meters apart. The first – at that time, the parochial Church of the Virgin Mary (today's Old Castle)⁸ – was built above the fork of two valleys, located at the confluence of the Štiavnica stream (flowing from Paradajns Hill) and the stream from Červená studňa (Red Well). The second sacral object, the Church of St Nicholas, with a Dominican monastery,⁹ was built to the east at the fork of the two main approaches to the city (the line of access from the south, from Levice, Krupina and Budapest; and the northeast approach from Banská Bystrica, Kremnica, Zvolen and Krakow – known up until the eighteenth century as the Kraków road¹⁰). The existence of two culturally and architecturally advanced sacral buildings at that time testifies to the advanced cultural level and importance of the settlement. Judging by the dimensions and quality of both sacral buildings, which were probably already fully functional in the first third of the thirteenth century,¹¹ it is logical to consider that a large population must already have lived in the city by that time. It is assumed that the privilege of a royal city had already been granted to German miners in 1238.¹² Other studies report that in the thirteenth century, miners were already joining together as mining cooperatives (mainly to solve problems in the mining and processing of precious metals). Specific German names of Štiavnica townspeople are also mentioned: Wernel, Wyllam, Thamar, Albert, and the cooperatives of Mertel and Tyrmanus.¹³ For our research, the question naturally arises as to the architectural arrangement of the earliest townspeople's houses, where they were located, and what other typological categories of buildings were present in the period of the two functioning Romanesque sacral buildings.

7 MENCL, *Stredoveká architektúra na Slovensku*, 191–192.

8 LABUDA, *Starý zámok*, 361–369.

9 JANKOVIČ, *Dominikánsky kostol a kláštor*, 127–132.

10 ŠTEFÁNIK, *Stredoveká Banská Štiavnica*, 30.

11 GINDL – VOZÁR, *Banská Štiavnica*, 120–124.

12 KRESÁNEK, *Slovensko*, 516; KAHOUN, *Banskoštiavnický staviteľský okruh*, 10; and ŠÁŠKY, *Pamiatky Banskej Štiavnice*, 6.

13 ŠTEFÁNIK, *Stredoveká Banská Štiavnica*, 25–26 – draws attention to prominent townspeople and miners who in 1270 acquired the surrounding villages (among others, Pukanec) and developed mining in them.

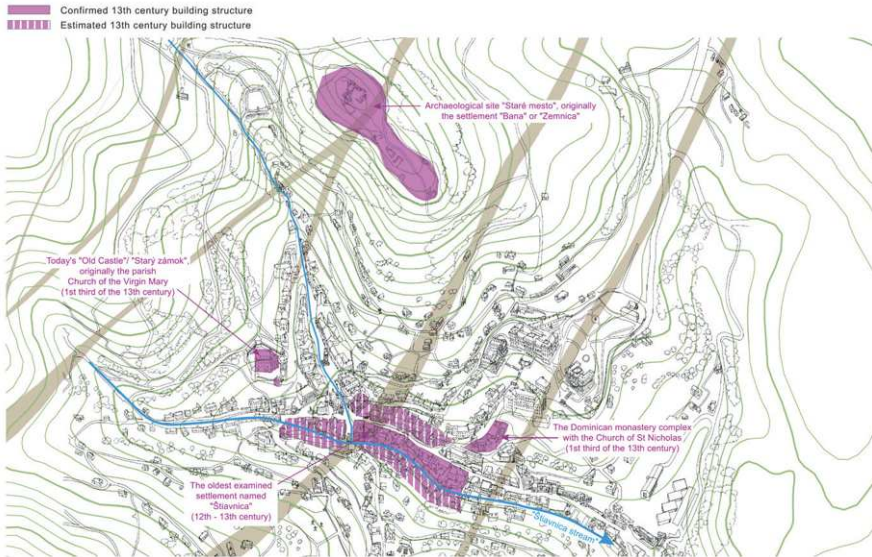


Figure 2: The oldest settlement near the stream and the course of the ore veins. Marking of the oldest building of the city on the current spatial map. Author: Katarína Terao Vošková. Graphically processed by Uršula Ivanová. Map source: Marcel Mészáros.

Research objectives and method

The genesis of the positioning of early residential buildings (residences of townspeople and miners) and the visualization of the possible course of the settlement's subsequent development receive our attention because they have not yet been the subject of deeper comprehensive research in an urban context. In the main, research has been limited to individual buildings (related to the owner's needs and use of the building, which only required research into who owned the property). In addition, research results mostly remain in manuscript form in the archives of building owners and historical institutions. Over the past three decades (since the city was entered on the UNESCO World Cultural Heritage List in 1993 – *Banská Štiavnica and Technical Monuments in the Vicinity*), a number of new archaeological and architectural-historical studies have been processed, and older ones have been updated with new findings. The findings from research since then have been generalized in some studies,¹⁴ but so far, the concept of the material-spatial arrangement of the city has not been visualized according to the stages of its architectural stylistic development. The subject of our project was to transfer the latest data from processed research (archaeological, architectural, and art-historical) to the current cadastral map of the city by individual building development stages, or stylistic "layers", with an effort to visualize the urban-architectural form of the urban-architectural concept of the city in Romanesque and Gothic times. It was an attempt to architecturally and visually

14 CHOVANOVÁ, *Urbanistické*, 153; ŠIMKOVIC, *Kostol v urbanistickom kontexte*, 37–43.

interpret existing knowledge about the stylistic development of the city. In some cases, we attempted a more precise visualization of the forms of details (e.g. documentation of stone architectural elements).

