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Archeological and architectural research of historic cellars in the western frontage of the Dukla market

Abstract

The article presents selected results and conclusions from archaeological and architectural research carried out within the market square of Dukla. Its purpose was to collect information and define the nature of threshold cellars located there. A part of the work was also to carry out test drillings around the town hall in order to verify the hypothesis about the presence of cellar chambers and underground passages.

Keywords: *Poland; Low Carpathian Mountains, Dukla, western market frontage, cellars*

Preface

In June 2016, sondages and architectural studies were carried out in the market square in Dukla (site No. 13). Their main task was to determine the condition, form and nature of the cellars located at the western frontage of the market, near the west facade of tenement houses No. 20-23. Moreover, the researchers wanted to specify the type of danger that these cellars pose by the exposure to atmospheric conditions. The works were commissioned by the Dukla Commune and were part of the planned revitalization of the Old Town complex in order to make these historic cellars available for tourist traffic – the last original evidence of the past merchant activity of the town in the 16th and 17th centuries.

Outline of the spatial development of the town

The town of Dukla is located on the outskirts of the Dukla Beskids which are the central and, at the same time, the lowest part of the Low Beskids [Gerlach 1972: 9, Fig. 1]. In the north and north-east there is a large paralleling depression called the Żmigród Valley currently used as a transit route [Starkel 2001: 141, Fig. 3]. Moreover, the forested range of mountains extends to the south with the culmination of the Cergowa Mountain, the highest elevation of this zone (716 m above sea level). Starting from this place, the absolute heights descend to the Dukla Pass, which is the lowest passage in the entire Carpathian Arch (500 m above sea level). The location of Dukla in this zone provided great commercial and strategic importance of this area during the last centuries.

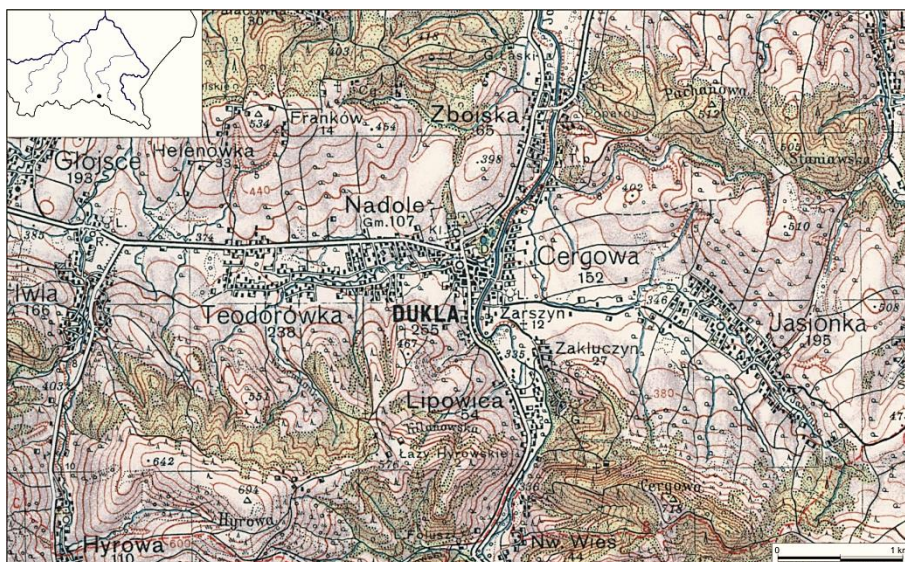


Fig. 1. A section of a 1:100 000 scale WIG map (sheet P50 S33 Jasło, 1938) with the location of Dukla, Krosno county (source: <http://polski.mapywig.org>)

Ryc. 1. Wycinek mapy WIG w skali 1:100 000 (arkusz P50 S33 Jasło, 1938) z lokalizacją Dukli, pow. krośnieński (źródło: <http://polski.mapywig.org>)

Historical origins of Dukla are connected with the privilege of the chancellor Janusz Suchywilk from 1373, in which settlement was based on German laws [Sarna 1898: 498]. The location as a town was made in the years 1380-1402 and confirmed by the decree of Jan and Jakub Kobyłeńscy, subsequent heirs of the town. During this period, a town plan was marked out, which (with minor changes) was preserved until the 18th century and recorded on the “Mieg Map” (the first research 1763-1778).

