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Tracery windows from the 14th century in Silesia

Introduction

This paper continues the earlier publications on windows from the 13th century [3], [6]. During that century, the size of windows grew considerably and tracery developed various composition patterns. The tracery windows from the 14th century have not been subject to research so far; they are merely mentioned in monographs and rarely are their drawings or photographs shown. They were used in basilicas and hall churches which served various purposes. They were selected on

the basis of existing studies dated from the 14th century. Traceries have been preserved in churches in 17 cities. Some of them have been renovated or restored in Neo-Gothic forms [1], [20], [21]. Today their changes are often difficult to detect. It seems that most of the tracery windows presented below are original; however, it is not completely certain. A few windows which were probably renovated in the 19th century have also been presented [3], [6].

Windows in church elevations

The constructions of such hall churches as the Church of the Holy Cross in Wrocław, in Kamieniec Żąbkowicki, and the Parish Church in Złotoryja (Fig. 1) which began earlier continued in the 14th century. The three-light, tall, and wide windows in the elevations of the elongated naves of the first two churches are located uniformly between buttresses – similarly to the windows in their older east parts. In the church in Złotoryja, whose nave's construction began from the south in about 1260, there are four uniformly located three-light windows in its south elevation [3]. Its north wall, whose elevation has a different design, was constructed at the beginning of the 14th century. Between the buttresses, there are three tall windows, two of which have two lights, and the third, west one has four lights. There is no window in the fourth, west bay of the main body of the church as there was a staircase tower there. Surely, that is why the west window of the north elevation is twice as wide. It is, however, difficult to explain why the remaining two windows are narrow and have two lights and not three as in the south elevation.

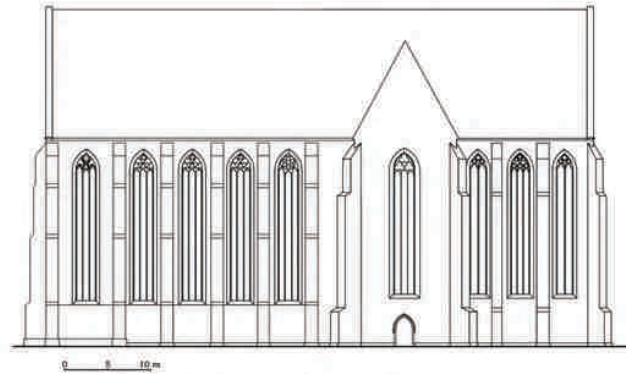
Much smaller windows were built in the Collegiate Church in Głogów which has an elongated presbytery and side chapels with a sacristy from 1335–1345 and a three-aisled hall completed in 1401 [9]. The chapels, which were constructed at the very beginning between the buttresses of the elongated walls of the nave, made the building resemble a basilica. The windows in the polygonal presbytery were tall but the traceries have not been preserved with the exception of one window which was walled-up in the Middle Ages. The two-light windows in the two-storied chapels of the presbytery have been preserved. In each of the elongated elevations of the nave, there were five windows reaching the roof of the chapels with three-light traceries. The windows in the chapels of the main body of the church are Neo-Gothic and have no traceries.

The windows in the Parish Church in Strzegom, which is a basilica, are not so tall as in hall churches but they are very wide. In the presbytery and the main body of the church from about 1335–1370 [1], [19], the windows of the nave have traceries with four lights, and in the aisle three lights and some with two lights. The transept and the presbytery come from about 1370 – the 1st quarter of the 15th century. There are very tall windows in the middle

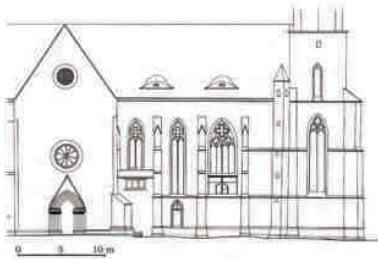
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Wrocław - the Collegiate Church of the Holy Cross



Kamieniec Ząbkowicki - the Cistercian Church



Złotoryja - the Parish Church



Głogów - the Collegiate



Strzegom - the Parish Church



Wrocław - the Church of the Blessed Virgin Mary of the Sand

Fig. 1. Elevations of churches from the 14th century (by H. Golasz-Szólomicka)

Il. 1. Elewacje kościołów z XIV wieku (oprac. H. Golasz-Szólomicka)

apse – with three lights from the east and with two lights on the sides – as well as three-light windows in the gable walls of the transept.

The windows in one of the tallest churches – the parish church in Brzeg which was built in 1365–1390 as a basilica – are tall, especially in the aisles [1]. They have three lights and occupy half of the width of the wall between buttresses and proportionally to the churches mentioned earlier they seem narrower.

There is one window located in each bay on its axis, with the exception of the Collegiate Church of the Holy Cross in Wrocław where the location of buttresses and windows in the upper church, whose bays are twice longer than those in the lower church, is the same as in the lower church [18]. On the outside, there is one window in one bay, and on the inside of the upper church, there are two windows in one wide bay.

Windows in internal elevations

The heights of internal and external elevations in hall churches are the same. The windows are located in tall external walls of the aisles. In most churches, the walls are smooth and the windows are located right under the vaults going down very low. In the upper section of the walls between windows, there are such vault elements as corbels and ribs. Only the south wall in the Church of the Blessed Virgin Mary on the Sand in Wrocław is divided vertically with broad lesenes (Fig. 2). There are no lesenes on the north wall, and the brick strips corresponding to the lesenes were preserved after the postwar reconstruction [16].

In basilicas, the internal elevation of the nave is much taller than the external one blocked by the aisles. In most buildings, it is composed of arcades, a strip of plane wall, and windows located high, with corbels and vault ribs between them. In the St. Nicholas' Church in Brzeg, there

is a strip of wall over arcades and window recesses go all the way to the level of the arcades, architecturally dividing the walls. Only a few buildings have lesenes. They are on the pillars and walls of the nave in St. Elisabeth's Church (1308–1387) and St. Mary Magdalene's Church (1330–1386) in Wrocław [1]. Lesenes evidently divide the wall, with windows located high in the upper section. The internal surfaces of the walls of the aisles remain smooth and have no lesenes. The tests of texture and colors of the walls conducted by E. Małachowicz [17] prove that in the 14th century, apart from the elements of architectural divisions, also different colors were applied (brick, plaster), which emphasized the natural divisions: for instance brick edges near plastered window recesses or brick edges of pillars. Two-color window recesses are the elements of the whole color composition of the wall and the interior.