Profane architecture of Banská Štiavnica in the Romanesque period

The lack of written sources and paucity of preserved houses from the period of the twelfth and thirteenth centuries precludes a comprehensive image of the city in the period that we now classify as the Romanesque period. We did not locate the oldest building, which would be linked to the existence of the two Romanesque basilicas and correspond to the logically estimated high population based on previous research in the 1980s and 1990s. Amongst those studies, we rely mainly on archaeological research on the area of the valley next to the stream between these basilicas.¹⁵ Archaeologist Štefánia Tóthová mentions several remarkable findings that confirm the presence of a building located between the two Romanesque churches (on today's Andreja Kmeťa Street). In the "Kammerhof" (Chamber Court complex), she mentions fragmentary findings of stone architecture, which she dates back to the turn of the thirteenth century and confirms the presence of metallurgical equipment there. She considers the terminus of the forked valley at the junction of the two streams draining the surrounding slopes to be the oldest core of the city. Thanks to extended research, especially of the Town Hall Square and Holy Trinity Square in the 1980s, material culture from the twelfth and thirteenth centuries was confirmed.¹⁶ Archaeologists estimate the area of the oldest settlement to have a length of 500 m and an elevation of its boundary of about 60 m in the section between the original parish Church of the Virgin Mary, today's Old Castle, at 632 m above sea level, with the lower courtyard of the Chamber Court complex (Kammerhóf) at 573 m above sea level.

The burgher houses on today's Andreja Kmeťa Street, starting with the Chamber Court building (Kammerhóf) and ending with the house with the old number 27/I, were investigated by Polish experts (Pracownie Konserwacji Zabytków – PKZ) in the 1980s.¹⁷ While their research did not mention "Romanesque houses", they classified the cores of some houses as thirteenth century in two or three cases, specifically in houses 20/I and 21/I, and one wall in house 27/I; the others date back to the fourteenth century. Ten years later, art historian Silvia Paulusová (in collaboration with the architectural historian Mária Smoláková), comprehensively addressed the reassessment of Polish research.¹⁸

15 TÓTHOVÁ, *Výsledky archeologického výskumu*, 128.

16 Namely, "in the southern part of Holy Trinity Square and west of the town hall, i.e. under the elevated position of the basilica". TÓTHOVÁ, *Výsledky archeologického výskumu*, 126–132.

17 PKZ, Leninova ul. 18–27. (Polish experts from the PKZ institution carried out research into the building-historical development of houses in Banská Štiavnica on A. Kmeťa and Strieborná streets in 1978–1980).

18 PAULUSOVÁ, *Nálezy románskej*, 36–37.



Figure 3: Romanesque houses marked in the current street plan (houses 20/I–27/I on A. Kmeťa Street), according to Silvia Paulusová (1994).¹⁹

We consider the results of her research to be groundbreaking, because they corrected and refined the dating of the oldest cores of some houses along Andreja Kmeťa Street. The subjects of the research were architectural elements, the type of stone used, the method of its processing and storage, the proportions of the entrance niches and the shape of the portals, and also the relationship of these building and construction characteristics with the masonry and its details (portal, niche) used in the construction of the ossuary (near the former Church of the Virgin Mary – Old Castle). In the cores of the basement spaces of the town houses, she identified or conjectured the oldest parts of one-room houses with floor plan dimensions of 5.5–6.5 to 7.5–8 meters. The research confirmed, in some cases, the entrance corridor – a narrow access corridor to the entrance portal to the house. The facades of the houses were set back from today’s street line by between 8–20 m. It is assumed that these were two- and three-storey buildings, mostly built separate from one another, and surrounded by a stone wall.²⁰ The structural, material, and architectural characteristics of Romanesque buildings were characterized as “a simple semi-circular portal, straight niche of a door made of worked stone blocks with a cavity for a bolt, carved from the same grey-green andesite”, the same as the masonry in the ossuary at the Old

¹⁹ Ibidem, 36–37.

²⁰ Compare the architectural form of the Romanesque stone masonry house also with finds in Bratislava: ILLÁŠ, *Príspevok k poznaniu románskej*, 21.

