

MEDIEVAL HALL CHURCHES IN SILESIA

PART 2. CHURCHES IN THE 14TH C.¹

HANNA KOZACZEWSKA-GOLASZ

Introduction

Years 1268-1290 are the times when the construction of St. Hedwig Chapel in Trzebnica and two hall churches – the Collegiate Church of the Holy Cross in Wrocław and a Cistercian church in Kamieniec Ząbkowicki, were started. St. Hedwig Chapel must have been the first stage of the reconstruction of the Cistercian nuns' church and transforming it into a hall church, it was described as an example of classical gothic, it was also the last building in which a cross-ribbed vault flew onto clusters of attached shafts. The other two hall churches represent a different approach to gothic interiors – attached shafts were given up simultaneously making both churches significantly high. The chancels of the Collegiate Church of the Holy Cross in Wrocław and the Cistercian one in Kamieniec Ząbkowicki became the forerunners of 14th century developed gothic architecture in Silesia, not very appropriately called: the reduced style in Gothic architecture².

In earlier literature related to 14th century churches hall churches are described, however, their spatial design is not characterised in detail. Two churches, namely the Collegiate Church of the Holy Cross in Wrocław and the Church of Virgin Mary on the Sand in Wrocław, deserved a special place among hall churches. An extensive chapter was devoted

to hall churches by H. Lutsch³. H. Tintelnot⁴ listed and described six types of them. Descriptions of hall churches can be found in catalogues of historical monuments written by: S. Kowalski⁵, J. Pilch⁶, in *Katalog zabytków sztuki w Polsce* [*Catalogue of Art Monuments in Poland*]⁷ and in *Architektura gotycka w Polsce* [*Gothic Architecture in Poland*]⁸, where earlier literature is listed with publishing dates. Monographs of the Cistercian church in Kamieniec Ząbkowicki and the Church of St. Dorothy in Wrocław were published by E. Łużyniecka⁹. R. Kaczmarek¹⁰ described sculpture ornaments of 14th century churches and was the first author to describe the influence of Italian sculpture. Hall churches in Wrocław are presented in *Encyklopedii Wrocławia* [*Encyclopaedia of Wrocław*]¹¹. In literature there are significant differences in dating.

In the 14th c. 18 hall churches (Fig. 1) and 15 basilica churches were erected in Silesia, two churches were reconstructed so that they had a hall design, and one was transformed into a pseudo-hall church. The hall churches were mainly parish churches located in towns, the others encompass: two collegiate churches (Wrocław, Głogów), two Franciscan churches, one Cistercian church and two Augustinian ones. Some of them were built by way of reconstructing or developing earlier church buildings or at least using some elements of earlier edifices, however, most often they were new.

¹ The first part of the article was published in "Kwartalnik Architektury i Urbanistyki", 2013, issue 1.

² A reduced Gothic style suggests post-classical, final period.

³ H. Lutsch, *Verzeichnis der Kunstdenkmäler der Provinz Schlesien*, Breslau 1886 – 1902.

⁴ H. Tintelnot, *Die mittelalterliche Baukunst Schlesiens*, Kitzingen 1951, pp. 114 – 144.

⁵ S. Kowalski, *Zabytki środkowego Nadodrza (Katalog architektury i urbanistyki)*, Zielona Góra 1976.

⁶ J. Pilch, *Zabytki architektury Dolnego Śląska*, Wrocław 1978; idem, *Leksykon zabytków architektury Dolnego Śląska*, Warsaw 2005; idem, *Leksykon zabytków architektury Górnego Śląska*, Warsaw 2008.

⁷ *Katalog zabytków sztuki w Polsce*: vol. IV, Województwo wrocławskie (new series), ed. J. Pokora, M. Zlat; vol. VII, Woj. opolskie, ed. T. Chrzanowski, M. Kornecki.

⁸ *Architektura gotycka w Polsce*, ed. T. Mroczko and M. Arszyński, Katalog zabytków, ed. A. Włodarek, Warsaw 1995.

⁹ E. Łużyniecka, *Architektura średniowiecznych klasztorów cysterskich/filiacji lubińskiej*, Wrocław 1995; eadem, *Architektura klasztorów cysterskich. Filie lubińskie i inne cenobia śląskie*, Wrocław 2002; eadem, *Gotyckie świątynie Wrocławia*, Wrocław 1999.

