

THE COLORS OF RENAISSANCE ARCHITECTURE IN SILESIA FROM THE 16TH TO THE MID-17TH CENTURY ON THE BASIS OF SELECTED EXAMPLES

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Abstract

The article is the first attempt to summarize the issue of color in the Renaissance architecture of Silesia. The introduction outlines the purpose of the article; the architectural context of princely residences, noble and patrician houses, and public utility buildings; and also, the timescale of the Renaissance in Silesia. The basis for examining color schemes was the conducted architectural research, in which, in many cases, the authors participated personally. They included the analysis of technology, building materials, and architectural details, as well as stratigraphic studies of plasterwork and paint layers. As a result of the carried-out analysis, two basic color schemes were specified. One involves contrasting smoothly painted plaster with brightly painted architectural details, and the other consists in covering the entire surface of walls with a network of thin stripes that imitate squares. Both color schemes were present in two different versions - with the use of either two or three colors, with the most common being: white, red, ocher, black and gray.

Keywords: Silesia; Architecture; Renaissance; Color; Castle; Palace; Tenement house; Church; Interiors

Introduction

The aim of the article is to show, using examples of Silesian architecture, the vivid color scheme that prevailed in Central European architecture from the 16th century to the first half of the 17th century. This scheme was later lost as a result of repainting or re-construction and is usually not fully reflected in current conservation practice. It can especially be found in residential and patrician architecture, as the 16th century in Silesia was not so much the time of building new churches, but a time of building magnificent castles, palaces and burgher houses. Sacral architecture was not popular due to the Reformation and the mass conversion of princes, nobility and the upper tiers of the bourgeoisie to Protestantism. In turn, the increasing demand for housing architecture was a result of the flourishing of cities and the overall very favorable economic and demographic situation in the region. It can be said that it was the period of the greatest growth of nobility, which lasted until the demographic collapse of the Thirty Years' War (1618-1648) – the turning point that ended the period of the Silesian Renaissance.

In the discussed period, Silesia was one of the crown countries of the Czech Kingdom, which was ruled until 1526 by King Vladislaus II from the House of Jagiellon, and after that date by Archduke Ferdinand from the House of Habsburg. In terms of political geography, its territory was divided into numerous principalities (bishop, feudal and hereditary principalities of the Czech

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Crown) and free state countries. As with the rest of Europe, its elite consisted of dukes, especially the Piasts in the Legnica-Brzeg Duchy, the Saxon Wettins and Hohenzollerns in the Żagań Duchy, and the Piasts in the Cieszyn and Opawa Duchy [1], as well as the princes of Podiebrady in the Oleśnica and Ziębice Principality. Moreover, it included representatives of magnate families that ruled the free state countries, e.g. Milicz, Żmigród, Syców and Pszczyna, and also bishops of the Wrocław diocese, and princes from the Nysa and Grodków area. While the representatives of the knightly class were transforming into landowners living in castles and manors, especially those located in the Silesian Lowland (because the economic basis of their existence was no longer war, but the goods flowing from their land properties), the dream of many burghers was promotion from a patrician to a knight. Ennobled burghers were buying knightly estates, where they built their suburban residences in the type of castles surrounded by battlements, ramparts and moats. They were equally eager to demonstrate their noble aspirations by giving town halls the form of castles. The language of *architectura militaris* was even used in the case of tenement houses topped with battlements. The heraldization of the seats of ennobled burghers and knights in the 16th century also served to demonstrate their higher status. When summarizing the changes that took place at that time, it can be confirmed that there was a phenomenon of blurring the boundaries between architectural types of buildings such as the castles, palaces, manors, town halls and tenement houses of the city patriciate with regards to ideological meaning, decorations, and colors. However, there was still a clear differentiation in terms of their spatial layout and scale. Therefore, a joint discussion of the phenomena that took place in the architecture of residential buildings in the 16th and 17th centuries, which refers to the color scheme that reigned at that time, is justified.

Sources, methods and the state of research

The presence of color in architecture is confirmed by two types of sources – written sources from the epoch, which refer to various types of construction expenses, including the purchase of gold and paint, and also material sources in the form of preserved layers of paintings, which are discovered as a result of stratigraphic studies. The best example of the first type of sources are the so-called Wawel *Accounts* from 1504 -1548 [2].

Thanks to the *Accounts* booked in the years 1508-1509, it is known that the pigments for the interior decoration were purchased in Wrocław. This indirectly proves that expensive pigments in the capital of Silesia, due to the fact that they were often used, must have been an easily available commodity. They included gold, silver, and mountain blue (azurite), as well as some cheaper ones such as ultramarine mixtures (*bonum lazurum*), Spanish green (*verdigris*), and other paints.

The second type of sources are revealed in the course of architectural and stratigraphic research carried out during the reconstruction or renovation of buildings. They refer to the structure of a building and its elements – walls, stone details, plasters, whitewash, and paint layers. These investigations, by checking shreds and joints, aim to determine the stratigraphy of an object and the relative chronology of the formation of its individual parts, including plasters and architectural polychrome. In the case of historic buildings in Silesia, it was mainly from these sources that we learned about the color layers in the Renaissance era.

The range of material sources for evaluating the color scheme of Renaissance architecture began to significantly increase from the year 2000. This was due to the political transformation that took place in Poland in 1989, together with the privatization of many historical monuments of a secular nature, and the increasing number of renovations that were carried out by new owners. Intensively conducted architectural research, which was supported by stratigraphic and physicochemical studies – and in the case of objects from the eastern part of Silesia, also by more and more numerous cases of recreating 16th-century colors - showed that apart from sgraffito there are also other, "more colorful" patterns of architectural polychrome. The problem of Renaissance sgraffito facades has already been comprehensively presented in the subject

literature [3, 4]. However, in the literature to date [5-9], there is not a lot of information about the color scheme of Renaissance facades in Silesia. Friedrich Kobler and Manfred Koller briefly discussed the color scheme in Austria, Germany, the Czech Republic and Silesia [5]. The authors mentioned the painted decoration of the southern facade of the town hall in Wrocław - although it dates back to the Gothic period [10] - and the blue (?) color of the facade of the tenement house under the Griffins [11]. Wojciech Brzewowski cited examples of the facades of the manors in Domanice, Maniów Mały, Pielaszkowice and Dziewin, which had a color scheme consisting of a dark detail on a lighter background. However, he omitted information about what colors were used on them [6]. In terms of interiors, there was also no attempt to take a synthetic look at the phenomenon in question. Although Karolina Białobłocka cited the results of the stratigraphic studies of three examples of architectural polychrome (the tenement house Rynek 6 in Wrocław, and also castles in Luboradz and Komorowice), she did not analyze the background or the genesis of the described phenomena [12]. *Krzysztof Eysymontt* [7] also very briefly presented the issue of the colorful decoration of facades and interiors with regards to manors in Silesia. He discussed the issue of sgraffito only within figural decoration and the forms of geometric elements. In terms of interior design, he only presented forms of decoration, and completely ignored the issue of colors. He based his studies on the decoration of the walls and vaults of manors in Wojnowice, Ciechanowice, and Świdnica, and also ceilings in Luboradz, Gorzanów and Lasów [7].