Castle.²¹ In summary, historian of architecture Silvia Paulusová concludes that the oldest buildings of a residential nature must have been built “according to a unified urban concept, probably in connection with a strong colonization process at the beginning of the thirteenth century” due to their regular layout.²²

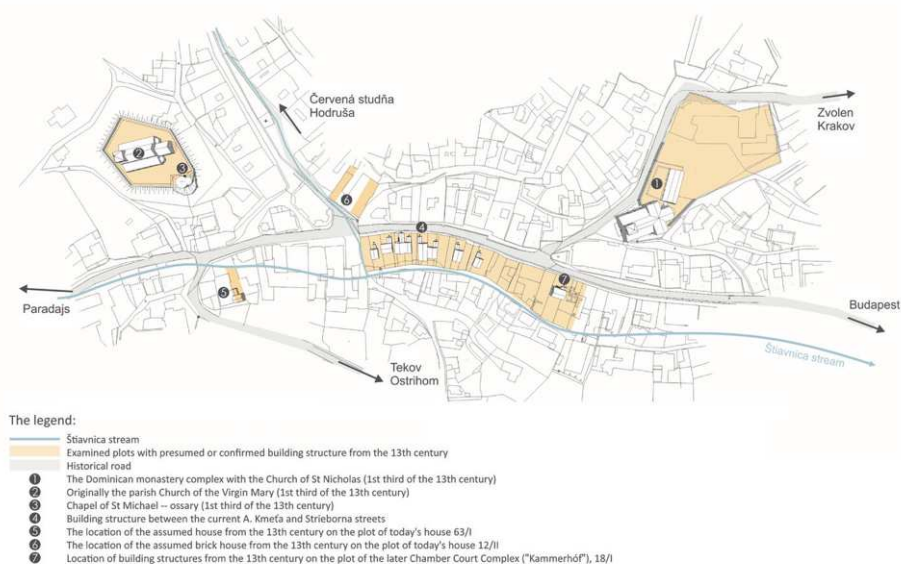


Figure 4: Research confirmed the development of Romanesque houses on A. Kmeťa Street, situated between two Romanesque basilicas and along the Štiavnica stream. Hypothetical reconstruction in the current cadastral map. Graphically processed by Michal Vaňo and Katarína Urgelová.

Research and documentation of identified Romanesque houses

The results of the cited research were interpreted in a graphically modest schematic form. Extensive territorial research, focused on Romanesque masonry dwellings, was not graphically documented in more detail. Therefore, this part of the research focused on the identification of the remaining preserved architecture in situ and its thorough documentation. After a more than twenty-year period since Paulusová's research, many construction modifications had been made in the basements of houses, and the identification of Romanesque constructions in situ was necessary with the participation of experts in archaeology, the history of art and architecture, and mining: Jozef Labuda – for archaeology; Lubomír Lužina – for the history of mining; Jaroslava Žuffová – for comparing knowledge of Romanesque buildings in Trnava; and Michal Šimkovic and Katarína Vošková – for research in Banská Štiavnica.²³

21 PAULUSOVÁ, *Nálezy románskej*, 36.

22 Ibidem, 36–37.

23 VOŠKOVÁ, *Stredoveká Banská Štiavnica*, 12–14.

Although the Polish research of 1978–1980 was processed in great detail, they identified the Romanesque cores of the terraced houses on A. Kmeťa Street (former Leninova Street) in only three cases: 18/I, 20/I and a fragment of masonry in the basement of the house 27/I. The aforementioned archaeological and architectural-historical research (with the exception of the Polish "PKZ"²⁴ from the 1980s, which were perhaps mistakenly evaluated in the dating of the construction phases' beginnings) lacks more detailed graphic documentation. Conclusions from archaeological and architectural-historical research do not agree in all cases of the houses identified by Paulusová. For example, the archaeological research carried out by Dr. Jozef Labuda did not confirm the findings, which would be related to the period of the twelfth and thirteenth centuries (partially realized in house 27/I in 2018 and 23/I in 2010). Nevertheless, more recent historical-architectural research confirms the Romanesque cores and substantiate Paulusová's theses. Recent research theses, especially from researchers Kürthy and Glocková or Šimkovic,²⁵ correct earlier research and studies and confirm other Romanesque buildings.

The goal of our project was to follow up on research from the 1990s,²⁶ to identify and consistently document the oldest Romanesque houses and their characteristic features, and to attempt hypothetical reconstructions of their original appearance. Remaining preserved stonework of the oldest masonry houses, during its almost eight-century history, gradually found itself in the bowels of already-enlarged and rebuilt bourgeois houses. We have photographed the oldest cores of the accessible houses in more detail, architecturally sketched them, geodetically marked them out, and set them in coordinates within the digitized developed street orientation. In individual houses, we have more precisely identified vertical stone structures of walls and architectural details, such as the niches of door frames with arches and especially stone portals or light niches. We have architecturally and geodetically (using photogrammetry and 3D scanning) focused on the masonry and details in the ossuary (Chapel of St Michael at the Old Castle). We have subjected the preserved portals of the houses, which were identified as Romanesque, to a geometric analysis of proportions and compared this with the geometric analysis of the unquestionable Romanesque portal in the ossuary.

24 PKZ, Leninova ul. 18–27. (Polish experts from the PKZ institution carried out research into the building-historical development of houses in Banská Štiavnica on A. Kmeťa and Strieborná streets in 1978–1980).

25 For example: KÜRTHY – GLOCKOVÁ, A. Kmeťa 9, 23/I; ŠIMKOVIC, A. Kmeťa 4, 26/I.

26 PAULUSOVÁ, *Nálezy románskej*, 36–37.



Figure 5: The interior of the Ossuary (St Michael's Chapel) – with Romanesque portals with niches and their straight jambs, built of greyish-green stone blocks. Photo by Lubomír Lužina.