¹⁰ R. Kaczmarek, *Gotycka rzeźba architektoniczna prezbiterium kościoła św. Elżbiety we Wrocławiu*, in: *Z dziejów wielkomejskiej fary. Wrocławski kościół św. Elżbiety w świetle historii i zabytków sztuki*, ed. M. Zlat, Wrocław 1996, pp. 53–73; R. Kaczmarek, *Rzeźba architektoniczna XIV w. we Wrocławiu*, Wrocław 1999.

¹¹ *Encyklopedia Wrocławia*, ed. J. Harasimowicz, Wrocław 2000.

The research encompassed all preserved hall churches within the historical borders of Silesia. After preparing the measurement and photographic documentation of the churches as well as architectural and historical research, it was possible to reconstruct the original appearance of the structures from the 14th c. Research results and reconstructed buildings made the basis for a comparative analysis of projections, spatial systems as well as architectural and sculptural details presented in this article.

Measurement of churches and their details were made by the author and students of the Faculty of Architecture of the Wrocław University of Technology, PhD students and young faculty employees. Existing condition architectural drawing including stratigraphic analysis and church reconstructions were made by the author (except for the drawings signed by another author). The author's photographs were taken in the last few years.

1. Projection and body

In terms of plan and body hall churches can be divided into two groups. The first one encompasses hall churches with lengthened chancels (Fig. 2), in the other one there are churches with other, diverse designs. In the first group of churches there are buildings with chancels closed by a straight wall, erected in the 13th c. In the remaining churches chancels are closed with a polygon – with three or five sides. Polygonal eastern endings appeared in the second half of the 13th c.¹², among the discussed churches the oldest ending of this type can be seen in the parish church in Ząbkowice started in 1290. In the other churches they come from the 14th c.

In the other group there are two collegiate churches, two abbey ones and one parish church, and each of them has a different spatial design with a developed eastern wall. Two churches have three-aisle hall chancels (in Nysa, 15th c.), in two churches there are transepts, and in the third one a sacristy and chapels create a pseudo-transept in the body of the church.

Regardless of solutions used in chancels, these churches were towerless or they had towers (Fig. 2). Two western towers were erected in only three

buildings: in Gubin and Jawor there were towers left from 13th c. churches, and in the Church of Virgin Mary on the Sand in Wrocław, whose construction started 1334, they were erected during the construction of the church. A new solution was a tower located in the northern corner between the chancel and the nave, it occurs in churches in Kozuchów, Paczków, Środa Śl., Wołów and in Wrocław in the Church of St. Dorothy. In the Collegiate Church of the Holy Cross in Wrocław two towers were erected in the corners between the transept and the nave. One western tower was built in Namysłów and most probably also in Głogów. Initially prismatic towers were as high as wall copings or roof ridges over naves and must have been crowned with a wooden structure of a pavilion roof. In the 15th and 16th c. most of towers were heightened.

Initially the basements of towers standing next to chancels were to be used as sacristies, until today they are used in this way in the churches in Wołów, Kozuchów and Paczków. Separate annexes housing sacristies were built in churches with western towers and in towerless ones. They were built at the second stage of church construction and were added to chancels.

The bodies of the nave were covered by one gable roof or three parallel roofs. In the Collegiate Church of the Holy Cross, the roofs over the chancel, transept and the nave together create the shape of a cross, and the roofs over aisles are transverse roofs based on the gable wall. In Kamieniec Ząbkowicki the chancel and transept are covered by one gable roof and lower transept roofs flow under this roof. In Głogów the sacristy and chapels form a pseudo-transept in the church body, it is covered by connected roofs. The width of the pseudo-transept is bigger than that of the chancel and originally it must have been covered by gable roofs parallel to the church axis.

Fourteenth century churches usually had short naves rectangular in plan or slightly elongated, divided into 2 – 4 bays. There are decidedly long naves in the church in Kamieniec Ząbkowicki and the Church of Virgin Mary on the Sand and the Church of St. Dorothy in Wrocław, while in Głogów and Nysa naves are not very long¹³.

¹² The oldest documented polygonal ending is in St. Hedwig Chapel in Trzebnica, it was funded in 1268. The earliest were most probably built in parish churches in Głubczyce and Racibórz in the 3rd quarter of the 13th c., later also in the Collegiate Church of the Holy Cross in Wrocław.

¹³ Three-aisle chancels in Namysłów and Nysa come from the 15th c., we do not know the earlier arrangement of chancels.