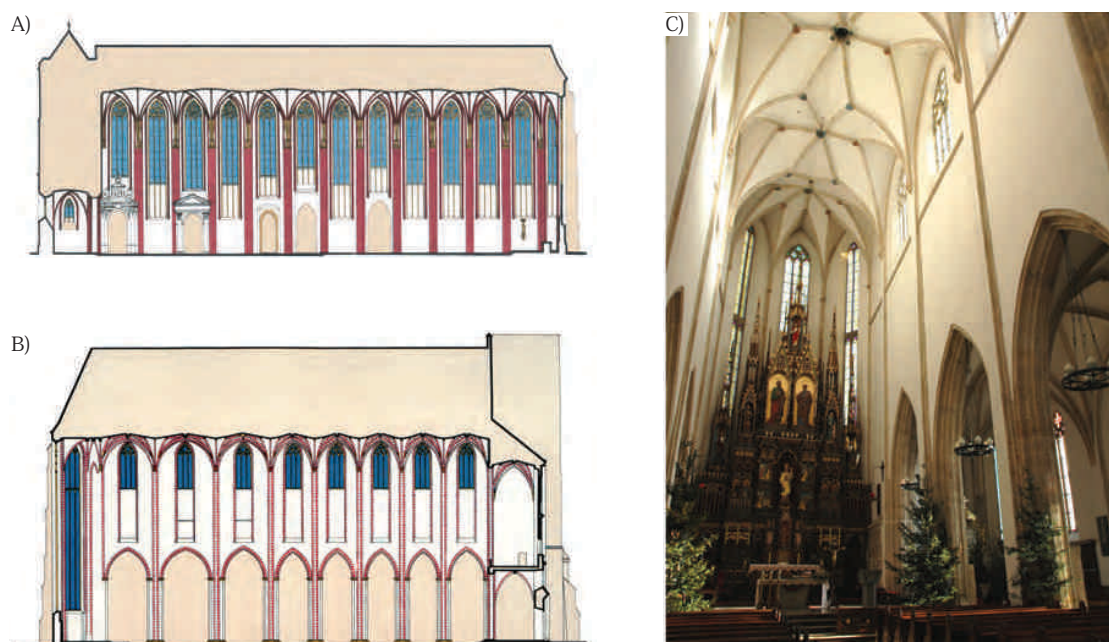


Fig. 2. Internal elevations of churches from the 14th century. A) Wrocław – the Church of the Blessed Virgin Mary on the Sand, longitudinal section by the north nave (by E. Małachowicz), B) Brzeg – the Church of St. Nicholas – longitudinal section (by O. Czerner and E. Małachowicz), C) Strzegom – the Parish Church, interior (photo: H. Golasz-Szołomicka)

Il. 2. Elewacje wewnętrzne kościołów z XIV w. A) Wrocław – kościół NMP na Piasku, przekrój podłużny przez nawę północną (wg E. Małachowicza), B) Brzeg – kościół św. Mikołaja, przekrój podłużny (wg O. Czerner i E. Małachowicza), C) Strzegom – kościół parafialny, wnętrze (fot. H. Golasz-Szołomicka)

Tracery patterns

Windows had wide splayed jambs on both sides. Only in a few structures, the jambs were molded. The patterns of tracery in the upper part of the window can be divided, similarly to the division in the 13th century, into those with central composition and those with several levels, and their arrangement could vary in one elevation. The cross sections of mullions are elongated with double trapezoids and offsets, hollows and sometimes roll moldings, which result in a multi-layered molding. The external

molding elements provide the general shape of tracery (visible in partially walled-up windows, e.g. in Strzegom), and those located deeper render a layered filling in different geometrical shapes. Sometimes the mullions were embellished with roll moldings, especially in very large windows. However, the bases and capitals on roll moldings, which were applied frequently in the 13th century and rarely at the beginning of the 14th century, were no longer used.