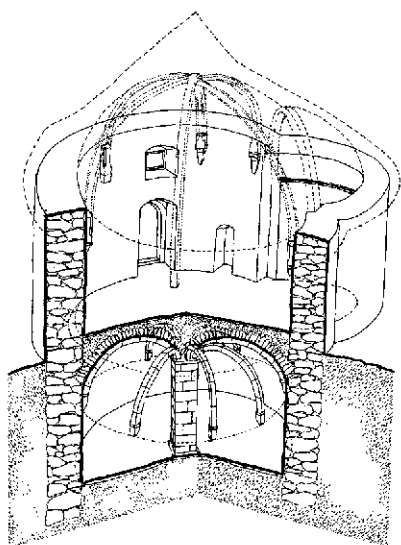


Figure 6: Axonometry of Ossuary (St Michael's Chapel) near the Church of the Virgin Mary. Graphically processed by Marcel Mészáros.²⁷

²⁷ Graphically processed according MENCL, *Stredoveká architektúra na Slovensku*, 197.



Figure 7a: A typical Romanesque portal in House 23/I, A. Kmeťa Street. Interior view of the portal (with a niche). Photo by Lubomír Lužina.

Figure 7b: A typical Romanesque portal in House 23/I, A. Kmeťa Street. Exterior view of the portal. Photo by Lubomír Lužina.

Research evaluation and interpretation

The results of comparative studies of the proportions of architectural elements, especially portals, show proportional and material agreement. The coincidence in the shaping of the door niches (shallow segmental arch and almost vertical, non-sloping door niche), and the use of the dimensions of worked stone blocks is also not accidental. In the geometric analysis of the arched stone portal with a simple square profile without chamfering, we found that it is of a typical Romanesque geometric proportion. Regarding the ratio of width to height: the height is composed of two arches, one on top of the other; the width is the diameter of the arch. In some houses, a typical rectangular niche for setting down a candle or lantern, located on the wall right next to the entrance door niche, has also been preserved. The entrance to the house was not completely preserved in any of the examined buildings. Perhaps it is best preserved in the house with the old no. 23/I together with the Romanesque portal. (However, the level of its threshold fell below the level of today's floor after reconstruction.) Similar is the well-preserved Romanesque portal in house no. 20/I, but the surrounding area has been extensively rebuilt and newly plastered, and traces of the original masonry could not be identified. The mass of the two-storey Romanesque house 26/I has been preserved and found mostly intact, where perhaps the entire 8-metre length is probably

the most intact; the entrance isthmus is 8 m (a narrowed corridor – the original entrance “isthmus” reaches almost to today’s street line of Andreja Kmeťa Street).

A total of eight Romanesque houses on the west-facing side of today’s Andreja Kmeťa Street have been preserved: Romanesque masonry was documented by archaeological research in the Kammerhóf (Chamber Court), and further, in houses with the numbers 20/I, 21/I, 22/II, 23/II, 25/II, 26/II and 27/II.²⁸ It is not totally clear so far, but a Romanesque space is presumed to be part of the basement of the house on Radničné námestie (Town Hall Square) no. 9, old no. 63/I.²⁹ During our research in Town Hall Square, the rear part of the south-east wing in the basement of the so-called Fritz house (old building number 12/II) also appeared to be Romanesque, but this assumption can confirm the architectural-historical research only. It would be necessary to examine these two objects to confirm and clarify the inspection assumptions, or to refute them. Remaining preserved parts of the former Dominican monastery ruins can also be assigned to the Romanesque style (although the preserved remains of construction from the thirteenth century do not provide enough material for a hypothetical reconstruction of its architectural form).

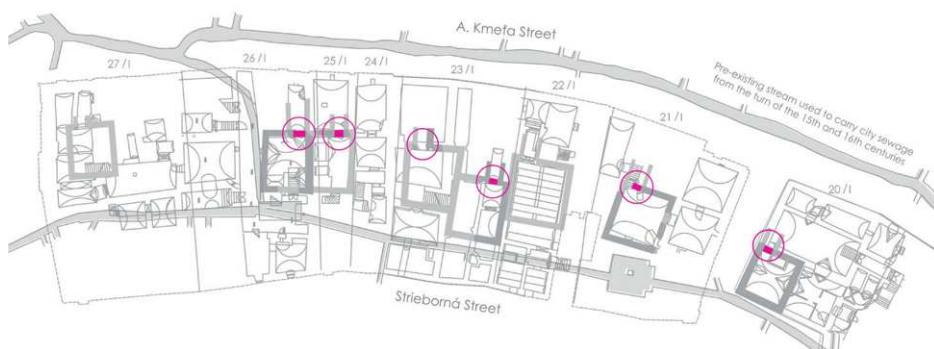
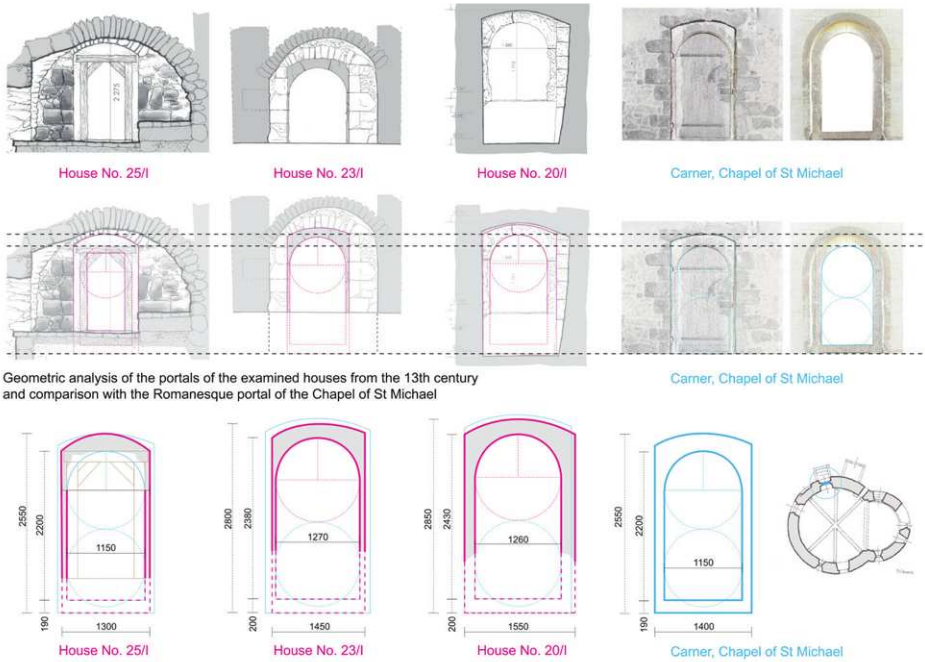