From the perspective of hall churches an essential division is related to the nave. The proportion of the nave and its internal divisions, it is possible to divide churches into those which have short naves and those with long naves with rectangular or square bays (Fig. 3–6, Table). Wide square bays with widely spaced pillars make interiors more spacious while short rectangular bays with closely spaced pillars divide an interior into three independent aisles. In seven churches there are rectangular bays in naves and in the remaining ones, there square or close to a square shape. They correspond with square and rectangular longitudinal bays in aisles. In the majority of churches naves are twice as wide as aisles (1 : 1.8 – 1.9). In four churches (Jawor, Głogów, Koźuchów, Ścinawa) the ratio of an aisle to the nave is 1 : 1.6, and in two churches there are exceptionally wide aisles, in the ratio is 1 : 1.34 and in Oleśnica 1 : 1.4.

There are five churches with short naves and rectangular bays, they are located in: Gubin, Koźuchów, Jawor, Wołów and Gliwice (Fig. 3). Three of them were erected at the beginning of the 14th c., in the mid century at the latest. The parish church in Gubin is known from excavations¹⁴. Some elements of this 13th century structure which have been preserved encompass its western elevation with two towers and fragments of the walls of a rectangular chancel, they constituted the first stage of its reconstruction¹⁵. Its significantly wide nave was built in the 14th c. and had closely spaced pillars as well as corresponding buttresses. A preserved northern fragment of a western gable is evidence that the nave was covered by one gable roof.

The parish church in Koźuchów was built by extending and reconstructing a stone church from the 13th c., whose chancel walls and the western wall of the nave have been preserved. At the first

stage a northern corner tower was erected, later, after a fire which took place in 1339, between 1340–1369 the interior of the nave was completely rebuilt¹⁶, it received proportions close to a square and was divided into four short bays. The chancel was extended thanks to a southern nave which was connected to the chancel with arcades cut in the original chancel wall¹⁷. Currently there are baroque vaults which probably replaced gothic ribbed vaults. The nave is covered by three gable roofs.

The bottom part of circumferal walls as well as the chancel and the northern tower of the parish church in Jawor were started in the second half of the 13th c.¹⁸ The elongated chancel is closed with a polygon. Pillars between aisles and the spatial design of the nave come from the beginning of the 14th c. The nave which is quite wide and proportionally short is divided into four short bays. The interior of the church with its rib vaults has been preserved. In the planned elevation with two towers, only one tower, the northern one, is taller than the circumferal wall coping. The southern tower was given up and its western wall was crowned with a triangular gable. Each aisle was covered by a separate gable roof based on triangular gables (Fig. 3).

The parish church in Wołowi¹⁹ received a short, nearly square nave, an elongated chancel ended with a polygon and a tower in the northern corner. Inside there are four short, very high bays (vaulting is baroque). Due to the lack of documentation and baroque reconstruction, it is not possible to determine the time of constructing the church more precisely than by stating that it was built in the 14th c.

The parish church in Gliwice was erected using thirteenth-century chancel and nave walls²⁰. The chancel is elongated, ended with a polygon. Its walls are thicker up to the height of 9.40 m, this is

¹⁴ C. Lasota, J. Rozpędowski, *Rozwój przestrzenny kościoła parafialnego w Gubinie*, Prace Nauk. Instytutu Historii Architektury Sztuki i Techniki Politechniki Wrocławskiej (hereinafter IHASiT. PWr.) Wrocław 1980, No. 13, series Studia i materiały No. 6, pp. 69-72.

¹⁵ The chancel, which possibly dates back to the 3rd quarter of the 13th c., probably did not have any buttresses, according to studies conducted by C. Lasota, J. Rozpędowski in 1970, op. cit. Similarly chancels in Koźuchów and other churches in the northern part of Silesia did not have any buttresses.

¹⁶ C. Walter, *Geschichte der Stadt Freystadt*, Freystadt N/Schl. 1934, p. 65.

¹⁷ S. Kowalski, J. Muszyński, *Koźuchów*, Poznań 1959, thought that the stone church was built in the 14th c. and the preserved hall dates back to the 16th c.

¹⁸ H. Kozaczewska-Golasz, *Halowe budowle sakralne na Śląsku w XIV w.*, Wrocław 1982, MLSP in the IHASiT. PWr. Library; K. Barczyńska, *Architektura sakralna Śląska z lat 1268–1320*, PhD thesis, MLSP 2006.