Discussion

Color and texture of the facades of Renaissance buildings in Silesia

The Ducal castle in Brzeg—a blaze of color on the stone facade of the gate

If the modern yearning for life in beauty and comfort can be considered as a distinguishing feature of the Renaissance, then in Silesia it can especially be found in the capital city castles of particular principalities. The Piast line of the Legnica-Brzeg dukes and duchesses was of significant interest to the investors and patrons of the arts of that time. Among the castles they rebuilt (Legnica, Brzeg and Chojnów), the facade of the gatehouse of the castle in Brzeg deserves a special description in terms of its color and its exceptionally rich sculptural decorations. It was an outstanding work of Italian artists from the Parry family, who came to Brzeg in around 1544 from Bissone on Lake Lugano. The 3-storey gatehouse was probably the work of the greatest artist in the family of Francis. The facade shows the genealogy of Duke George II Piast and his wife Barbara Hohenzollern. These contents were expressed graphically in the form of two rows of 24 carved busts of the ancestors of Duke George II, which were placed at the joining of floors I and II. The culmination was the natural-sized full-shaped figures of the royal couple, which, together with the heraldic cartouches that were held by the squires, were placed one floor below the busts—above the arcade of the entrance gate to the castle (Figs. 1 and 2). The plastic decoration of the Brzeg Gate is one of the most outstanding in Central Europe. In Poland, this work is second only to that of the Wawel [13].

Heraldic cartouches with jewels, which were located under the windows of the first floor, and also coats of arms in the balustrade that was crowning the gate, were covered in many colors. Moreover, the statues of the royal couple, the gallery of ancestors, and the flat ornaments that tightly filled the pilasters' panels were also originally painted. This was confirmed by investigations of the painting layers, where relics of red paint were found. This paint was originally the background for the heraldic cartouches, mantling and checkerboards in the coat of arms of the Legnica-Brzeg Duchy. In addition, a flesh color covered the hands of the royal couple and other people in the gallery of the Piast dukes, which was also found in the case of the busts of Frederick II of Legnica, Henry IX of Chojnów, and Luis III of Oława [14]. Blue and navy blue were found on the sleeves of the robes of Dukes Henry VIII of Brzeg and Luis III of Oława, while red was found on the caps of several other dukes [14].



Fig. 1. Brzeg the Ducal Castle: (a) stone facade of the gatehouse, (b) first floor windows with the coats of arms of Prince George of Brzeg, Elector Joachim Hector Hoheenzollern and Barbara Hohenzollern, (c) close-up of a cartouche with the Coat of Arms Prince George of Brzeg, (d) cartouche with the coat of arms Coat of Arms of Elector Joachim Hector Hoheenzollern, (e) cartouche with the coat of arms Coat of Arms of Barbara Hohenzollern. Remnants of multicoloured painting were also found on the figures of the Duke and Duchess and on the knights supporting the cartouches of arms [3]



Fig. 2. Brzeg, the Ducal Castle: courtyard, gate arcade, coat of arms of Duke George of Brzeg (a), coat of arms of Barbara Hohenzollern (b), general view (c)

The obtained results indicated the presence of a certain color scheme in the depiction of the figures of the rulers, but they were too vague to provide a basis for restoring the full color of the gate's reliefs. In the cloisters, relics of historical paint layers were discovered within the west wing. They included whitewash found on the surface of the walls of the second floor, and a red band painted around one of the windows [14]. This confirms the trend of painting window stonework red in contrast to whitewashed walls (Fig. 3.).



Fig. 3. Brzeg, the Ducal Castle: Design of the north wing's facade [3]

White on red, red on white, red on salmon

The opposite color scheme to the one used in the Brzeg castle can be seen on the elevations of the manor houses in Białobrzezie (Rotschloss) from around 1550, as well as on those in Słupice and Radzików from 1562. These walls were entirely covered with a brick-red paint layer as a background for whitewashed window bands, as well as for the imitation of window cornices, pediments, windowsills, inter-story strips, and quoins, which were made only in plaster using the sgraffito technique. This simplified method of decorating facades could have come to Silesia with the aforementioned Parry family from Tessynia—a town from the Italian-Swiss border [4]. The bands of three windows preserved on the ground floor of the eastern manor house in Jaźwina [15] were decorated in a similar way as the manor house described above. From them, only fragments of plaster imitations of the window cornice remained. Its smooth and white texture stood out from the coarse gray-beige plaster of the wall. The painted decoration of the facade of the palace in Struga, rebuilt by Abraham von Czettritz in the years 1532-1565 [16], was carried out according to a similar principle. The facades of the palace were covered with smoothed whitewashed plaster. The window openings had yellowish-ochre frames with an illusory imitation of a profiled windowsill and a pediment cornice. The painted decoration was surrounded by a red frame that emphasized the imitation of the profile made of smooth elements. The palace's corners had a smooth imitation of rectangular or triangular quoins. Their outline was highlighted by a frame composed of two red stripes that were separated by a white one.

A two-color scheme consisting of umber details contrasted with whitewashed walls is known from the facade of the town hall in Zielona Góra [17-19] and the chapel of St. Cross in Nysa [20]. The first of these buildings, made in 1547, was composed of plastered bands (made with the use of ceramic fittings), which were painted in a yellowish-umber color, and a facade that had whitewashed rubbed plaster. In turn, the facade of the chapel of St. Cross from 1586 consisted of an ogival stone portal with shallow fascia profiling, cornices of a stepped gable, and a western portico supported by two columns in the Tuscan order. The color scheme involved a red-brick color that was used for emphasizing detail on a white background (Fig. 4).



Fig. 4. Nysa, St. Cross Chappel, the color scheme of the facade from 1586

The second color scheme has gained great popularity in Silesia and can also be found on the facade of the Schönaichianum gymnasium building in Bytom Odrzański [21, 22], in which the northern portal is painted in red monochrome.