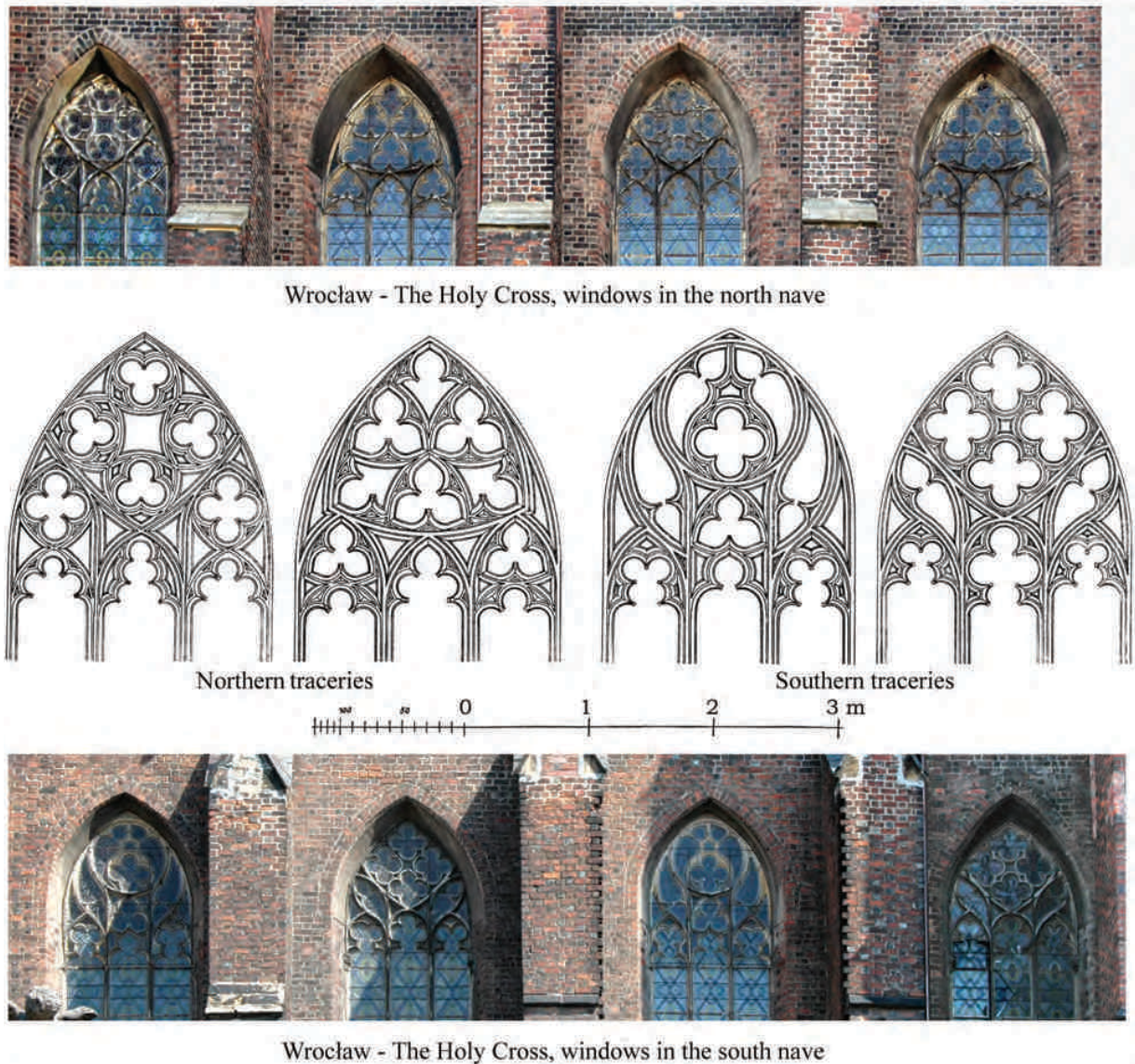


Fig. 3. Wrocław – the Collegiate Church of the Holy Cross, traceries in the nave windows (drawn acc. [11, Taf. 40], photo: H. Golasz-Szołomicka)

Il. 3. Wrocław – kolegiata św. Krzyża, maswerki okien korpusu (rys. wg [11, Taf. 40], fot. H. Golasz-Szołomicka)

In the north elevation of the **Parish Church in Złotoryja** (beginning of the 14th century) [8], there are three windows – two with two lights and one with four lights. The two-light windows have similar patterns with a circle in the middle filled with a circular quatrefoil with a pointed trefoil with a broad lower section above it under a pointed arch. The mullions extend into pointed arches with an inscribed open pointed trefoil. In the wide four-light west window, the main elements in the foreground include two pointed arches and a circle in the upper part of the window with a roll molding in their section. They are internally divided by trapezoidal profiles. The pointed arches connect with the circle and in the upper section they create an ogee. In the large pointed arches, the background is filled by two smaller pointed arches with pointed trefoils and a circle with a circular trefoil. In the central circle, there are five

circles connected with open circular trefoils which have a fleur-de-lis in the middle. The north window in the tower has two lights with a central arrangement in the upper part of the window composed of four open circular trefoils. The mullions extend into two pointed arches, with an open pointed trefoil inside them and a closed circular quatrefoil above them.

In the **Collegiate Church of the Holy Cross in Wrocław**, the four north and south three-light windows have alternate tracery patterns (Fig. 3). In the north elevation, all patterns have central elements in the upper part of the window. In two windows, it is a “curved square” with four circular trefoils inscribed in curved triangles. The other two windows have “curved triangles” with three almond-shaped trefoils in them and almond-and-triangle-shaped forms between them. The mullions in the windows

extend into three pointed arches of different heights with open trefoils and multifoils in them, and closed almond-shaped trefoils, and closed circular quatrefoils above them.

On the south side, the mullions in two windows extend into pointed arches with open “reverse” multifoils, and on the axis – in the middle light – there is a semi-circle with an open quatrefoil. In the upper part of the window, in a curved square, there are four circular quatrefoils. Both sections are completed diagonally with mouchettes. In two other south windows, the mullion in the middle extends into a tall pointed arch filled by a closed almond-shaped trefoil and an open almond-shaped trefoil under it. In the upper part of the window, there is a circle with an inscribed circular quatrefoil and two mouchettes. The other two mouchettes fill the larger circle. The two circles are not concentric but tangential in the upper part, and the larger one is open in the lower middle light.

In the **Dominican Church of St. Adalbert in Wrocław**, in the presbytery (1300–1330) [1], [14], there are tall tracery windows, the largest of which is the east window with three lights. Its slender mullions with goblet-shaped capitals and small bases meet at the top to form trefoils. The upper part of the window is filled with a rosette formed by elongated trefoils closed in pointed arches. Over the rosette, there is a small trefoil formed by open pointed trefoils. Side windows of the polygonal presbytery have extended central patterns. Over two levels of trefoils in pointed arches, there are three circles with quatrefoils arranged radially. The south elevation has five three-light windows with identical tracery patterns (reconstructed), with a concentric arrangement. The middle pointed arch with an open trefoil is topped with a closed trefoil enclosed in a taller pointed arch. Above them, there

is a large circle with a quatrefoil. Above side pointed trefoiled arches, there are smaller circles with trefoils.

The nave of the **Cathedral in Wrocław** has an original walled-up tracery window in the north wall (from the times of Bishop Henryk from Wierzbno 1308–1319) [15]. It is a three-light window with a tall pointed arch in the middle light. Above the pointed arch, there is a circular quatrefoil in a circle, and on the sides, above the side shorter pointed arches, there are similar quatrefoils in a circle, and pointed quatrefoils in a curved square above them. The side pointed arches, similarly to the middle pointed arch, had additional pointed trefoils at the bottom but slightly higher, and there was a pointed trefoil above it. That arrangement resembles the tracery pattern in St. Adalbert’s Church in Wrocław.

The **Cistercian Church in Kamieniec Żąbkowicki** has five tall three-light windows in the south elevation of the nave (1st half of the 14th century) [7], [12]. Three middle windows have identical several-level tracery patterns, and the outermost windows have central compositions in the upper part of the window. In the tracery of the right window, in a large circle, there are six elongated trefoils connected by the central circle. The mullions extend into pointed arches of various heights which is the result of their connection with the circle. An open pointed trefoil is inscribed in the shorter middle pointed arch, and pointed multifoils are inscribed in the taller side pointed arches.

The mullions in the last window on the left side branch into three pointed arches, the one in the middle being slightly taller with inscribed open trefoils. In the middle part, the trefoil is placed slightly lower and there is a closed trefoil above it. Above it, there is a centrally located circle with an inscribed circular cinquefoil, and the trefoils have flattened arches on both sides.