The town covered the area *in the fork* of the rivers Jasiołka and Dukielka, which was originally fortified with fortifications probably consisting of a rampart and a moat [Figurska-Dudek 2015: 95]. Their course is legible from the north and east sides until today, and it is marked by the embankment and river beds serving as

moats. In the southern part fortifications were running most probably in the area of today's T. Kościuszko street, while their course in the western zone is difficult to reconstruct. In the central part of the town there was a market square, which was a rectangle measuring 90×60 m (ratio 2.5 : 1.5) and an area of about 0.55 ha [Figurska-Dudek 2015: 97, Fig. 2].



Fig. 2. A) The market square in Dukla on the so-called the “Mieg Map” from 1779-1783 (the scale of the original map 1:2880, source: <http://mapire.eu>); B) on the second military (Franciscan) photo from 1806-1862 (the scale of the original map 1:2880, source: <http://mapire.eu>); C) on a cadastral plan from 1851 (scale of the original map 1:2880, collections of the Historical Museum – Palace in Dukla); D) on a modern satellite map (a red rectangle indicates the location of cellars in the western frontage of the market square as a subject of the research, source: <https://www.google.pl/maps>)

Ryc. 2. A) Rynek w Dukli na tzw. mapie Miega z lat 1779-1783 (skala oryginału 1:2880, źródło: <http://mapire.eu>); B) na drugim zdjęciu wojskowym (franciszkowym) z lat 1806-1862 (skala oryginału 1:2880, źródło: <http://mapire.eu>); C) na planie katastralnym z 1851 roku (skala oryginału 1:2880, zbiory Muzeum Historycznego – Pałac w Dukli); D) na współczesnej mapie satelitarnej (czerwonym prostokątem oznaczono położenie piwnic w zachodniej pierzei rynku będących przedmiotem badań, źródło: <https://www.google.pl/maps>)

Originally, it was probably surrounded from the east, north and west by a single row of buildings. As it took place in most of the towns in the 16th century, building constructions located close to the market square were wooden with deep arcades [Prochaska 1889]. Presumably, at the beginning of the 17th century, the first town hall was erected on the market square [Świejkowski 1903]. More information

coming from the mid-nineteenth century about the development of the town is provided by the cadastral map of Dukla, clearly showing the structural division of buildings into brick and wooden (in this period still constituting a significant percentage) structures. Within the market square, all frontage buildings were made of brick in the mid-19th century, sometimes provided with wooden annexes. Unfortunately, the map does not provide information about phases of functioning and changes of the market complex.

The comparative analysis of the nineteenth-century cadastre and the earlier Mieg Map also explains how the transport network used to work. The base was made up of two streets from the north-west corner and two from the north-east corner [Figurska-Dudek 2015]. In addition, there were a number of smaller streets, which allowed connection with the rest of the town. Directly across the market square the Hungarian Route was running, which from the southern side was going through the Hungarian Gate and the Krakow Gate in the north. Starting from the 15th century Dukla played an important role as an element of the trade route between the Hungarian cities and Sandomierz as well as the centre of the local market [Malczewski 2016]. The current urban layout of Dukla is the result of war damage, which took place at the end of World War II and subsequent reconstruction and modernization.

The course of archaeological research

Archaeological research in 2016 was based on, among others, carrying out trial excavations in the area of fore-threshold cellars in the western frontage of the market in places indicated by previous GPR surveys¹. In the vicinity of the western facade of tenement houses No. 20-23, 5 sondages with a total area of 27 m² were made (Fig. 3). Their size and location resulted from the limited availability of space due to sidewalks, stairs between houses and street, as well as greenery growing on the surface.