The three-color facade of the Renaissance palace at Niesytno castle in Płonina can be added to the group of architectural polychromes described above. It was a composition of horizontal and vertical stripes. The horizontal stripes separated the storeys, and the vertical stripes divided the building into two-window spans. Although three colors were used here: salmon, beige and dark brick red, the general expression of this composition and the used colors bring to mind the above-mentioned examples (Fig. 3). This impression was deepened by the original color of the windows' stonework, which was covered with dark brick red for contrast. This can only be assumed because where there was no window (due to the presence of a latrine shaft), a false window was painted in this color (Fig. 5).

The precise dating of this composition is not possible. The beginning of the construction of the palace is marked by the date "1545", which is placed on the gate portal. It was erected by Georg von Zedlitz. The facade was at that time covered with gray coarse plaster, which was then whitened. In the corners, every 36-37 cm, horizontal grooves imitating corner quoins were carved. The three-color composition described above was probably introduced in the 17th century. It was also shown on copperplate engraving from 1803 by F.B. Endler, with the colors then being covered with two layers of plaster [23-25]. Its bright, red-salmon colors and smooth texture seem to be closer to the aesthetics of the Renaissance than to the Baroque.



Fig. 5. Niesyto Castle in Płonin. Photo-scan of the southern facade with the remnants of architectural polychromes, and also a reconstruction of the 17th-century color scheme (drawing by M. Chorowska and P. Błonieński)

Black and gray on white

Color schemes, which involve the painting of details in a dark-gray color and the whitewashing of textured background planes, were found on several monumental buildings in the cities of Silesia - mainly in the area of the former Principality of Nysa and Grodków. The facade of the eastern tower of the town hall in Szprotawa, erected in 1536, is the oldest example of renaissance articulation and a renaissance color scheme [26, 27]. Rusticated corners and the inter-story bands were made of graphite-gray colored plaster, while the window frames were painted black. The background of the composition was smooth whitewashed plaster.

In a similar period, the color scheme was also applied to the facade (currently preserved in the attic) of the church of St. John the Evangelist in Paczków after its encastellation in around 1539 [28, 29] (Fig. 6a).

It was not only the window frames, but also the contour of the battlement, that were given a dark color, while the background of the wall was whitewashed [28, 29]. The almost black coloring of the details emphasized the very subtle drawing of the articulation of the Paczków town hall tower, which was erected in 1552 by Bishop Balthasar Promnitz [30]. The colorful complement to the decor was a stone clock face with the date of completion (Fig. 6b, c) placed on the southern facade in the middle of the polygonal part, and on the ground floor—the coat of arms of Bishop Balthasar Promnitz with an inscription concerning its founding in 1550 [30, 31].

A similar color scheme can also be found on the two gate towers—Kłodzka and Ząbkowicka—which were rebuilt around the mid-16th century [32, 33]. The edges of the details, the profiled cornice, and a brick helm roof (Fig. 7 a, c) are emphasized in dark gray. An almost analogous color scheme was applied at the turn of the 16th and 17th centuries on the facades of two other gate towers of the Nysa-Grodków Principality: in Grodków on the Lewińska Gate [34],

and in Głuchołazy on the Upper Gate [34]. The reconstruction of the first of them was probably carried out in around 1600 [34, 35]. The facade of the shaft was covered with smoothed plaster with a slightly uneven texture. The corners and the frame of the gate passage, as well as the recesses of the portcullis were emphasized by bossage, whereas the window openings and attic details were framed using smooth bands. The detail was painted in dark gray, and the wall in Roman white (Fig. 7b).



Fig. 6. Paczków: (a) the parish church of St. John the Evangelist, the attic of the main building's body from around 1539; (b) town hall, tower clock face; (c) town hall, tower from 1552

A very similar color scheme was introduced onto the second of the aforementioned towers during the reconstruction funded by Alderman Henrich Adelsbach [34, 36]. The two-storey attic was formed by a section of arcades at the bottom, and at the top by a battlement composed of posts located in the axes of the arcades' pillars, which were topped with palmettes and framed by S-shaped frames. The detail was given a gray color, the palettes – red, and the background – the color of natural lime (Fig. 7d). The same color scheme was also used in residential buildings. The reconstruction of the Alderman building in Głuchołazy, completed in 1607, was financed by Alderman Adelsbach [37, 38]. The three-storey three-winged body of the town palace, known from the view of the city from 1635, was located around the courtyard and covered with a butterfly roof surrounded by a two-storey attic. All the architectural details of the attic, cloister and opening frames were in a gray-black color and stood out against the smoothed whitewashed plaster.



Fig. 7. Attics of the gate towers: (a) Paczków, the tower of Kłodzko Gate (mid-16th century), (b) Grodków, Lewińska Gate (around 1600), (c) Paczków, the tower of Ząbkowice Gate (mid-16th century), (d) Głuchołazy, the tower of Upper Gate (around 1601)

In turn, the painted decoration of the tower of the castle in Otmuchów, the main seat of the prince-bishops, stands out with regards to the presented examples. The tower was built in 1585-96 by Bishop Andreas von Jerin [35]. The rounded corners of the bergfried are illusionistically enclosed by long and short bossage. They are placed in a wide frame, which was painted on two sides in a dark gray color and enhanced with a white strip. The other two sides were painted white with a 1 cm wide black strip underneath. In the inner fields, a delicate marbling was made against a gray background [39]. On the facade, which dominates over the city, a bishop's coat of arms was composed. It was made in white and gray using the sgraffito technique [35] (Fig. 8a and b).