¹⁹ According to J. Pilch, *Leksykon zabytków architektury Dolnego Śląska...*, p. 404, the church in Wołów was started in 1391 and its vaults were finished in 1408, it was reconstructed in the 18th c.

²⁰ It was mentioned by G. Chmarzyński, *Sztuka górnośląska*, in: *Górny Śląsk*, ed. K. Popiołek, M. Suchodzki, S. Wyslouch, S. Zajchowska, Poznań 1971, p. 95.

the planned height of the walls from the beginning of the 14th c.²¹ The nave is significantly higher – 17.12 m. It has four bays with a western bay longer than the others. The arrangement of buttresses is different on the northern and southern sides, and distances between pillars correspond with northern pillars. The interior is covered by a stellar vault with shortened ribs forming a star outline. It dates back to the second half of the 14th c. or the beginning of the 15th c.²² In the 14th c. the chancel was elevated to the height corresponding with the nave height, and in the 15th c. it was covered by a lamella roof²³. On the northern side of the chancel there was a sacristy and treasury, both erected at the beginning of church construction. In the 15th c. two chapels were added on the eastern side and in 1504 the construction of one western tower was started²⁴.

Rectangular vault bays can be found in two churches with elongated naves (Fig. 4), in the Cistercian church in Kamieniec Ząbkowicki and in the parish church in Nysa. The construction of the church in Kamieniec Ząbkowicki was started in 1272 with the construction of a three-aisle, hall chancel with a rectangular ambit and chapels²⁵. A long transept with a single aisle is connected to a nave with three aisles built in the first half of the 14th c., the proportions of the nave are identical with the proportions of the chancel. The nave is 8.65 m

wide and 23.60 m high, it has exceptionally slender proportions 1 : 2.73. The chancel and the nave are covered by one gable roof, lower transept roofs flow under the chancel roof.

In Nysa a hall nave with three aisles (finished before 1392)²⁶ is exceptionally high – 27.20 m. With the nave width of 9.20 m, the section proportion is 1 : 2.96. Between 1424 – 1430 in the place where there used to be a chancel, most probably with a single nave, the eastern part of the church was built, it had a design of a hall with three aisles and an ambit²⁷. We do not have any information about roofing. It is possible that rib vaulting was used and so it was reconstructed during the latest renovation²⁸. However, a lamella roof cannot be excluded in the nave, if it existed it followed Parler vault in the cathedral in Prague.

In the remaining eleven hall churches from the 14th c., in nave bays have square or near square shaped. In five churches they are covered by stellar vaults with corresponding three-partite vaults in aisles. The churches have various spatial designs in their eastern parts (Fig. 5). The earliest church in this group is the two-level Collegiate Church of the Holy Cross in Wrocław. The lower church, i.e. the Church of St. Bartholomew and the eastern part of the upper church, which were built in 1288 – 1295²⁹, had decisive influence on the height of the

²¹ J. Radzewicz-Winnicki, B. Małusecki, *Średniowieczna architektura kościoła parafialnego Wszystkich Świętych w Gliwicach*, in: "Rocznik Muzeum w Gliwicach", 1999, vol. XIV, pp. 37-51, on the basis of the tracery form of brackets on the eastern, lower part of the chancel, the time of erecting the church was established to have started in the mid 14th c., the elevated platform of the chancel – 15th c., the nave – the second half of the 14th c. or beginning of the 15th c., which must have been before the construction of the tower whose southern portal is dated 1504.

²² G. Chmarzyński, op. cit., dated the church to the second half of the 14th c.; M. Machowski, A. Włodarek, *Gliwice, Kościół parafialny p.w. Wszystkich Świętych*, in: *Architektura gotycka w Polsce*, op. cit., p. 81, claimed that the church was built between the beginning of the 14th c. and the beginning of the 16th c.

²³ G. Chmarzyński, op. cit., described the lamella roof as the Parler style and dated it to the end of the 14th c., while D. Hanulanka, *Sklepienie późnogotyckie na Śląsku*, WTN, Rozprawy Komisji Historii Sztuki, Wrocław 1971, vol. VII, p. 95, dated it to after 1475.

²⁴ The year 1504 is on the southern portal of the tower, it was renovated between 1930 – 1934 during the renovation of the whole church.