¹ Non-invasive geophysical works were carried out by two independent teams. The first one, under the leadership of PhD Bernadeta Rajchel from PWSZ (the State Higher Vocational School) in Krosno, aimed at identifying underground structures within the entire market square. These studies provided a number of signals suggesting the existence of underground chambers and corridors with unexplained functions. The second team, led by Adam Sikorski from TVP Historia focused on the areas suggesting the potential location of cellars and corridors under the market's surface. These studies showed a slightly different image than the first one, nevertheless, they confirmed the occurrence of anomalies that could be corridors or underground chambers. These research works, as well as subsequent archaeological excavations were attended by students of the 2nd year of the Building Department PWSZ in Krosno.

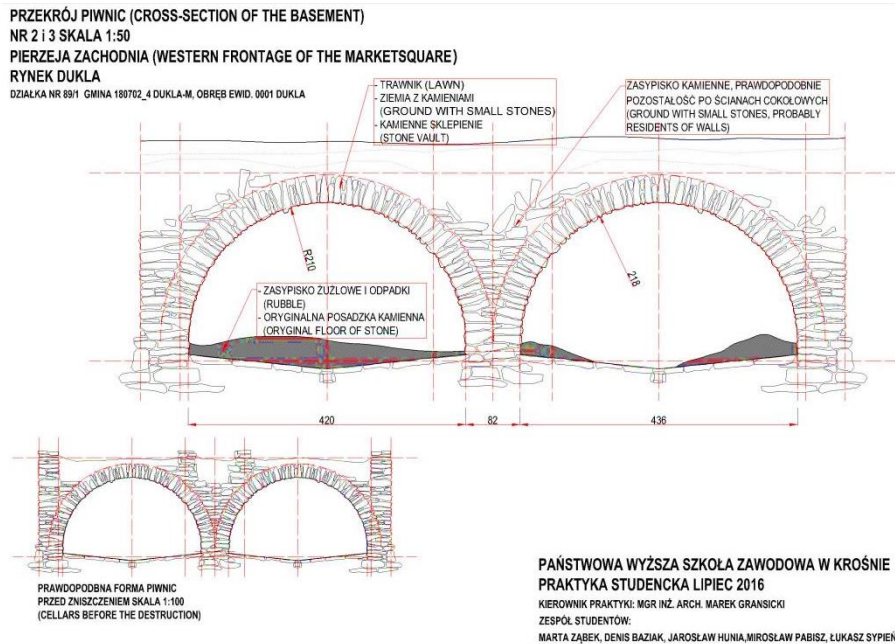


Fig. 3. Plans of the cellars located under the western frontage of the market square (dashed lines, violet colour) and the location of the sondages

Ryc. 3. Plany piwnic mieszczących się pod zachodnią pierzeją rynku (linie przerywane, koloru fioletowego) oraz położenie wykopów sondażowych

Sondage No. 1

It was set up near the facade of the house No. 21 with dimensions of 2×2 m. Under the layer of sod with a thickness of a few centimetres there was a layer composed of river gravel mixed with a small amount of sand and silt. During the exploration, a fragment of the tap valve made of porcelite and single pottery sherds were noted. At a depth of 35-40 cm there was a layer of light grey clay mixed with a small amount of fine river gravel. At the level of 40 cm, the ridges of the stone slabs forming the cellar vault (Fig. 4: A) were found. They were about 25-30 cm long and were joined together tightly to form a self-clamping arched structure of the vault. In some places they were covered with horizontal stones, which may be a kind of ceiling cover or a backfill made of during the house collapse over the cellar. The state of the cellar preservation is very poor at present – some of stones from the vault were badly weathered and the mortar was washed away.



Fig. 4. Dukla, site 13. A) Cellar vault uncovered at the level of 50 cm in the sondage 1; B) a fragment of the cellar vault protected by a layer of concrete, explored in the sondage 4; C) a fragment of the portal uncovered in the sondage 5; D) the gable wall and the vault in the cellar in front of the building No. 21 and 22

Ryc. 4. Dukla, stan. 13. A) Sklepienie piwnicy odkryte na poziomie 50 cm w wykopie sondażowym 1; B) fragment sklepienia piwnicy zabezpieczony warstwą betonu, odsłonięty w wykopie sondażowym 4; C) fragment portalu odkryty w wykopie sondażowym 5; D) ściana szczytowa oraz sklepienie w piwnicy przed kamienicą nr 21 i 22

Artefacts:

1) one large fragment of the base of a brick red-coloured vessel, with green glaze covered on the outer and inner surface; 2) one fragment of the lid handle in the shape of an inverted cone, brick red-coloured pottery; 3) one fragment of a porcelain valve (first half of the 20th century).