A similar color scheme - gray and black detail with a white background - was used for the construction of the loggia along the western facade of the Augustinian monastery church in Żagań. The loggia, built in 1603, as evidenced by the date on the cartouche, was designed as a two-story one. The ground floor was an arcade extension composed of seven arcades supported on Ionic columns. The axes of each of the spans were highlighted on the first floor with a pair of windows. The wall was crowned with a profiled cornice with a sgraffito frieze that was composed of palmette motifs [40] (Fig. 9)

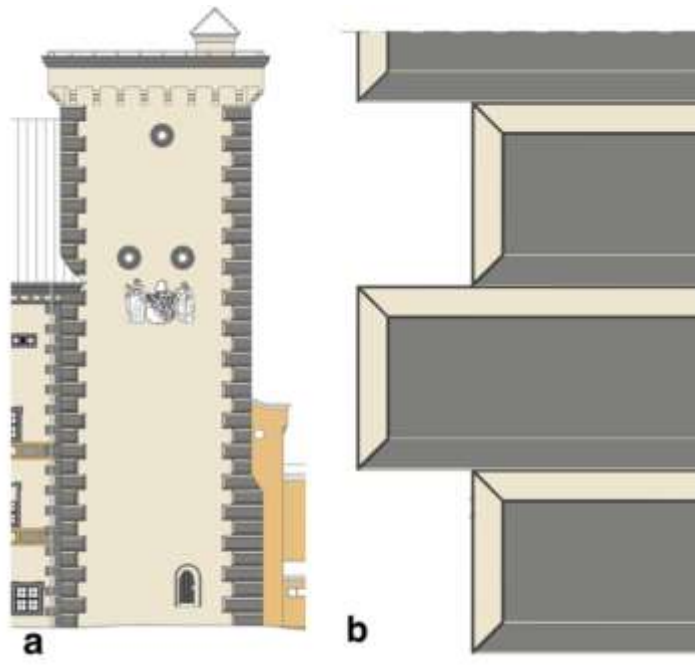


Fig. 8. Otmuchów, castle, tower in the color scheme from 1585-1596:
(a) eastern elevation, (b) detail of bossage [39]

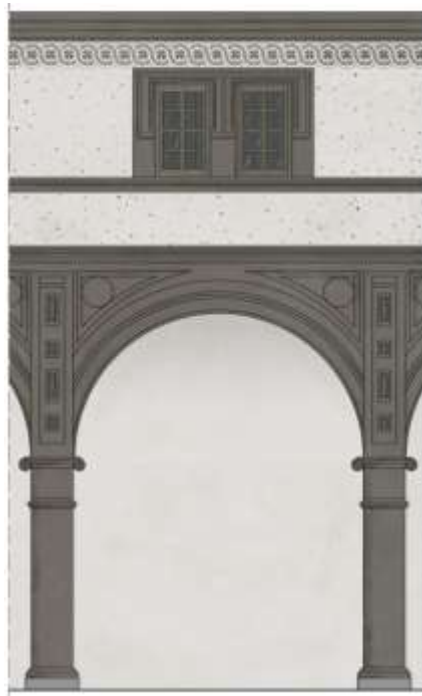


Fig. 9. Żagań, church of the Augustinian monastery, loggia (bay window),
colour reconstruction from around 1603 (drawing by
A. Legendziewicz and W. Fikus (used with permission))

Painted bossage on whitewashed walls

The stratigraphic studies carried out on the facades of a number of patrician tenement houses in the market square of Świdnica revealed layers of architectural polychrome with a motif of bossage from the first half of the 16th century. They were painted with thin lines on a white, light gray or gray background. This simple decoration was applied onto a thin and smooth plaster, which is typical of the Renaissance period. Outlines of the bossage were formed by red, dark gray, or black 1-1.5cm thick lines. These lines were double or single, and both horizontal and vertical. They were discovered on all the examined facades located on the frontages of the market square (Rynek 23, 24, 25, Zaulek Świętokrzyski 2, Łukowa 2) (Fig. 10). The described concept of the color scheme of the facades was probably introduced after the great fire of Świdnica in 1528 [41].



Fig. 10. Świdnica: (a) medieval tenement house in the corner of the market square and No.2 Łukowa Street, (b) view of the facade, which was covered with bright plaster in the 16th century, and on which the illusion of stone cladding was painted with red stripes, photo by the authors

Sgraffito colors

In the second half of the 16th century, the motifs of bossage were commonly executed using the sgraffito technique and various types of cuts and textures, and from the 1580s, entire elevations were covered with them [4]. Their painted versions, and the ones made in plaster, were still used, as can be seen on the facades of churches in Siecieborzyce and Stypułów [42, 43], and on the town hall in Namysłów. In the latter case, the brick elevation of the medieval building was repainted twice in the 16th century [44]. It was first covered with a thin slightly red plaster with the addition of ground brick, which was whitened, and then red stripes were painted on it (Fig. 11) in the rhythm of horizontal joints between brick layers [45].

Sgraffito decoration was one of the richest and most artistically valuable ways of decorating the facades of Renaissance buildings in Silesia. However, paradoxically, those decorations did not introduce rich color schemes to the walls. There were at most two colors—grey or beige as the color of the lower layer of sgraffito, and white as the color of the upper layer of plaster.



Fig. 11. Namysłów, south elevation of the town hall, fragment of an ogival recess with a painted imitation of bricks, photo by the authors

It was the stratigraphic research itself, which was carried out on the facades of the castle in Prószków near Opole and the manor house of Sarny in Ścinawka Górna, in the northern part of the former Kłodzko County, that showed that the colors introduced on the stonework complemented the sgraffito. In Prószków, the profiled frames of window openings were painted in iron red [4, 46] (Fig. 12a and b).



Fig. 12. Prószków, castle, bastion towers: (a) north-west, (b) south-west, (c) Brzeg, town hall, tower in the color scheme from 1585-1596, photo by the authors

In the Sarny castle of Fabian von Reichenbach from the last decade of the 16th century and the first decade of 17th century, the stone frames were underpainted in red, pink [7, 47, 48].

Apart from noble residences, sgraffito was also used during the reconstruction of the gothic seats of municipal authorities. Such decoration was made on the facade of the town hall

tower in Brzeg. During the fire of the city in 1569, the medieval building was destroyed, and its reconstruction, which was finished in 1579, was led by the Italian builder Jacob Parr [49]. The last stage of works was to raise the tower and cover it with a high cupola, as well as to make a new decoration of the facades. The walls were covered with sgraffito decoration with a diamond motif. The color scheme was created by a gray scratched rustication motif, a whitewashed top layer of plaster, and gray-black painted window frames and cornices [50] (Fig. 12c).

At the end of the 16th century, sgraffito ornaments were gradually simplified by taking the form of frames. The method of obtaining color on plaster was also simplified. Some of the surfaces were carefully smoothed and whitewashed, while the others were left rough, coarse, and in the natural color of the plaster. After some time, dust adhered to it and it became more and more gray, thus distinguishing itself from the whiteness of the details. This technique was introduced on the facades of the palaces in Siestrzechowice (1592-94), the church in Żórawina (1602), the palace of Sigismund Schweinichen in Świny (first two decades of the 17th century), the palace of his sister Margaret in Stara Kraśnica (1622), and on both the local mill in the palace and the manor house in Dobroszyce (before 1630) [4]. In all these buildings, there were corner quoins and thin vertical and horizontal stripes, which, by surrounding the windows and by crossing each other in the window axes, formed a network of large meshes that covered the entire facade. The squares at the intersection of individual stripes were sometimes painted in different colors: in Świny—white, in Stara Kraśnica—red, and in Siestrzechowice—yellow. In the latter case, the paint enhanced the color of the natural plaster, which was very yellow due to the color of the sand that was used in the mortar (Fig. 12).