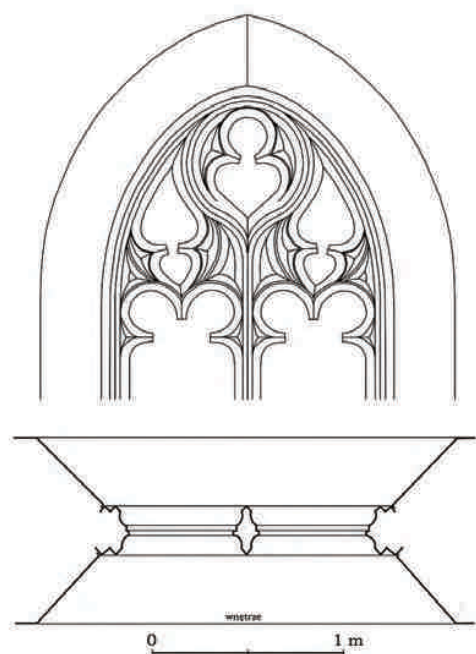


Fig. 4. Głogów – the Collegiate Church, south-west window of the presbytery (by H. Golasz-Szołomicka)

Il. 4. Głogów – kolegiata, południowo-zachodnie okno prezbiterium (rys. i fot. H. Golasz-Szołomicka)

The original tracery which has been preserved in the south window of the presbytery in the **Collegiate Church in Głogów** (1335–1401)¹ was walled up in the Middle Ages [9]. The two-light window has a several-level tracery in a few layers with circular and pointed forms as well as mouchettes (Fig. 4). The mullions with elongated sections with hollows in the shape of sections of a circle are topped with a triangle, the only known case so far. The other windows of the presbytery had no traceries already before World War II. The other windows of the Collegiate Church in Głogów have less complex tracery patterns and sections and it is uncertain whether they are medieval or from the 19th century.

The **Church of the Blessed Virgin Mary on the Sand in Wrocław** has longitudinal elevations with three types of tracery patterns. On the south side, in three east bays, there are three different tracery patterns which further alternate with two other types. On the north side, there are two patterns which repeat twice next to each other. Some windows most probably come from the times of the construction (1334–1386) [1], but the tracery which was moved to the Museum of Architecture in Wrocław surely dates back to those times (Fig. 5). Its central composition includes three joined circles filled with other three joined circles with open circular trefoils inscribed in them. The lower three-light part is topped with three pointed arches of various heights and forms. The side pointed arches are filled with an open circular quatrefoil. The middle pointed arch is connected with the elements of higher circles which caused its upper part to create a slight ogee. It is filled with a reverse trefoil, open from the bottom and connected with an open multifoil, all elements are circular. The composition of that tracery is applied as one of three repeated ones in the south elevation of the church but the open trefoil of the upper window is not consistent with the central radial arrangement which fills the tracery present in the Museum of Architecture.

The second type of tracery also composed of trefoils has a different pattern which should be classified rather as a composition with several levels. In the upper part of the window, there is a curved triangle and two curved squares under it. The triangle is filled with three circular trefoils joined in the middle. There is a pointed quatrefoil with inscribed open trefoils in the square. The mullions extend into three pointed arches. The tallest arch in the middle is filled with a closed pointed trefoil based on an open trefoil. The pointed arches on the sides have open quatrefoils. The third type of tracery has a central pattern – a circle with three whirling lenses. These forms are filled with mouchettes and a pointed quatrefoil in a curved square “in the front”. The lower pointed arches which touch the circle are filled with open trefoils which have pointed and circular forms. The traceries in the middle apse have central patterns. This is a radial pattern² composed of three lenses with the com-

mon middle part filled with a circular trefoil. In each of the lenses, there is a closed circular quatrefoil and two elongated open circular trefoils. Between the lenses, there are pointed arches with a group of trefoils. The lower element is evidently a composition of joined open trefoils with repeated forms under it but open to the bottom. That lower form is also in the upper pointed arches or rather curved triangles. Two side pointed arches springing from mullions are filled with an open quatrefoil connected with the lower open multifoil³.

In the middle windows, the mullions of the side sections extend into a pointed arch with an inscribed open pointed trefoil. A similar trefoil is in the middle section but there is a closed pointed trefoil above it – both enclosed in one common pointed arch which is taller by one level of composition than the side pointed arches above which there are curved triangles with inscribed pointed trefoils, identical with that in the middle but turned by about 30°. The higher level has three pointed arches joining the one in the middle, filled with trefoils with rectangular enclosures. In the upper part of the window, there is a curved square with a pointed quatrefoil.

The **Parish Church in Strzegom** (1335 nave – cir. 1450 east part) has highly decorated tracery windows [2], [19]. The windows in the aisles, the presbytery, and the transept have three lights, and the windows in the nave have four lights. Lower windows were partly surveyed by H. Lutsch [11]. The mullions have trapezoidal cross sections with a narrow rectangular end and one or several offsets. Three of the seven drawn windows do not exist anymore; they were probably walled up (or possibly come from a different church). The patterns of only few traceries are repeated – two in the polygonal east part and east windows in the nave; it is identical in the north and south sides. The traceries with central and several-level patterns have a number of elements in a few planes, which is well visible in the partly walled-up north-east window in the nave. They have circular and pointed trefoils, quatrefoils, and multifoils, both open and closed, as well as combined. The mouchettes complete the basic decorative forms.

The four-light windows in the nave, including those in the background, have profiles with roll moldings. Each of the windows has a different tracery pattern and only two of them have central elements in the upper part of the window.

The **Parish Church in Brzeg** is a three-aisled basilica with a three-aisled presbytery with a three-sided enclosure on the axis and straight walls in the aisles. On the west side, there are two towers; there is a porch and chapels added in the south and north. The construction of the church began with the nave which is dated from 1365–1378, and three east bays of the presbytery were built in 1383–1390 [1]. The church has eight bays with large three-light tracery windows.

¹ The window was discovered during the renovation of the church.

² The pattern is similar to the traceries from the 4th quarter of the 13th century in the Holy Cross Church in Wrocław and the chapel in Racibórz.

³ M. Doroz-Turek [2, p. 93] distinguished four patterns of stone tracery in windows of the Church of the Blessed Virgin Mary on the Sand in Wrocław: “first one composed of circles to form a quatrefoil 0–1, second one – a trefoil 0–2, third one composed of mouchettes 0–3 and the fourth one in the presbytery windows – composed of trefoils and mouchettes”.



Fig. 5. Wrocław – the Church of the Blessed Virgin Mary on the Sand, traceries (photo: H. Golasz-Szołomicka)

Il. 5. Wrocław – kościół NMP na Piasku (fot. H. Golasz-Szołomicka)

Despite different times of the construction of the nave and the presbytery, the traceries in the nave were designed for the whole long south and north elevations. They feature a few patterns repeated in two windows next to each other, corresponding to each other on south and north sides. Looking from the east, they have central patterns with a quatrefoil in a circle and with mouchettes, the three curved triangles filled with pointed trefoils. The next traceries feature a large circular quatrefoil inscribed in a circle, with a mouchette from the bottom, the next window has a tracery pattern repeated from the first two windows. The west window in the south elevation was walled up, whereas the one on the north side has a tracery with a several-level pattern with trefoils and mouchettes.