Figure 8: Location of Romanesque portals on the ground floor plans of houses on A. Kmeťa Street. Graphically processed by Uršul'a Ivanová.

28 VOŠKOVÁ, *Stredoveká Banská Štiavnica, 12–14*. A detailed description of the oldest architecture identified or fragments of architecture with characteristic architectural features.

29 KVASNICOVÁ – ŠTASSEL, *Radničné nám. 9, 63/I*. Comparing the results of architectural-historical research and in situ inspection.



Geometric analysis of the portals of the examined houses from the 13th century and comparison with the Romanesque portal of the Chapel of St Michael

Figure 9: Geometrical analysis of the proportions of the portals found in the building on A. Kmeťa Street and comparison with the geometrical analysis of the portal in the Ossuary (St Michael's Chapel) at the Old Castle. Graphically processed by Uršula Ivanová.

When examining the architectural and urban development of the city, the settlement of Bana at today's archaeological site Staré mesto (Old Town) on Glanzenberg Hill cannot be overlooked. The published results of systematic research of the site are contained in the latest monograph of Staré mesto (Old Town).³⁰ Therefore, we do not deal with the building-historical development of this rather atypical urban-mining location in more detail. An exception is the recently archaeologically uncovered one-room stone building with a narrow entrance corridor (isthmus), which was named "house of the ore examiner". In order to compare the parallels of construction activities on Glanzenberg and in the Štiavnica valley, an architectural examination of its dimensions, material composition and construction technology can be used, and a comparison with the oldest residential buildings identified in the basement spaces in the city will certainly be beneficial. From the layout and dimensional point of view, it can be assumed that these were Romanesque stone dwellings, very similar to the ones we identified on the south side of Andreja Kmeťa Street. (Here, too, is a semi-recessed single room with a slightly descending entrance corridor "neck" or isthmus.)

The exact mapping of the identified Romanesque buildings into the current developed street layout and in relation to the course of the former stream (regulated

³⁰ LABUDA, *Glanzenberg*, 127.

during the construction of the Gothic and later Renaissance sewer system) provides a prerequisite for a more accurate reading of the context of the original urban concept. Accordingly, we can also roughly specify the main and secondary street routing of the Romanesque city, the siting of houses and their placement on a purposefully drawn street line, the probable parcelling with the assumption that each of the houses was surrounded by a masonry wall, and the like. Our hypothesis that these are preserved fragments of Romanesque houses is also confirmed by comparisons with identified Romanesque houses in Prague, for example. Around 70 houses, built of hewn stone blocks in the undercastle during the twelfth century, were subjected to research here.³¹

Urban and architectural concept summary

Parcelation

The parcels with the oldest identified stone masonry buildings were situated between two Romanesque basilicas, along a stream called Štiavnica. The location of the first street was laid out parallel to or bordering the curve of the stream. The plots were narrower, perpendicular to the street line. The plots were oriented north–south. The plots were laid out either between two parallel streets (today’s Ulica Andreja Kmeťa and Strieborná Street) or from the side of today’s Strieborná Street. The plots were placed on a steep slope. Pits have not yet been archaeologically identified on the parcels, as in the case of Košice³² or Prague.³³ The plot walls, which very likely protected the object from all access sides, have not been preserved (with the exception of house 26/I – a plot wall in a younger construction stage, and in the case of 27/I, a massive plot wall was identified towards the corner of the today’s Town Hall Square).³⁴

Mass-space concept of the houses

The oldest stone houses identified have a uniform orientation in relation to the cardinal points. Their entrance staircases are oriented towards the main street (through which the stream flowed), the houses laying more or less on axes perpendicular to the street line in the centres of the plots. The staircases in the entrance corridors descend slightly to the partially sunken ground-floor level of the time. The houses were probably two-storeyed, but evidence of this was preserved in only one of the houses examined (no. 26/I).