The palace in Siestrzechowice deserves a bit more discussion due to the state of preservation of the facade and its interior, as well as due to the architectural research carried out there [51]. At the end of the 16th century, it belonged to Andreas von Jerin [51, 52]. The *Palazzo in fortezza* type building was probably erected in 1592-1594 at the behest of the Bishop of Wrocław, Andreas von Jerin, for his nephew [51, 52]. The architectural composition of its two-story facade was made of regularly arranged stone fascia window frames, around which a sgraffito frame decoration was made [4]. It consisted of two stripes in which the openings of individual floors were located. The corners of the facade were reinforced by introducing plaster quoins, the drawing of which was enhanced by additional sgraffito tape. The facade had a three-color scheme: the stone window frames, entrance portal, quoins in the corners, and crowning cornice were given a gray color; the sgraffito frames - a yellowish-sand color of natural plaster; and the background was painted in the so-called Roman white (lime). Separate multi-colored elements were the coats of arms on the portal, which were given colors in accordance with the heraldry [51] (Fig. 13).



Fig. 13. Siestrzechowice, palace, north facade, reconstruction of the Renaissance color scheme from 1594 (roof shape - contemporary) [51]

A rich color scheme and unusual technique of sgraffito decoration from the second half of the 16th century was made on the gatehouse at Grodno Castle in Zagórze Śląskie (Fig. 14a-d). This is confirmed by the description of the pre-war castellologist Viktor Schaetzke, edited before the reconstruction of the decoration that was made in 1903-1906 by the Wrocław artist Emil Nöllner. It says: *"detailed research has shown, contrary to previous assumptions, that the plaster did not consist of two differently colored layers, and that the surface was made of only one layer of colorless plaster, in which the background was scratched about 1 cm deep; the relief was perfectly visible thanks to the very carefully cut lines; then the relief was completely painted—the background of the frames was dark blue, the rest was red, the cartouches were gray and in the flesh color, and the remaining elements were yellow, red, and green, respectively"* [53]. Lutsch's photographic documentation from 1903 [54] also confirms its authenticity and the selection of colors [55].



Fig. 14. Grodno Castle in Zagórze Śląskie, sgraffito decoration of the gatehouse from the 4th quarter of the 16th century: (a) view from the outer ward, (b) window frames on the 1st floor from the side of the outer ward after two restoration works in 1903-1906 and 1957-1959, which received vivid colors that were similar to the original ones, (c) state of preservation of the sgraffito decoration on the ground floor, (d) sgraffito-stone gate portal, as seen from the outside (from 2015), which was stripped of color after subsequent restoration works, photo by Agnieszka Gryglewska (used with permission)

The vivid colors of the decorations were enhanced in their expression by fanciful, mannerist forms of rolled cartouche frames (rollworks) and flat "tin" fittings, which were studded with studs and interspersed with small volutes and garlands. The stone portal on the facade of the gatehouse is held by two walking lions, which symbolize the strength and authority of the von Logau family (owners of the castle), as well as their loyalty to the Czech Kingdom [4] (Fig. 14a-d). However, it should be remembered that the multi-colored facades of the gatehouse in Grodno remained an exception to the standard Silesian residences that were maintained in the strict trend of medieval castles. The background for painted or sgraffito decorations was textured rough plaster in a natural color or was whitewashed. The austerity of the vast rough surfaces could not

be broken by either the red or the black color of the window frames, nor by the corner quoins or the battlements of the attics. Their rudimentary character, which was enhanced by the presence of arrowslits, has expressed the language of *architectura militaris* forms for a long time.

Color in the interiors

While in the vivid colors of the castles' courtyards one can see an attempt to break the external austerity of strongholds, their interiors, especially in the case of representative rooms, offered a full range of colors. Currently, in Silesia however, not many examples of well-preserved Renaissance interiors can be found. A relatively large amount of knowledge about their original colors was obtained from research concerning one of the patrician tenement houses (located at Rynek 6) in Wrocław, which during the feudal homage became a royal residence together with its neighboring houses No.7 and 8. During the considered period of time, it hosted such rulers as Vladislaus II Jagiellon (1511), Ferdinand I Habsburg (1527 and 1563), Rudolf II Habsburg (1577), and Matthias II Habsburg (1611). From the beginning of the 16th century, the tenement house belonged to the merchant and banker Jakub Andrzej Boner, who conducted extensive business between Wrocław, Kraków and Nuremberg. Guests arriving at the Boner house, just after entering it, could see the family coat of arms—a lily that was multiplied and inscribed in a composition composed of rhombuses covering all the walls of the back room on the ground floor. The lilies were in heraldic colors: white on a red background, and red on a white background, as well as black on a white background, and the opposite. Apart from that, there were also white lilies against a green background, and other five-petalled flowers [56]. Currently, the lily motif is only preserved in the upper parts of the back walls of the ground floor room, which was originally covered with a ceiling. After the reconstruction of the room in the Baroque era, and the covering of it with a cradle, the polychrome only survived in the vaults' spandrels, which are accessible from the first floor. It is currently exhibited under the glass floor of the first storey (Fig. 15).



Fig. 15. Wrocław, the tenement house at Rynek 6. The remains of the polychrome with Boners' lilies that survived in the vaulted groins under the floor of the first storey; state during the renovation of the tenement house in 2008, photo by Agnieszka Gryglewska n) (used with permission)

In the interiors of the aforementioned Niesyto palace in Płonina, decorations similar to those used on the facades - in the form of imitations of squares - were made in around 1545. On the walls of the largest room on the first floor, they were made directly on smoothed plaster, with thin red stripes painted on a whitewashed background [25].