In the aisles, there are 10 original three-light tracery windows as well as portals in two bays, and the remaining windows were removed during the construction of chapels. The patterns are very complex, with only one of them repeated in different windows on the south and north sides, similar to the first windows in the nave. Most traceries feature central patterns, one has several levels and one is

concentric. The pattern of that last one has three circles with an inscribed quatrefoil arranged in two levels. The middle section of the mullions, which extend into a pointed arch with a trefoil, go high to the upper circle, and two smaller circles surround it from the sides. The several-level pattern has mullions which extend into pointed arches filled with two levels of trefoils and mouchettes, and in the upper part of the window, there is a quatrefoil. The west tracery and east tracery on the south side have the most elaborate forms. The former features four open circular trefoils in a circle, creating the central quatrefoil. The mullions extend into storied trefoils. The east tracery has a circle filled with an open quatrefoil with inscribed trefoils, and a small circle with a trefoil in the middle. Under a large circle, there are two mouchettes which go to pointed arches with trefoils into which the mullions extend.

There are five windows from the east of the church – three in the apse and two in the east walls of the aisles. The windows in the apse are exceptionally tall – their upper part reaches the level of the windows in the nave, and the sills are at the level of the windows of the aisles. That is why the

windows are additionally divided with a bar at the level of the sills of the windows in the nave. The lower part of the mullions extended into pointed arches with inscribed trefoils. The window on the axis of the three-sided apse is the only window with four lights. Above the pairs of pointed arches with trefoils, there are circles with trefoils, and above them – a large circle with a circular quatrefoil filled with open trefoils. The side windows of the apse have traceries with three lights with the same pattern with an octofoil inscribed in a circle and a mouchette from the bottom. The windows in east walls of the aisles also have the same traceries – with a central extended pattern which features four circular quatrefoils in a curved square, two mouchettes and pointed arches of the mullions filled with two levels of circular trefoils, of which the upper side ones are reversed.

The **Parish Church in Świdnica** (at present the cathedral) has an older presbytery (1330–1386, nave – 1360–1375, chapels – 15th century) [1], [4] in which there are two original windows at the end of north aisle. These are three-light windows with mullions extending into pointed arches with inscribed pointed trefoils. Above them in one window, there are three curved triangles with inscribed pointed trefoils on non-radial several levels. In the other window, the middle pointed arch is taller with an additional closed trefoil, and alternately quatrefoils and armorial shields with open trefoils around it. The lower blocks of that tracery are darker than the upper ones, and a large pointed arch is slightly lowered in relation to the profile of the jambs. The first tracery is fitted to the pointed arch but the jambs have traces of rebuilding.

The **Parish Church in Paczków** (1360–1389) [1] has most of its original tracery windows, and only a few of them were walled up. This is a hall church with a long polygonal presbytery, a tower in the north-east corner, and extensions. The windows are tall, rather narrow, with two lights, except for the middle window with three lights in the west elevation. The mullions in the windows extend into pointed and often semicircular arches, filled with circular trefoils. In the upper part of the window, the traceries are very elaborate with central and several-level patterns. In the east window, there is a circular quatrefoil in a circle surrounded by two mouchettes from the bottom. The window on the north side is filled with a square with a large pointed quatrefoil, and a curved triangle filled with three asymmetrically elongated trefoils (in other words three mouchettes are cut concavely from inside). The next windows from the east on the south side of the presbytery do not repeat the pattern from the north side. The upper parts of the first and third windows are filled with a circle with three and four mouchettes. The mullions in the second window extend into pointed arches with slender open pointed trefoils. In the middle above pointed arches, the form of trefoil is repeated but it is surrounded by a circle open from the bottom. There are slender mouchettes on its sides.

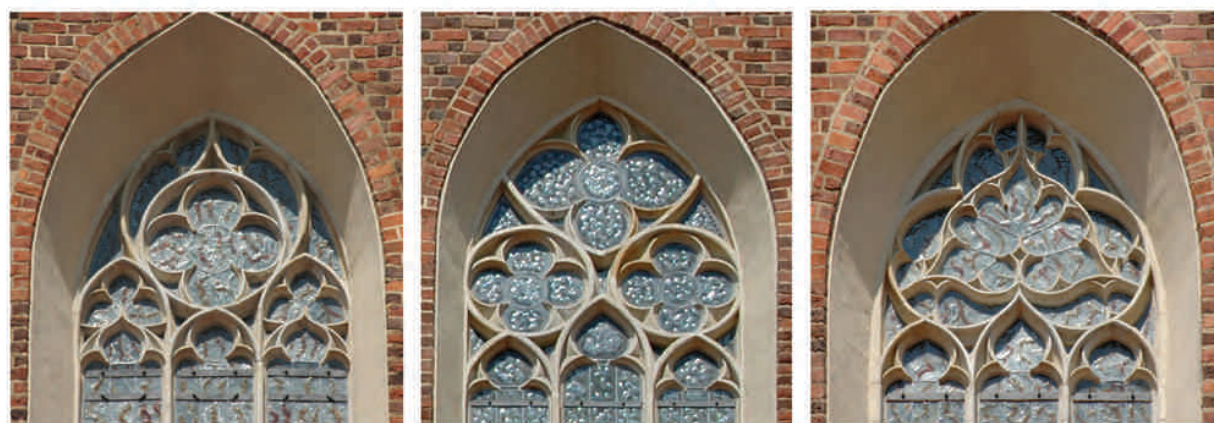
All four windows in the south elevation of the nave in Paczków are original, each with different tracery patterns. The first window from the east has a circle with a circular quatrefoil in the upper part of the window. The next tracery has a large pointed trefoil connected with the middle circle

filled with a pointed trefoil. The next tracery has a small circle with a circular trefoil with two fairly large mouchettes from the top. The mullions in the last window extend into flattened pointed arches with inscribed pointed open trefoils. There are two pointed arches on the axis, one above the other, and asymmetric closed pointed trefoils in the shape similar to an armorial shield on the sides.

The mullions in the three west windows extend into pointed arches filled with open pointed trefoils. In the upper part of the windows, there are traceries with central patterns. In the side two-light windows, this is a pattern with a circle filled with three mouchettes whirling left, and in the middle window, there is a quatrefoil with an internal circle, filled with pointed trefoils, and the whole arrangement is in a curved quatrefoil. There are pointed arches with closed pointed trefoils between bottom pointed arches and a curved square. The bottom part of the window, almost 2/3, is walled-up in the clearance, with the remaining part with three pointed blanks filled with a pointed trefoil.