Building material and technology

Findings regarding stone masonry houses, built from greenish-gray andesite, are also uniform. The same type of stone is also used for the block stone slats and segmental arches of the entrances, oriented towards the interiors of the buildings. Presumed wooden (log or half-timbered) constructions of the stone masonry houses (as have been identified, for example, in Košice) have not yet been confirmed.³⁵

31 ŠKABRADA – DRAGON – TRYML, *Romanesque Houses in Prague*, 26–27.

32 RUSNÁK, *Dve stredoveké parcely*, 147–187.

33 JUŘINA, *Objev kamenného románskeho paláce*, 174.

34 TÓTHOVÁ, *Archeologické výskumy v MPR*, 5.

35 RUSNÁK, *K charakteru stredovekej drevenej zástavby v Košiciach*, 87–88.

Architectonic elements

We analysed in more detail the semi-circular entrance portals and their morphology. By geometrical analysis of the preserved portals of the investigated houses and their comparison with the Romanesque portal in the corner (St Michael’s Chapel) of the Old Castle, it is possible to confirm that these are portals of the same proportion, shape and dimensions, and of the same type of stone used; the proportions and shape of the door niches are also identical (see geometric analysis of portals – Figure 8). Traces of window openings have not yet been found in any of the investigated buildings.

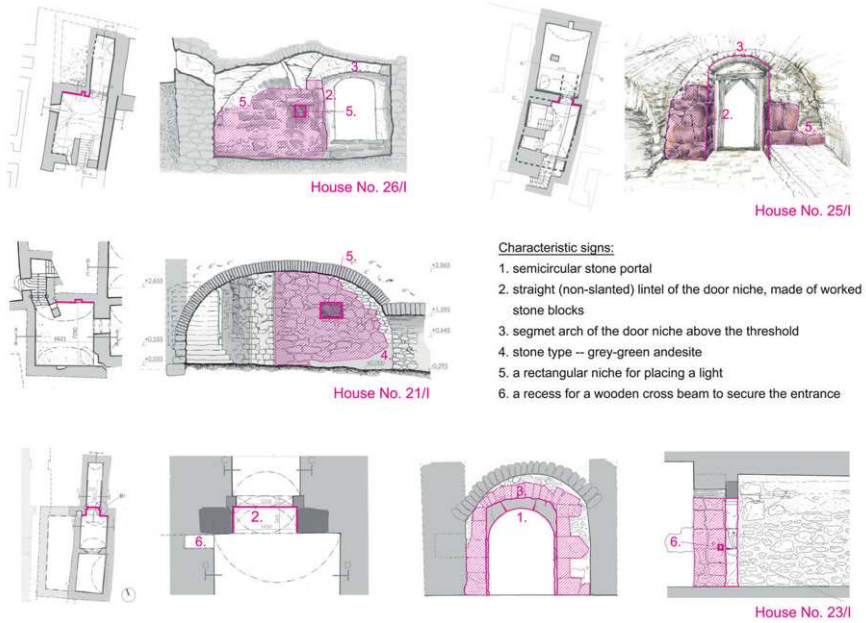


Figure 10: Stone masonry construction of Romanesque residential houses. Identification of characteristic features of Romanesque houses. Graphically processed by Uršul'a Ivanová (source of documentation: Zuzana Holíčková, Barbora Váchová, Róbert Erdélyi – during the Autumn University of Architecture 2018).³⁶

Specifications

The specificity of Banská Štiavnica is that it is a residence that was founded for the purpose of gold and silver mining. In the initial stages of settlement, the research has confirmed the presence of smaller metallurgical facilities in several places. They were identified by archaeological research as a depression in the terrain on the plot (for example, on the Kammerhóf (Chamber Court) plot or house no. 20/I).³⁷

³⁶ Autumn University of Architecture 2018, documentation of houses on A. Kmeťa street in Banská Štiavnica – posters. Archive of the Faculty of Architecture of STU in Bratislava, Banská Štiavnica detached workplace.

³⁷ TÓTHOVÁ, *Archeologické výskumy v MPR*, 5.



Schematic silhouette of the building structure from the 13th century, inserted into the current facades (A. Kmeťa Street)



Floor plans of houses from the 13th century, inserted into the floor plan scheme of houses between A. Kmeťa and Strieborna streets

Figure 11: Location of Romanesque stone masonry houses, determined by research into the floor plan of A. Kmeťa Street. Hypothetical silhouette and floor plan of houses. Dark areas in the floor plan – exactly identified masonry; lighter grey – assumed floor plan of a Romanesque house. Graphically processed by: Uršula Ivanová, Marcel Mészáros.³⁸

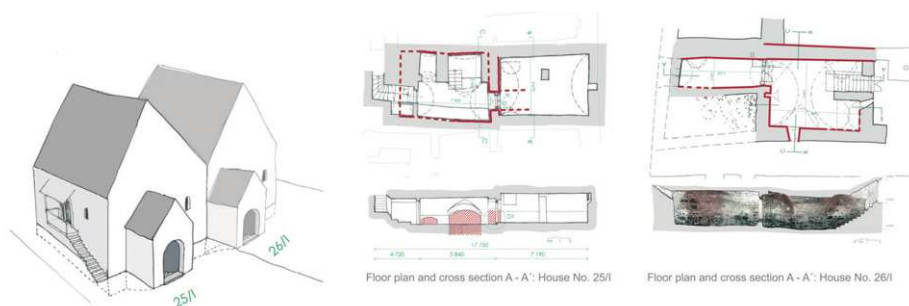


Figure 12: The floor plan of a Romanesque house confirmed by research with the marking of the preserved parts (solid red line) and a hypothetical reconstruction of the assumed architectural form of houses 25/I and 26/I. Graphically processed by Zuzana Holičková.³⁹

³⁸ The silhouette of the houses drawn in the street orientation of the facades according to: PIFFL, *Výskum historickej rezervácie*, 1953.