The colors of the largest room on the first floor were dominated by red. It was an almost square room with windows overlooking the market square, which served as a common room or dining room. In the second half of the 16th century, it was covered with a ceiling with 8-sided

flat coffers painted in bright colors: brick-red, blue, and navy blue, as well as with a green plant flag motif on a red background. In the large 8-sided coffers there were originally big, gilded rosettes, and in the square ones - small rosettes and appliques in the form of angels, seraphs, lion mouths, the Sun, the Moon, and heraldic motifs - everything was made of papier-mâché and gilded or painted. The room was surrounded by an under-ceiling frieze with pairs of dolphins joined together by their tails, and pale green stylized plants on a red background, all enclosed in monochrome stripes of cymatium and astragals. The same diagonal frieze created the illusion of the balustrade of the stairs leading to the second floor. Brick red dominated on the rest of the walls. During the secondary conservation works carried out in the tenement house in 2008, it was decided to return red to the entire surface of the walls of the room, but its shade and texture did not fully match the original. In the next room, the walls were also red up to 1.8m, and on them black stripes imitating the bossage were applied. Above, the walls were whitewashed. The rooms on the first floors had well-sanded and red-painted lime screed floors [57] (Fig. 16a-d).

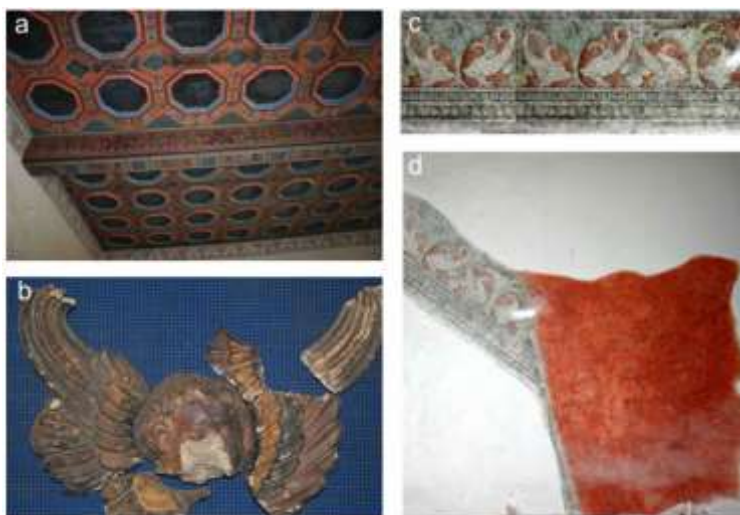


Fig. 16. Wrocław, Rynek 6. Preserved elements of the interior of the common room on the first floor just before the conservation works in 2008: (a) reconstructed coffer ceiling before the installation of the applications and rosettes, (b) a papier-mâché angel that originally filled one of the 8-sided coffers, (c) fragment of the frieze with dolphins in an antithetical arrangement, (d) preserved fragment of the original color scheme of the walls with a painted balustrade with dolphins, photo by the authors and Agnieszka Gryglewska (used with permission)

Staying with the topic of the color of the walls in representative rooms of the Renaissance era, it is worth noting the dominance of two opposing colors—brick red and light green, which were put together directly and without fear of dissonance: sometimes only softening the contrast by introducing gray or white. It was a color scheme with a medieval tradition, which was softened by flower and fruit garlands that were only added in the second half of the 16th century. One of the examples of such a selection of colors was the interior of the dining room on the first floor in the back section of the tenement house at Rynek 33 in Świdnica. The building belonged to Andreas Naucke, who was a multiple councilor, juror and mayor of this city for the 1562/1563 term. The interior was decorated after a construction disaster in 1538, which was described by the chronicler Hieronim Thommendorf from Świdnica, and confirmed by the architectural research that was carried out in this tenement house, during which the remains of its early Renaissance décor were discovered [41]. The dining room was then covered with a pseudo-coffered ceiling. The color scheme of the ceiling above the dining room was based on the contrast between the green color of the flat elements and the red color of the sunken panels and profiles. The coffers were filled with gilded rosettes. The joining between the beams and the wall was

accentuated by a red outliner. The interior of the dining room was completed by the articulation of the front wall with the use of two stone pillars and three arcades. The stone shafts of the pillars, as well as their bases and heads, were painted green, while their pedestals were painted red, as was the case with the plinth part of the wall surrounding this interior. The floor consisted of a brick-red screed made of finely broken brick and lime mortar, which was sanded and sometimes additionally painted red (Fig. 17).



Fig. 17. Świdnica, the tenement house at Rynek 33. Virtual reconstruction of the interior of the dining room on the first floor, [41](Chorowska and Lasota 2013, p. 115, Fig. XXIII)

The colors of the walls remain unknown. They could have been covered with a painted decoration depicting a draped curtain. Such a pattern was unveiled and reconstructed in a room on the first floor of tenement house Rynek 15 in Świdnica [58], [41], and at Zamkowa 1 in Legnica (Figs. 18, 19a and b).

An example of the presence of a figural wall painting can be seen in the presentation of 4 cardinal virtues (Prudence, Justice, Bravery, Moderation) and 3 theological virtues (Faith, Hope, Love) in a tenement house at Zamkowa 1 in Legnica. They were applied onto a wooden partition wall between the chambers on the first floor of the front part of the building. These figures were shown against a white background and separated from the rest of the wood-colored wall by thick red stripes (Fig. 18).



Fig. 18. Legnica, Zamkowa 1. Personifications (from the left) of Love (Caritas), Patience (Patientia) and Faith (Fides)



Fig. 19. Examples of curtains painted in the recesses of patrician tenement houses in Silesia:
 (a) Świdnica, Rynek 15 [58], (b) Legnica, Zamkowa 1

The oldest beam ceilings from the Renaissance period were characterized by such a deep profiling that they were similar to the late Gothic vault ribs. The rollers and concave of the profiles were then painted in contrasting colors in order to multiply the effect of their complexity, as well as for light and shade effects. In the aforementioned tenement house at Rynek 6 in Wrocław, which is one of the best-studied city residences in Central Europe, nine re-used deeply profiled ceiling beams from the 1st half of the 16th century were discovered. They were painted in yellow, orange, blue and navy blue. Additionally, they were decorated with wooden knobs mounted on pegs [56].

In the slightly younger ceilings, the beams had smooth surfaces, on which plant tendrils, lily-type flowers, small figural representations, and even entire narrative scenes were painted in the full palette of colors. From the area of Silesia, four examples of ceilings with scenes are commonly known, three of which can be found in the building at Rynek 6, and one in the manor house in Piotrowice Nyskie. The ceilings in the tenement house at Rynek 6 (which at that time belonged to the Uthmann or Röber families) were of the wood-beamed type. They became the basis for one of the most interesting and best-preserved groups of secular mannerist ceiling paintings in Silesia. The scenes covering them include manifestations of vitalism, joke, satire, and didactics. Some of them are symbolic, others are funny, with some being grotesque, blunt, and even obscene. Some of them refer to male-female relationships, and some to fights and rivalries between males, humans and animals. In turn, others illustrate well-known proverbs and fairy tales [59] (Fig. 20a-d).