The **St. Dorothy's Church in Wrocław** [13] has in its presbytery (1351–1381) four types of tracery with three lights, three on each side. In the apse in the middle in the upper part of the window, there are three curved triangles with pointed open trefoil, and three circles with inscribed open circular trefoil on the sides. In the north elevation, the first and third window has three elements in the upper part of the window – two circles with an inscribed trefoil, and above them a pointed trefoil, deformed to fit the shape of the pointed arch. In the second north window above the lower pointed arches with inscribed pointed trefoils, there are two wide pointed arches with similar trefoils, and a form similar to a mouchette in the top but with unusual proportions. On the south side of the presbytery, there are repeated two traceries with circles and wide trefoils, and three curved triangles additionally in a circle in the middle, except for the bottom part. In several traceries, there is a form of pointed arch going in between circles, creating ogival shapes. In the nave (1381 – the beginning of the 15th century), there are six tracery windows on the south side. Two east windows are identical, with two circles in the tracery just like in the presbytery, and a trefoil above them. That tracery is repeated twice, and there are two other ones with patterns composed of three elongated and deformed trefoils between them. The way in which they were made, which is less precise, indicates that they come from the 19th century.

The **Corpus Christi Church in Wrocław** (1366–1410) [13] has ten windows with seven tracery patterns (Fig. 6). The west tracery with four lights has a central pattern with a large circular quatrefoil inscribed in a circle. There are two pointed arches below it with a circle in the middle and two trefoils ogival in shape. The mullions in the remaining three-light windows also extend into trefoils, one of them ogival in shape. Two tracery patterns feature a trefoil in a circle. In one of them, it is surrounded by mouchettes and elongated trefoils; in the other, two circles are topped with an open pointed quatrefoil. In the next central pattern tracery, there is an element with a “quatrefoil” whose two arms are circular and the other



West windows of the south façades



East windows of the south façades



Windows of apse

Fig. 6. Wrocław – the Corpus Christi Church, traceries (photo: H. Golasz-Szolomicka)

Il. 6. Wrocław – kościół Bożego Ciała, maswerki (fot. H. Golasz-Szolomicka)

two pointed ones with a tip. The tracery in the middle window in the south elevation has a lot of small curvilinear elements, resembling a radial pattern.

The **Parish Church of St. Lawrence in Wołów** (the 14th century) [20] has only one tracery window in the sacristy located in the basement of the tower in the north-east corner between the presbytery and the nave. It is a two-light window with a several-level tracery pattern composed of pointed trefoils and quatrefoils.

The **Parish Church in Świerzawa** (presbytery 1381–1382, nave – the 1st half of the 15th century) [20] has a long polygonal presbytery with narrow two-light windows with the same tracery pattern. Their mullions extend into trefoils in a pointed arch and a sexfoil in a circle. The jambs are profiled with two roll moldings and hollows in between them. Some roll moldings built from polygonal brick bars are visible under damaged plaster.

The tall Gothic presbytery was added to the Romanesque nave in the **Parish Church in Środa Śląska** (before 1378–1388) [10]. It is a long three-sided presbytery with tall three-light windows in the south wall and polygonal enclosure. The north windows were walled up. The traceries have different patterns and profiles; they are slightly lowered in relation to the pointed clearance. In the middle tracery of the south window, whose elaborate profiles are the thickest, there is a date – 1891. The south-east tracery with mouchettes has different cross sections, maybe medieval?

The **Parish Church in Ziębice** has a new three-aisled presbytery built in the 2nd half of the 14th century – the beginning of the 14th century [1], [22] on a basilican plan with three polygons from the east in place of its earlier east part. Its aisles are as tall as the main body of the church, and the nave is much taller. Its windows have different sizes: the tallest ones in the polygonal enclosure of the nave have three lights, and those on the axis have four lights. The polygons of the aisles have two-light windows, and the south wall has three windows – two on the sides with three lights and the middle one with two lights. The south windows in the nave are the shortest, four of them have two lights, and one window, the east one, has a single light. The window niches inside are wider and they go lower than the glazed window clearance. The mullions extend into pointed

arches with an inscribed trefoil and a trefoil in a circle in every second tracery above it. The remaining two traceries are filled with mouchettes. The mullions in the windows in the aisle extend into pointed and semicircular arches, and there are central patterns with various forms in the upper part of the window. The tracery of the east four-light window has an extended central pattern with pointed arches. The pattern with mullions which extend into semicircular arches are repeated in the side windows of the polygon of the nave. The tracery of the east four-light window has a central pattern with two levels with open quatrefoils.

The **Parish Church in Nysa** (nave before 1392, presbytery 1423–1430) [1], [5] has exceptionally wide four-light windows in elongated elevations. Their tracery patterns are different, mostly central, which are also present in other churches for instance in the Parish Church in Brzeg. The third window from the west in the south elevation has an exceptional tracery, where the mullions extend into ogival arches which smoothly go into three circles filled with short circular trefoils with heart forms at their ends. The upper level is composed of two similar circles.

The two **west windows** in the **Collegiate Church in Wrocław** and in the **Parish Church in Nysa** feature exquisite six-light traceries with elaborate patterns in the upper part of the windows. It is not, however, certain if the traceries in such large windows are original.

Conclusion

The tracery patterns from the 14th century are more elaborate than those from the 13th century. They can be divided into central patterns, extended central patterns, and several-level patterns. They continue or further develop the compositions from the 13th century [3]. The new elements which appeared in the 14th century include mouchettes, the oldest most probably being the one in the Collegiate Church of the Holy Cross in Wrocław⁴, armorial shields⁵, extensive multifoils, and whirling patterns.

The biggest group is that of **tracery with central patterns**. Their mullions branch into pointed arches with inscribed trefoils and the pattern in the middle with a multifoil enclosed in a circle or three elements arranged radially (Fig. 7). In Złotoryja, open trefoils are connected by fleur-de-lys⁶. The traceries with circular central patterns (Fig. 7A) in the Dominican Church in Wrocław and in Kamieniec Żąbkowicki and Nysa appear in rose windows with twelve, six, and seven elements with a small circle in the middle. In a small window in Świerzawa, there is a sexfoil inscribed in a circle.