³⁹ Autumn University of Architecture 2018, documentation of houses on A. Kmeťa street.

Comparison of the architectural concept in the regional context

On the question of the oldest profane building, we can look for a parallel with a regionally closer location, namely in the research of one-room stone houses in Spiš Region (town of Spišské Podhradie).⁴⁰ Here, the author of the research, Štefan Oriško, identifies one-room stone houses in the middle of the plots, offset from the obvious street line. There is a similar situation with houses from the beginning of the thirteenth century in Banská Štiavnica. We find parallels here in the proportions of the layout, in the type of masonry, and in the layout concept of a single room with a slightly sunken basement and an entrance ramp with a staircase. We believe that the explanation for the location of the identified single rooms in the middle of the plot can be based, just as in Oriško na Spiš or Žuffová, in the investigation of Romanesque profane houses in Trnava,⁴¹ on the assumption that the stone masonry buildings were functionally storage spaces/granaries (in that period the most important parts of the building), in front of which wooden living spaces could have been built towards the street line.

These hypotheses can be based on the results of archaeological research in East Saxony, for example in the town of Braunschweig, where the construction concept of the so-called Doppelhaus (double house) has been confirmed.⁴² The Doppelhaus concept is confirmed also in Lower Saxony, in the abandoned village of Vriemeensen, by archaeologist Stefan Hesse, who dates the building to around 1100.⁴³ Archaeologist Thomas Küntzel is investigating a similar concept in the abandoned city of Nienover, where thanks to the truncated urban development, he also finds traces of wooden structures for stone buildings from the thirteenth century.⁴⁴ The results of several archaeological investigations on houses in the centre of Košice testify to wooden constructions assigned to stone buildings.⁴⁵

Based on the historical fact that German settlers⁴⁶ from Saxony have been settling in the territory of Banská Štiavnica since 1238,⁴⁷ it is logical to look for a parallel with the construction practices of that period in the wider Central European regions, especially in the place where they came from. Given that Banská Štiavnica is still a lively city, with houses in the centre used mainly for permanent living, and due to the fact that the houses were rebuilt many times until the end of the nineteenth century, archaeological research in them does not have such ideal conditions as in the aforementioned abandoned settlements in Germany (in the territory of Lower and Eastern Saxony). The authors of the research on Romanesque houses in Prague also admit the existence of wooden residential buildings in front of smaller stone buildings inserted in the middle of the plot.⁴⁸ Only their third type – the smallest typological category of house, with dimensions of 6 x 6.5 m,⁴⁹ which are also inserted deeper into

40 ORIŠKO, *K počiatkom stredovekého meštianskeho domu*, 277.

41 ŽUFFOVÁ, *Murovaný obytný dom*, 59–74.

42 RÖTTING, *Das ostsächsische Doppelhaus*, 40–54.

43 HESSE, *Landliche Steinwerke in Niedersachsen*, 69–73.

44 KÜNTZEL, *Keller des 13. Jahrhunderts*, 184–201.

45 RUSNÁK, *K charakteru stredovekej drevenej zástavby*, 87–88.

46 For the terminological context, compare: ŠTEFÁNIK, *Mesto, jeho pojem a vývoj*, 28–29.

47 MENCL, *Stredoveká architektúra na Slovensku*, 191–192.

48 ŠKABRADA – DRAGOUN – TRYML, *Romanesque Houses in Prague*, 365.

49 *Ibidem*, 262.

the plot and date back to the first third of the thirteenth century – is comparable to the houses of Banská Štiavnica. They also compare this house type to houses from Lower Saxony, the masonry section of which was identified as a warehouse to which a large timber-framed house was assigned.⁵⁰

A rare source for further study of the stylistic similarity is with the concepts of Romanesque burgher semi-detached houses mainly in locations of German Saxony or the Czech Kingdom (also confirmed by Petr Hrubý's new publication on mining and settlement in the Bohemian-Moravian Highlands in the thirteenth century).⁵¹ In any case, for the research of the oldest profane character buildings in Banská Štiavnica and the territory of present Slovakia, the knowledge from archaeological research in Saxony as well as in the Bohemian-Moravian Highlands⁵² is a great source for further comparative studies and an inspiration for deepening archaeological and architectural-historical research to obtain further insights.