Sondage No. 2

It aimed to determine the transition between two cellars located near the facade of tenement houses No. 21 and 22. The excavation trench had the dimensions of 2 × 2 m and in the northern part it was extended by an annex of 2.5 × 1 m. After removing about 10 cm of the surface layer (sod and part of the river gravel layer) a pipe designed for draining rainwater was found, which ran across the western part of the trench and therefore its further exploration along a section of about 1 meter wide was impossible. In the remaining part (eastern and central), a layer of river gravel reaching 35 cm was noted. At this depth, the top of a concrete plug was uncovered, set on the broken cellar vault. It had the dimensions of 90 × 65 cm and it was created (as we can imagine) in the last few decades. The exploration of this trench was completed at this level, due to the poor condition of

the cellar and the danger of collapsing after exposing too large surface of the vault, which could have resulted in harmful burden of the structure.

Sondage No. 3

It was located on the northern edge of the facade of the tenement house No. 22 with dimensions 3×1 m along the north-south axis. In the course of the research, a similar layer system was recorded as it was in trenches No. 1 and 2; the sod was up to a depth of about 5-7 cm under which there was a layer of river gravel, brought there to level the area. At a depth of about 50 cm, a cellar vault was found, stretching along the tenement house No. 22. In this place, it was also possible to notice a bond with another cellar belonging to the building No. 23, arranged along the extension of the first one, and with which it had been previously connected by the use of a portal covered by flat stone slabs. The passage was bricked up in a wrong way, which resulted in the collapse of the mentioned slab lintels. Noteworthy is the wall separating the two vaulted cellars made of flat river stones. In the space directly above the vault there was a layer made of gravel and silt. In addition, it contained two fragments of pottery sherds and a piece of bone.

Artefacts:

two fragments coming from the upper part of a spherical vessel, decorated in the upper part of the body with a “fish scales” motif and a horizontal band, with a frame for the lid made on the inner surface; white coloured ceramics covered with honey coloured glaze on both sides; a diameter of the rim 21 cm (Fig. 5: 3).

Sondage No. 4

It was located near the facade of the tenement house No. 20 and had dimensions of 3×2 m. Directly below the layer of sod, at the level 20-30 cm, a concrete coat was revealed, which completely covered the cellar vault with an arch diameter exceeding 4.0 m (Fig. 4: B). According to information obtained from the employees of the Commune Office, it is likely the way that the whole cellar was protected after the collapse of the nearby street. In the place where the trench was extended, the end of the concrete layer was noted and below it the outside part – the cellar top wall. Through a small hole between the stones forming the wall, a fibre-optic camera was introduced inside, which made it possible to determine the state of preservation of the whole structure. It was confirmed that the vault did not collapse and the remaining parts, especially the western and fragmentary middle ones, were filled up. Near the eastern wall of the trench, the exploration went deeper revealing the sequence of layers. At a depth of 50 cm, a layer of burning in the form of burnt clay with a thickness of about 2-3 cm was recorded. Similar evidence of fire were also found deeper (80 cm), but this time in the form of dark grey soil with fine charcoal. With reference to the research on the urban layout of the western frontage of the market square in Dukla, it can be observed that the cellar, discovered in the excavation trench No. 4, can be one of the two cellars of the tenement house No. 105 visible on the cadastral map of Dukla from 1891 (Fig. 2: C).