The most elaborate radial tracery patterns (Fig. 7B) are in the Church of the Blessed Virgin Mary on the Sand in Wrocław. One of them is composed of three circles with three circular trefoils inscribed in them connected in the middle of the circles and in the middle of the whole pattern. The main element of the other tracery pattern is three elongated almond-shaped forms with two elongated trefoils inscribed in them and a quatrefoil at the end⁷. In other churches, there are radial tracery patterns composed of curved triangles with trefoils. The pattern of the tracery in the Corpus Christi Church in Wrocław is exceptional – a multifoil is inscribed in a circular trefoil with six mouchettes.

The south window in the Church of the Blessed Virgin Mary on the Sand in Wrocław has a whirling tracery pattern (Fig. 7C). Two elongated trefoils inside an almond-shaped form do not extend to the middle as in other cases but their sides join to create a mouchette. In Paczków, three mouchettes whirl inside a circle. The circle in the upper part of the window is also filled with elements of multifoils and mouchettes, creating asymmetric patterns but maintaining their central pattern character due to the mouchettes whirling inside the circle (Fig. 7D).

The main elements of the central tracery pattern also could include open or closed quatrefoils inside a curved square placed diagonally or a circle (Fig. 8). The whirling mouchettes

⁴ Approximately at that time, mouchettes were exploited in the ornate Gothic gable of the west portal in the Church of the Blessed Virgin Mary on the Sand in Wrocław.

⁵ The south-west window of the presbytery of the Collegiate Church of the Holy Cross in Wrocław features the forms similar to an armorial shield filled with an open trefoil.

⁶ **Fleur-de-lys** were applied in the 2nd half of the 13th century in the tracery of east window of the church in Lubiąż.

⁷ That pattern is similar to the window in the presbytery of the Collegiate Church of the Holy Cross in Wrocław [3].




































 A	XIV C. - first half  Zlotoryja	 Zlotoryja	XIV C. - second half  W-w, The Corpus Christi	 Brzeg - nave	 Brzeg-east window					
	 W-w, St. Adalbert	 Kamieniec Z.	 Świerzawa, presb.	 Nysa						
 B	XIV C. - first half  W-w, The Holy Cross	XIV C. - second half  W-w, St. Dorothy				 Brzeg, presb.	 Ziębice, presb.	 Ziębice, presb.		
			 Wrocław, The Blessed Virgin Mary on Sand	 W-w, The Corpus Christi						
 C	XIV C. - second half  W-w, The Blessed Virgin Mary on Sand						 Paczków	 Paczków		
	XIV C. - first half  W-w, The Holy Cross	XIV C. - second half  Wrocław, The Corpus Christi						 Wrocław, The Corpus Christi	 Paczków	 Nysa
 D	XIV C. - second half  Brzeg, nave	 Brzeg, nave	 Brzeg, nave	 Brzeg, east	 Brzeg, presb.	 Brzeg, presb.	 Brzeg, presb.			

Fig. 7. Central tracery patterns (by H. Golasz-Szolomicka)

Il. 7. Maswerki o kompozycji centralnej (oprac. H. Golasz-Szolomicka)

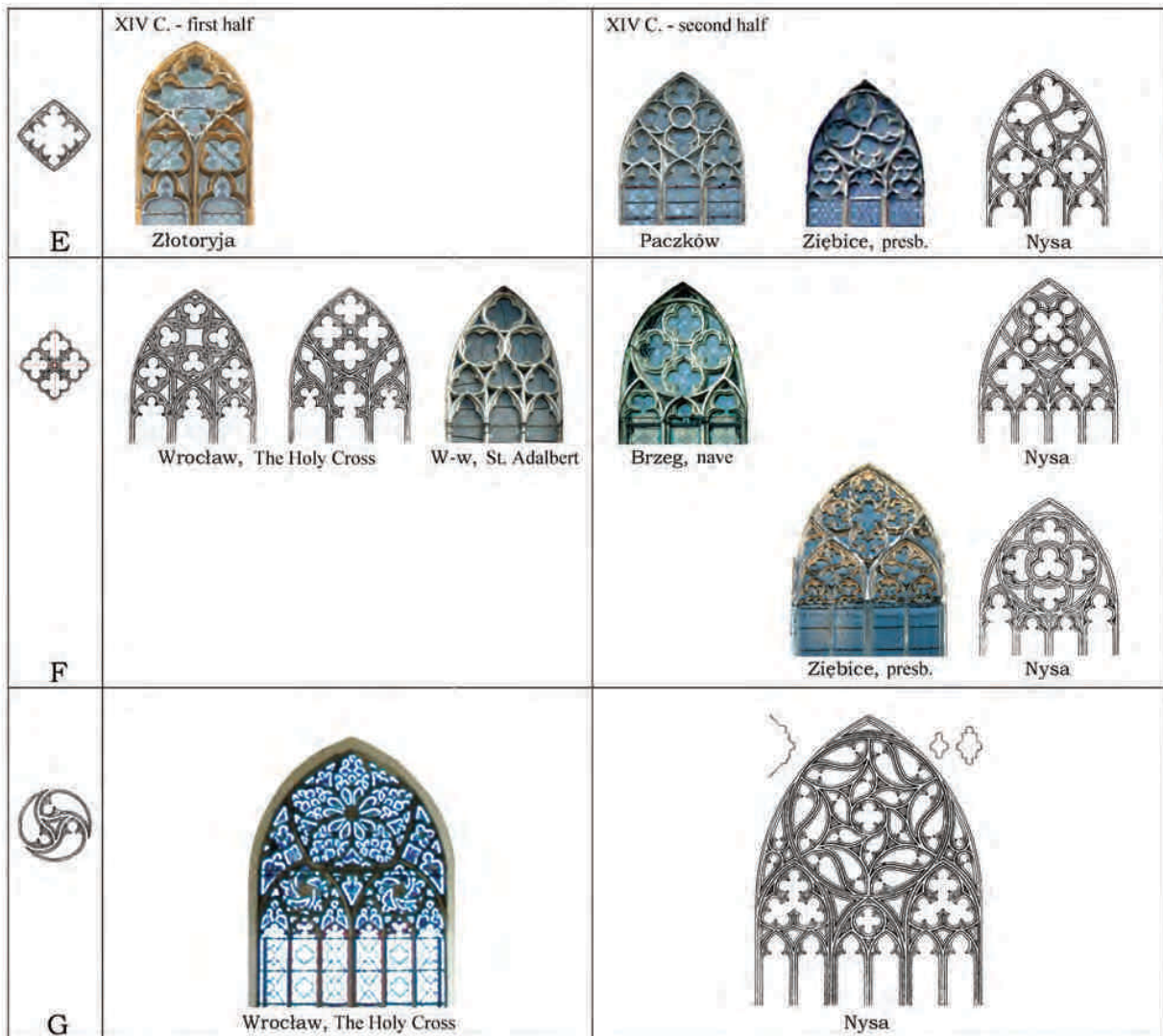


Fig. 8. Extended central tracery patterns (by H. Golasz-Szoolomicka)

II. 8. Maswerki o kompozycji centralnej rozbudowanej (oprac. H. Golasz-Szoolomicka)

could also be inscribed in a curved square. The square was completed underneath with closed trefoils and quatrefoils, as well as trefoils or pointed arches under them with trefoils branching from mullions. In this way the central tracery pattern was enriched with elements on two levels.