Fig. 20. Wrocław, the tenement house at Rynek 6. Ceiling with scenes, above the large room on the first floor: (a) general view, (b-d) scenes

A ceiling from Piotrowice belongs to the group of beam type ceilings. The beams were decorated on their side planes with painting decorations arranged alternately in diagonal lines and in the form of a meander. The bottom planes of the beams received an ornament composed of multi-colored plant tendrils on a creamy-white background. The fields between the beams were filled with closely placed planks. They were painted with whitewashed quasi-coffers, enclosed in the frames of gray slats, and cut off with black stripes. The "coffers" were filled with large rosettes, with motifs of fittings and scrollworks. A large group of decorations were multi-colored plant compositions with the representations of animals (hare, monkey, heron, peacock, falcons, swan, snakes, etc.) and fantasy characters (mermaids). In addition, there were fields with a series of representations of ideological importance, probably presenting personifications of theological (Faith, Hope and Love) and cardinal (Bravery, Prudence, Moderation and Justice) virtues. On one of the beams, the artist left his initials. The preserved painting decoration of the ceiling, especially strapworks, indicates that it could have been created in around 1620. It is possible to link its implementation with the activity of a married couple from the von Schlichting and von Debschut families. The cartouche with the coats of arms of these two families is located in the balustrade of the entrance to the chapel and is dated 1623 [60] (Fig. 21a-d).

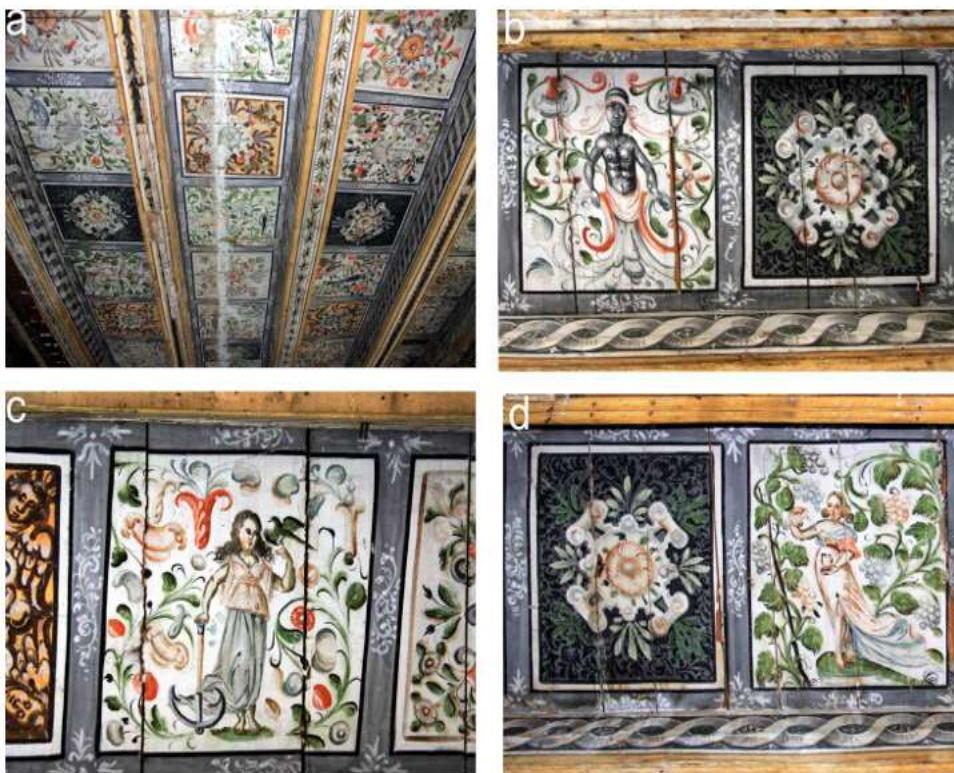


Fig. 21. Piotrowice Nyskie, ceiling. The ceiling above the representative room on the first floor: (a) general view, (b) herma, (c) allegory of Hope, (d) allegory of Moderation; photo by the authors and Agnieszka Gryglewska (used with permission)

In the case of representative vaulted interiors, the intradoses of the vaults were clearly distinguishable in the composition of the walls. In the early Renaissance town hall in Lwówek (1522-1524), in the Ława Chamber on the first floor, there are significant remains of polychrome from around 1546, which confirms this type of wall arrangement. The intradoses show the personifications of virtues, of which the allegories of Justice (*Justitia*) and Mercy (*Caritas*) were legible and shown as winged women floating on clouds. In terms of composition, the intrados with the allegory of Justice was separated from the walls with the use of a band with a statement referring to good governance, respect for rights, and fair judgments. The color scheme was dominated by blue, intense yellow, brick red and juicy green, which stood out from the gray of the background. The content program was complemented by busts of biblical and ancient men (David and Solomon, Moses, Sallust, Plato, and an unidentified figure from the 16th century) placed on the jambs of window recesses, i.e. in separate places [61] (Fig. 22). In the library on the first floor of the cathedral chapter's building in Wrocław, the polychrome intradoses of the cross-ribbed vaults are currently being unveiled and it is still too early to read their subject matter, but the composition and color scheme used in this chamber in 1518-1519 [62] is partially exposed. The sandstone vault ribs were painted red, the vaults were whitened, and the polychrome of the intradoses was separated from the bottom part of the walls by a red-brown frieze.

A color scheme, similar to the color scheme of the ribs in the library of the chapter's tower, was probably used in the interior of the church of St. Matthias in Wrocław, which belonged to the Order of the Crusaders with the Red Star. In 1569, the reconstruction of the interior of the church was completed with the construction of a rib vault in the nave [63].



Fig. 22. Lwówek, town hall. Allegory of Justice (Justitia) with a scale and a sword, painted in 1546 in the intrados of the vault in the Ława Chamber on the first floor, photo by Agnieszka Gryglewska (used with permission)

The date of the reconstruction was placed on the central vault's boss with the coat of arms of the master Bartholomäus Mandel, with the other two bosses belonging to Abbot of Henryków Andreas I Swederi and to the great master of the Crusaders and Archbishop of Prague, Anton Brus — funders of the reconstruction. The ribs are painted ocher, and their edges are highlighted with red rim. Red floral ornaments and a cartouche with a coat of arms with a gray band were introduced on the panels of the vaults located in the axis of the nave (Fig. 23).