Sondage No. 5

The trench, measuring 2.3×3 m, was established within the pavement limited by the deeply embedded curbs and a layer of sand stabilized by cement constituting the foundation of the edges of the pavement. After removing paving blocks, ballast was noticed composing of fine gravel as well as more dense ballast consisting of coarse river gravel, sand and large lumps and crushed concrete with a mixture of larger stones – river pebbles that could have originated from the ruins of an already non-existing building. At the level of about 30 cm, it was possible to distinguish a cultural layer associated with the period of existence of historic tenement houses and cellars. It was (starting from the surface) a layer of gravel and silt, yellow clay with a thickness of about 20 cm. Underneath there was a layer of humus soil with a dark brown colour containing a large number of charcoals and small lumps of burnt clay. This layer was heavily cut by the root system of trees growing nearby. In a few places the remains of burnt beams were found, which can be estimated on the basis of preserved fragments as objects with cross-sections reaching several centimetres. At the level of about 65 cm in the western part of the excavation trench, a cellar vault was found, and the foundation of the non-existing building which limited the cellar to the east. In this place, an entrance covered with a stone beam was found, which was walled in with bricks and stones. The entrance from the market square was finished in the form of a fragmented portal with the most visible element i.e. the aforementioned horizontal beam of possible cross-section 20×20 cm (visible height is 20 cm, but achievable measurements of width were from 8 to 14 cm leaving the rest of the structure in the wall). The portal was probably covered with an arched vault, which traces could be seen above the lintel beam. A large number of fragments of pottery vessels and tiles from the seventeenth and eighteenth centuries were found, as well as metal objects and two coins – the so-called “boratynka”. Apart from the remains of equipment and coins, the backfilling included a number of stones that were used to complete the construction of walls and ceilings, probably coming from the collapsed ceiling of the entrance corridor and the walls of that building.

Artefacts:

1) one piece of a pottery rim with a thickened edge and a strip under the rim, grey ceramics, the rim diameter –17 cm (Fig. 5: 1); 2) one fragment of a pottery rim with a strip under the rim, brick red ceramics, the rim diameter –16 cm (Fig. 5: 2); 3) one fragment of pottery, grey outer surface and brick red inner surface; 4) one fragment of a tile with a stylized floral ornament covered with a dark green glaze (Figure 5: 5); 5) two pieces of tile flanges; 6) one fragment of a tableware vessel made of faience (Fig. 5: 4); 7) one fragment of “pseudo-stoneware” vessel covered with dark red glaze inside, brick red ceramics; 8) one small piece of white-coloured ceramics with yellow glaze inside and brown-yellow one outside; 9) one small piece of white-coloured with orange glaze inside and yellow one inside; 10) one pottery sherd of the pottery base, brick red ceramics; 11) one piece of white ceramics with honey-coloured glaze inside; 12) one small piece of white ceramics with yellow-brown glaze inside and dark green one outside; 13) one piece of the pottery handle,

brick red ceramics; 14) one piece of an unidentified lead item; 15) one piece of an unidentified iron item; 16) Two copper coins – *szeląg* of Jan Kazimierz, the so-called “*boratynka*” (Fig. 5: 6, 7).

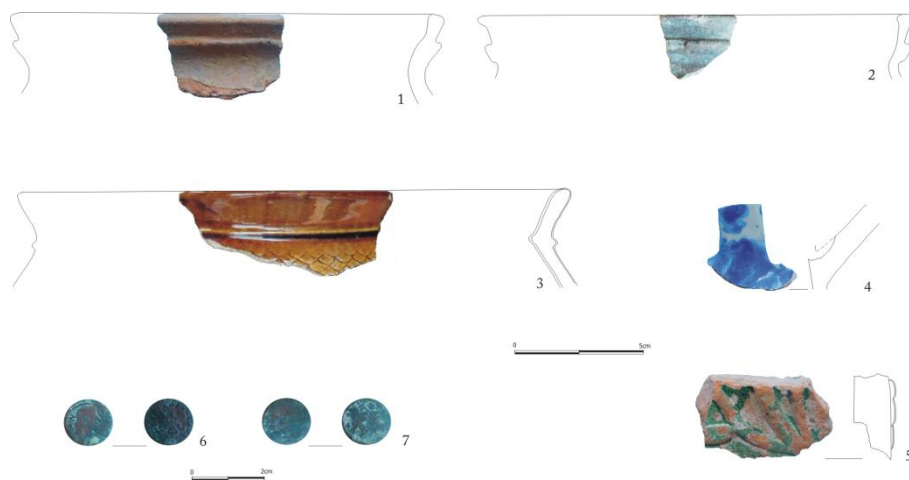


Fig. 5. Dukla, site 13. Artefacts excavated during the research: 1-3 – pottery vessels; 4 – faience vessel; 5 – tile; 6, 7 – coins