Summary and conclusions from the research

We can only speculate as to why only these 9–10 buildings, with demonstrably preserved Romanesque cores and a typical layout, were preserved. Two likely considerations are that most of the houses were wooden or half-timbered⁵³ (a building influence from German territories brought by the first German new settlers⁵⁴) or were completely destroyed by the Mongol invasion (in 1241).⁵⁵ The thesis that they fell victim to modernization and new construction of townhouses is very unlikely.

Based on knowledge from archaeological and architectural-historical research, at least a vague idea of the shape of the street at the turn of the twelfth and thirteenth centuries was formed. The houses of miners and townspeople or, in the beginning, also the production facilities of ore processing plants, were built of stone, with massive walls. There is also a certain urban organization of houses along the stream, although their construction adapts to the rugged terrain conditions; they were initially free-standing, but situated immediately next to each other. After the geodetic "settlement" of the oldest presumed Romanesque houses, a certain axis of the street line can be read here, which was pushed in a southern direction by an average of about 10 metres compared to the present-day street line. The internal dimensions of the houses had internal spaces measuring 5.5 to 6.5 × 7.5 to 8 metres. The original ground floor of the houses was half sunk into the slope and accessible from today's Andreja Kmeťa Street through a longer, narrow corridor (about two metres wide). Stairs descended from the street into the sunken spaces. We have not yet been able to capture the length of the entrance corridor ("the neck" or "isthmus"). It is assumed that Romanesque houses were two to three storeys high. The two-storey structure was confirmed by

50 Ibidem, 365.

51 HRUBÝ, *Metalurgická produkční sféra*, 166–176. Common characteristic features of buildings from the thirteenth century are obvious – semi-recessed one-room masonry stone (or wooden) buildings, accessible through a narrow neck with a staircase, etc.

52 Ibidem, 192. The dwellings of miners in mining settlements in Bohemian-Moravian Highlands, which developed into urban units only under special conditions, were investigated.

53 RÖTTING, *Das ostsächsische Doppelhaus*, 40–54.

54 NOVOTNÝ, *Střední Slovensko*, 54.

55 According to ŠTEFÁNIK – LUKAČKA, *Banská Štiavnica*, 58; and CHOVANOVÁ, *Urbanistické*, 149: "Although the Tatar invasion and looting did not affect the most important objects in the city (the church), they did cause the Dominicans to leave, the population to decline and the subsequent arrival of other waves of immigrants from Germany".

historical research at house 26/I. Stone portals with straight niches (jambs) made of stone blocks in 20/I and 23/I have been completely preserved (in the house with old no. 20/I, a space with a niche without an entrance corridor, which is possibly filled in behind a masonry wall; in the house with old no. 23/I, on the contrary, is preserved the entrance corridor with a portal and a niche in the interior of the former Romanesque house, but its floor plan was later expanded). From these two cases, it is possible to at least reconstruct the floor plan of the house, its architectural characteristics – portal and niche – architecturally and materially analysed, and compared with the preserved Romanesque portals in the Romanesque ossuary in the Old Castle in Banská Štiavnica.

One of the reliable identifiers of a Romanesque portal (in addition to the above-mentioned characteristics: shape, proportion and material used) is also its location. The location within the Romanesque house is always between the entrance corridor – the “isthmus” – and the single room.

The research was based on the professional studies analysed above, on archival and source information, but also on unpublished manuscripts and reports of the archived results of archaeological and architectural-historical research carried out on individual houses in the focus area.

On the basis of our research, it can be concluded that the thesis of the plan-like concept of the creation of the city in the Romanesque period is confirmed. Thanks to the detailed identification of fragments of Romanesque architecture and their details, it can be concluded that not one of these houses has been preserved in its entirety. In some, only the portal has been preserved, the niche on the interior side already having been walled up by additional reconstruction, and therefore unexplorable; in the basement of one, for example, only the interior entrance niche has survived and the entrance staircase can only be guessed at. The idea of the material-spatial form of a Romanesque residential house can only be reconstructed based on the knowledge of all of the houses studied. To supplement the idea of the appearance of a Romanesque house in Banská Štiavnica, we have assistance from knowledge about better-preserved houses from the thirteenth century, for example, in the Spiš region (Levoča, Spišské Podhradie, Kežmarok), which the art historian Štefan Oriško specifies in his expert study.⁵⁶

By visualizing knowledge from archaeological and historic-architectural building research by transferring it to a city map, more questions are raised. They naturally inspire us to make recommendations as to where the monument authorities should pay attention and require rigorous research. In addition, our research outlined the need for better coordination of the multidisciplinary linking of knowledge, namely between preservationists, archaeologists and researchers of historical architecture. For a more comprehensive view of the Romanesque residential architecture in Banská Štiavnica, it will be necessary to examine the houses on the north side of Andreja Kmeťa Street and on Strieborná Street, as well as the row of burgher houses opposite the town hall. It is possible that even the oldest houses on Holy Trinity Square will need to be checked once again from a structural-historical point of view. Archaeological research to confirm the medieval concept of the city needs to be carried out on an ongoing basis when any construction activity occurs in the historic city, especially where development has historically been confirmed and the building later demolished. Only systematic research on a multidisciplinary basis can shed more light in the future on the unclear contours of the visual form of the city.

56 ORIŠKO, *K počiatkom*, 267–276; or RUSNÁK, *Dve stredoveké parcely*, 149–187.

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