Exceptionally extended tracery patterns were applied in the west windows of the Collegiate Church in Wrocław and in Nysa (Fig. 8G). In the Collegiate Church of the Holy Cross, the mullions with larger profiles mark a division into two pointed arches. Each of them is internally divided into three parts with trefoils surrounding a circle with whirling mouchettes. In the upper part of the window, there is a curved pentagon with an inscribed almond-shaped cinquefoil. The window in Nysa is divided into three parts with pointed arches. They are additionally divided internally into two parts with trefoils. Above them in the middle, there is a quatrefoil, and three radially connected trefoils on the sides. The upper part of the tracery is composed of a large circle filled with slender mouchettes whirling in different directions.

The **tracery pattern with several levels** have trefoils inscribed in a circle or in a curved triangle and quatrefoils inscribed in a curved square which were arranged in levels (Fig. 9). The several-level tracery patterns are composed of a few identical or different elements arranged on different levels. For instance all trefoils have the same arrangement, whereas in radial patterns (Fig. 7B) they were adequately reversed. In Głogów (Fig. 9K), the upper mouchette partly goes in between two lower elements, rendering the vertical divisions more evident. It looks similar in the tracery patterns in St. Dorothy's Church in Wrocław where there is a mouchette between open trefoils.

The last type of tracery pattern is the concentric tracery pattern with several levels. In three-light windows, the middle part closed with a pointed arch goes higher than the side parts. Different elements are arranged concentrically around it. That pattern appeared earlier in the east and south-west windows in the presbytery of the Collegiate Church of the Holy Cross in Wrocław [3]. The new ele-




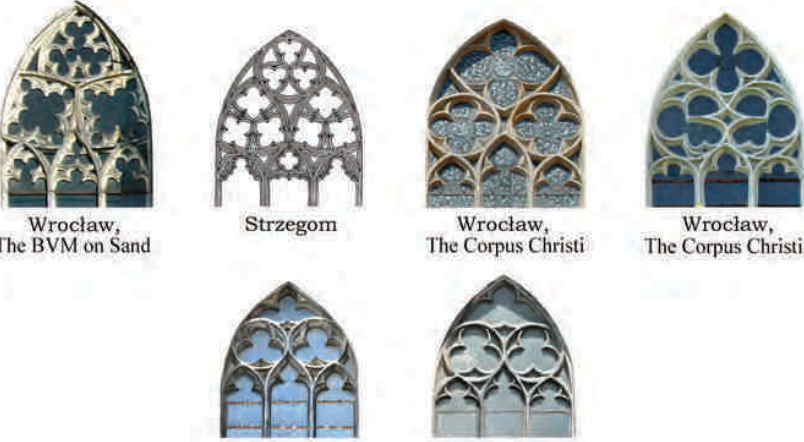









 <p>H</p>	<p>XIV C. - first half</p>	<p>XIV C. - second half</p>  <p>Wrocław, St. Dorothy Brzeg, presb. Nysa Nysa</p>				
 <p>I</p>	<p>XIV C. - first half</p>	<p>XIV C. - second half</p>  <p>Wrocław, The BVM on Sand Strzegom Wrocław, The Corpus Christi Wrocław, The Corpus Christi</p> <p>Wrocław, The Corpus Christi W-w, St. Dorothy, presbytery, north</p>				
 <p>K</p>	<p>XIV C. - first half</p>  <p>Głogów</p>	<p>XIV C. - second half</p>  <p>Paczków W-w, St. Dorothy, presbytery, north Ziębice, presbytery Ziębice, presbytery Środa Śl., par., presbytery</p>				
<p>Several-level tracery patterns</p>						
 <p>L</p>	<p>XIV C. - first half</p>  <p>W-w. St. Adalbert</p>	 <p>Wrocław, The Cathedral</p>	 <p>Kamieniec Ząbkowicki</p>		<p>XIV C. - second half</p>  <p>Świdnica, presb.</p>	
<p>Several-level concentric tracery patterns</p>						

Fig. 9. Several-level tracery patterns (by H. Golasz-Szolomicka)
 Il. 9. Maswerki kilkupoziomowe (oprac. H. Golasz-Szolomicka)

ment in the tracery patterns from the 14th century was the armorial shield with a inscribed open trefoil.
 Each of the tracery patterns features a great variety of forms, shapes, and mutual proportions of their component

elements. Special attention should be drawn to the application of elements of flamboyant Gothic – mouchettes as elements with fluid lines, as well as whirling patterns.

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Maswerkowe okna z XIV wieku na Śląsku

Kościół z XIV wieku otrzymały wysokie okna o rozbudowanych i wielopłaszczyznowych maswerkach. Stanowią one rozwinięcie kompozycji XIII-wiecznej, ale o bardziej złożonych układach. W XIV wieku pojawiły się nowe elementy: rybnie pęcherze, forma tarczy herbowej oraz rozbudowane wieloliście i układy wirujące. Maswerki można podzielić na centralne, centralne rozbudowane i kilkupoziomowe.

Key words: Silesian churches from the 14th century, layout of windows in elevations, tracery with central patterns, extended central patterns, and pattern with several levels

W układzie centralnym i centralnym rozbudowanym w podluczu umieszczano koło, kwadrat, trójkąt wypełniony wieloliściami, rybimi pęcherzami, elementami o układzie promienistym lub wirującym. Maswerki kilkupoziomowe składały się z kół, trójkątów, kwadratów wypełnionych wieloliściami ułożonymi piętrowo. W kompozycji kilkupoziomowej koncentrycznej układano wokół środkowego ostrołuku elementy w układzie koncentrycznym.

Słowa kluczowe: kościoły śląskie z XIV wieku, układ okien w elewacji, maswerki o kompozycji centralnej, maswerki o kompozycji centralnej rozbudowanej, maswerki o kompozycji kilkupoziomowej