Ryc. 5. Dukla, stanowisko 13. Materiał zabytkowy odkryty w trakcie badań: 1-3 – naczynia gliniane; 4 – naczynie fajansowe; 5 – kafel; 6, 7 – monety

The material remains that were collected during the research are not numerous and includes altogether 15 fragments of pottery vessels, 3 pieces of tiles, 2 metal objects and 2 coins. Pottery is little differentiated in terms of technology and forms. Some pottery sherds are characterized by monochrome brick red firing, made in an oxidised atmosphere. The next group is white or white-grey in colour and is characterized by high hardness. This assemblage also included pottery sherds of grey colour, fired in a reducing atmosphere. With reference to the uncovered forms of the pottery, the most numerous are fragments dating back to the 17th and 18th centuries [Czopek & Lubelczyk 1993]. They are mainly squat pots with arch-shaped rims and thickening at the edge, provided with a horizontal strip (Fig. 5: 1, 2), sometimes covered with honey-coloured glaze (Fig. 5: 3). This ceramics is probably a product of local craft workshops. As for the ceramic material, it is also worth mentioning a piece of a faience vessel with a preserved handle (Fig. 5: 4) and pieces of tiles coming from the 17th century with a floral ornament covered with green glaze (Fig. 5: 5). In addition, the layers of the excavation trench No. 5 also provided 2 coins – *szeląg* of Jan Kazimierz, the so-called “*boratynka*” (Fig. 5: 6, 7). Their poor state of preservation makes it impossible to determine the date of minting. The uncovered materials indicate that the cellars, which were the archaeological research subject, were intensively used during the 17th century.

Part of the studies, aimed at identifying the situation on the western frontage of the market square and in the immediate vicinity of the town hall, were based on non-invasive tests using a GPR. Indications of the device showing the occurrence of anomalies under the concrete slabs of the market square suggested the possibility of

traffic connections between cellars of the western frontage and cellar chambers located under the town hall. Considering the studies and information collected from the residents, it was possible to infer the existence of remains of historic constructions of the market square. The site of the anomaly was marked by several points, where four test drillings were made with the use of a mechanical drilling rig. In the borehole RD1, located south of the town hall, it was found a layer of gravel and clay at the level of 15-50 cm, under a stone slab. From the depth of 50 cm it was accompanied by a layer with stones, and at a depth of 60-70 cm a large amount of charcoal was found. Further, at a depth of 80 cm there was a layer of dense clay in brown colour, containing archaeological remains (small pottery sherds coming from the Modern period and a piece of glass) at the top. It reached the level of 170 cm, that is almost the total depth of the borehole, which was completed 10 cm below. Another borehole RD2, placed in the western part of the town hall, directly in front of the entrance. A very similar stratigraphic arrangement was found as in the case of the RD1 borehole, and only the layer of soil with charcoal was somewhat thicker and reached a level of 100 cm. Single pottery sherds and bricks were registered there. Dense, brown-coloured clay was deposited to a depth of 180 cm. The other two boreholes were set up in the north of the town hall. The RD3 borehole was 92 cm long, while the RD4 borehole was 57 cm long. Directly under the layer of concrete, ballast there was yellowish clay, without a layer of charcoal and artefacts in this case.

Contrary to earlier GPR results, the drilling tests did not confirm any additional cellar chambers (in the form of empty space) or other construction evidence within the market place. However, it is worth noting, that due to the point (not linear) nature of the research, the occurrence of cellars cannot be excluded (similarly as in the case of cellars in the western frontage, where the geo-radar did not show the existence of cellar chambers). Different geological anomalies recorded in the course of both tests can be linked to the occurrence of variables in the annual cycle, watercourses or high soaking of the ground with groundwater.