Fig. 23. Wrocław, the Church of St. Matthias, vault with colors from 1569, photo by the authors



Fig. 24. Brzeg, town hall, the tower, the colors of the first floor room from around 1579, photo by the authors



Fig. 25 Sistrzechowice, the palace's chapel: (a) general view towards the east, (b) fragment of the north-west corner with the bishops' coats of arms, (c) close-up of the coats of arms of noble families, photo by the authors

A similar arrangement of colors was given to the vault of the cloister in the Augustinian monastery in Żagań. The decoration, which was made in 1620, consisted of imitations of stone blocks painted on ribs in an ocher color, with a frame highlighted by a red stripe. The date of implementation was included on the medallion, which constitutes the keystone of the arcade that leads to the entrance to the presbytery [64, 65].

An interesting color scheme was used on the ceiling of a room on the first floor of the town hall tower in Brzeg. During the reconstruction of the town hall that was completed in 1579, the interior was painted [49]. The vaults were given a black color, which was highlighted at the edges and at the base of the ribs with a red and maroon trim (Fig. 24).

The rich heraldic message has the decoration of the chapel of the palace in Siestrzechowice, which was probably made in 1609 [50]. A rich polychrome decoration was introduced in the vaulted interior, which consisted of the coats of arms of Bishop Andreas von Jerin, Archduke Bishop Charles of Austria, and also one other bishop (unknown). They were placed on the western wall. The fourth bishop's coat of arms was placed on the northern wall, in the section between the western wall and a window. The next multi-colored coats of arms of the families associated with the bishop's court in Nysa were painted on the barrel and lunettes (eight stripes), and also on the southern wall (two stripes). The groins at the intersection of the barrels were emphasized by the introduction of plant tendrils, and on the walls, there was a strip of illusionary fabric fastened in draperies. The floral decorations were also introduced around the edge of the window openings. Moreover, above the entrance from the hallway, the year "1609"—the date of the interior reconstruction—was introduced (Fig. 25a-c).

Conclusions

During the Renaissance, two basic color schemes and their variations were used on facades in Silesia. One involves covering the entire surface of walls with a network of thin stripes that imitate bossage, and the second one involves the contrast of a bright, textured or smoothed background with brightly painted architectural stone or brick details. A dense network of horizontal and vertical lines imitating bricks on a smooth background appeared in Silesia in the first half of the 16th century. This decoration dates back to the Middle Ages, when brick walls were eagerly covered with red paint, with the joints being painted with a mesh of white stripes. A novelty was the square-shaped paintings that imitate the stone cladding of the facades of palaces. They appeared for the first time on the walls of Władysławowska Hall from around 1500 in the Prague palace of the Czech king Władysław Jagiellończyk. Its plastered facades, equipped with large, rectangular windows framed with three fluted Corinthian half-columns, were covered with a network of thin beige-gray stripes, which merged into a drawing that imitates the stone cladding of the walls made of flat bossage. In Silesia, the influence of the Prague Jagiellonian Palace, especially on the architecture of Grodziec Castle and the town halls in Lwówek and Bolesławiec, was noticeable for a long time. However, it was only the stratigraphic studies carried out on the facades of a number of patrician tenement houses in the market square of Świdnica that revealed layers of paintings with a motif of bossage from the first half of the 16th century. In the second half of this century, this motif was most often implemented using the sgraffito technique.

A second popular color scheme was the juxtaposition of smooth, whitewashed plaster with architectural detailing that was emphasized by a dark color in order to create the decor. Most often, easily available black or gray pigments based on charcoal or carbon black were used for such a color system. The presented examples show that these pigments were probably very common throughout all of Silesia. In addition to black or gray, red (ground brick), ocher (iron oxides) and umber (sands) were also used.

Regardless of the color schemes used for facades, it was common practice to paint stonework in intense colors—red, pink, gray, or black. This statement applies to the stonework

of window openings, portals, columns, figural sculptures, and reliefs. The use of such colors was confirmed by stratigraphic studies conducted on the facade of the gatehouse at the ducal castle in Brzeg. It is currently difficult to imagine the original appearance of this monumental stone facade entirely covered with multicolored paintings. The obtained artistic effect certainly exceeded the two-color schemes presented above, and at the same time created an additional group of large-scale decorations, which also include the sgraffito painted facades of the gatehouse at Grodno Castle. Colorful compositions of this type, but much smaller in size, were a frequent setting for the gates and main portals leading to Silesian castles such as Chojnów, Gola, and Prochowice, as well as many noble and patrician houses and manors. However, the colors of the sandstone coats of arms of the ancestors, and the busts of the owners, were washed out a long time ago, with their traces not being subjected to stratigraphic examination.

While the outer side of Renaissance buildings in Silesia remained in the austerity of the medieval castle modus, bright colors reigned in courtyards and interiors. The columns of cloisters and stone window frames were painted red, and sometimes entire walls were covered with red color. At that time, in representative rooms, the most colorful ceilings were beam or coffered ceilings, on which green, red and yellow stripes emphasized the depth of the profiling, and gold-plated rosettes the depth of the coffers. On walls, apart from red, there were blue and yellow medallions, garlands, or painted curtains, with floors being made as screeds with the addition of crushed brick, which were therefore also red. The leading colors were complementary colors of red and green, and also blue and yellow. They were applied on a white background and supplemented with black and gray.

Research and conservation work carried out in recent years enabled hitherto unknown Renaissance arrangements and color compositions to be discovered and recognized. The first discoveries on the facades of the gate towers of Grodków and Głuchołazy, and the towers of the town hall in Paczków, were a surprise to researchers. The subsequent studies in turn revealed how common solutions with strongly contrasted colors of details (black, gray, red or umber) that stood out against the bright background of walls were in the 16th and early 17th centuries. The color systems of the facades of Silesian buildings do not differ from the solutions known from other regions of Europe. Very similar patterns were used on the facades of tenement houses in the Czech Republic, such as the tenement houses in *Český Krumlov* [66]. Buildings in Germany were also painted in a similar way, e.g. Augustusburg Hunting Lodge from 1568-1572, and the town hall in Gera - rebuilt in 1573-1575 [5]. Similar solutions can also be found in Poland, e.g. at the Dirck Lylge House in Gdańsk from 1568-1570 [67].

The restoration of the discovered color decorations with highly contrasting colors surprises the viewer with its intensity. It enriches the cultural heritage of Silesia, which has been destroyed many times in its history by the conflagrations of wars, and also shows us the extraordinary sense of aesthetics of the nobles from Silesia – a district known as the Pearl in the Czech Crown.

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