Drillings in the town hall area have delivered rich geological material containing quite thick cultural layer with pottery sherds of modern ceramics lying over the surface of the rock bed. They can be considered as layers resulting from levelling the area in the course of undetermined reconstruction of the town. Large amount of charcoal and burnt places located at the depth of 60-100 cm is probably the evidence of one of the fires which took place several times in the period from the 15th to the 19th century². The exact location of the cellars mentioned by the inhabitants of Dukla in the area of the Town Hall remains an open question.

² Historical sources mention of at least several fires that appeared in Dukla, contributing to significant damage of town buildings. The first one took place in 1474 during the raid of Tomasz Tarczay of Lipiany [Sarna 1898: 459], others in 1725, 1738 and in 1758 [Świeykowski 1903: 30; Słownik... 1956: 168]. In the 19th century, five fires took place in 1810, 1821, 1884, 1885 and in 1891 [Świeykowski 1903: 45; Morawska 2008: 52].

Conclusions

The research undertaken within the urban revitalization program (despite its limited spatial extent) has yielded very interesting results. The nature of the cellar chambers investigated in the western frontage, their connections with modern cellars, supplemented with the description of the inhabitants, allows the researchers to claim that the studied objects are threshold cellars. This is confirmed by the dimensions of the chambers and their location in relation to the frontage plots marked on the map of the 19th century and the course of the construction line of the Dukla market square before World War II [Kubit 2012, Fig. 17]. The structures uncovered during the research suggest that they could have been originally covered with arcades of wooden houses, as it took place in nearby Jaśliska [Gransicki unpublished results of the studies]. The survey of church property carried out for this town in the second half of the 18th century clearly indicated wooden buildings with arcades around the market square as the primary housing [Prochaska 1889]. The document also mentions the so-called "tenement houses" that can be identified with buildings made of stone. On the basis of this comparison, it is possible to claim that before the construction of brick buildings around the market square in Dukla, the town's frontage buildings had the similar character of wooden, compact frontages with arcades.

In the spatial layout of the western frontage of housing complex, there are clear differences in the arrangement of cellars. The southern part, currently consisting of three chambers (two are not accessible from the modern cellars, one is accessible via a 1.5 m long corridor from the side of the building No. 21 but unused due to moisture), has the location along the longitudinal axis of the vault perpendicular to the market square (Fig. 2). The northern part, which starts in the approximate centre of the frontage, has a longitudinal arrangement and consists of three cellars, which have walled up transitions between them. These cellars have a width exceeding 4 m and a length of 9 m, with a vault height of 2.40 – 2.70 m. The vaults of the cellars are made of yellow-brown sandstone, which was probably obtained from the quarry located on the Kamień mountain near Jaśliska from the 16th century, in the south-eastern part of the Low Beskids [Krukar 1988]. Cellar chambers could be made by means of the negative method based on cutting out the arched shape of the matrix in the ground where the vault stones were laid. The subsequent removing of the ground material allowed for even settlement and solidification of the vault. Such a method of making the chambers can be evidenced by the lack of binding of the cellar top walls with the vault (Fig. 4: D). All vaults of the discovered cellars were covered partially with gravel and clay in order to load the arches (Fig. 6). However, no traces of floor remains were found. It is worth mentioning e.g. carefully made and still functioning dehydration of cellar chambers, made of broken stones in the form of covered channels in the middle of a flat cellar floor lined with large-sized plates (Fig. 6). The cellar entrances were originally from the side of the market square, which was confirmed in the case of the cellar chamber under the tenement house No. 21 (Fig. 4: C). Based on the collected evidence and premises, it can be argued

that the discovered cellars came at least partially from the blooming period the town in the 16th and 17th centuries. Such a chronology is indicated, among others, by artefacts discovered in the course of sondage excavations.

In order to expand understanding of the town market complex with reference to cellars, further exploration research is necessary, including archaeological studies of alleged ground floors from the 19th century.

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