²⁵ M. Kutzner, *Cysterska architektura na Śląsku w latach 1200 – 1330*, Toruń 1969, dated the church to about 1300 – mid 14th c. H. Kozaczewska-Golasz, T. Kozaczewski, *Kościół pocysterski*

p.w. N.M. Panny w Kamieńcu Ząbkowickim, Prace Nauk. IHASiT. PWR., Wrocław 1988, No. 19, series Studia i Materiały No. 9, pp. 235 – 276, the construction time of the eastern part with a transept was established to be between 1272 and about 1300, the nave in the mid 14th c.; E. Łuzyniecka, *Architektura średniowiecznych klasztorów...*; E. Łuzyniecka, *Architektura klasztorów cysterskich...*, dated the hall church to the 14th c., and the construction started in 1272 defined as initially a basilica type.

²⁶ M. Kutzner, *Cysterska architektura na Śląsku...*; J. Kęłowski, *Nysa*, seria Śląsk w zabytkach sztuki, Wrocław 1972, pp. 44-60; S. Stulin, A. Włodarek, *Nysa*, in: *Architektura gotycka w Polsce*, op. cit., p. 169.

²⁷ The construction of the chancel was entrusted to Piotr of Ząbkowice, according to A. Kastner, *Geschichte und Beschreibung der Pfarrkirche des heiligen Jacobus*. "Neisser Geschichtsfreund", 1, 1848, pp. 4-9. A different order of constructing elements was suggested by J. Jarzewicz, *O artystycznych i funkcjonalnych uwarunkowaniach architektury kościoła w Nysie*, in: *Sztuka około 1400*, Poznań 1995, pp. 158-160.

²⁸ Information about the fact that in 1542 after a fire a lamella roof was built, not reconstructed, indicated that lamella roofs were not used earlier there, according to A. Kastner, op. cit.

²⁹ The majority of scholars considers the consecration date as the date of consecrating the chancel. R. Kaczmarek, *Rzeźba architektoniczna XIV w....*, reminded that the keystone on the

transept and the nave, erected in the first half of the 14th c.³⁰ The collegiate church with its long chancel ended with a polygon, has a transept ended with a polygon too, and a hall nave on a nearly square plan. The lower church is divided into five rectangular bays which are 7.52 m high. The height of the nave in the upper church is 18.40 m and the width is 8.80 m. Proportions 1 : 2.08 are not very slender, however, the body of the whole two-level church is impressively high – the total height of the lower and upper church outside to the cornice is about 27.50 m.

The basilica church in Namysłów from the 13th c. was reconstructed and transformed into a hall church in the first half of the 14th c. Its walls became higher and stronger thanks to closely spaced buttresses³¹, the reconstruction was completed in the 70's of the 14th c.³² In the first half of the 15th c. its 13th century chancel was transformed into a hall one with three aisles, similar to the main part of the church, in which every aisle ended with a polygon. The nave had three square stellar bays with corresponding four bays of a 5-partite vault on trapeze projections. The height of the nave is 14.35 m, and section proportions are 1 : 2. On the western side there is one tower.

The parish church in Paczków (2nd-3rd quarter of the 14th c.)³³ received a short, nearly square nave with two bays, an elongated chancel ended with a polygon and a tower in the northern corner with a sacristy in the basement. The existing vaulting is

gothic, however, it is rather late so probably it is a replica of the original one. The nave is quite high, 20.86 m, and the proportions of the nave are 1 : 2.37, it is covered by three gable roofs.

A completely new solution for Silesia was used in the Church of Virgin Mary on the Sand in Wrocław in which the eastern part has the shape of a hall with three aisles, where each aisle is ended with a polygon (1334 – 1390)³⁴. The church has six square bays in the nave, half of them are a part of the chancel, which originally was separated by a rood screen and parapet walls in line with pillars³⁵. Each aisle is ended with a polygonal apse, on the western side there are two towers, and on the southern side – a sacristy. The design of the church is exceptional. The building is quite high. The nave is 8.90 m wide and at the same time 23.10 m high, which makes it slender 1 : 2.60. Among the buildings discussed in this work, it is the only church with two western towers from the 14th c., they have buttresses at their sides and no buttresses on their western walls. The body of the church is now covered by a gently sloped gable roof. Using three parallel roofs would allow for a steeper slope like in other churches.

One of the tallest buildings is the Augustinian Church of St. Dorothy in Wrocław (1351 – beginning of the 15th c.)³⁶. Its long nave has five bays covered with a stellar vault, except for the western bay. Square bays in the nave correspond with longi-

crossing of the lower transept was ornamented with the coat of arms of Duchess Mechtylda, who left Poland after her husband Henry IV died in 1290. According to the author of this study, this means that vaults in the transept had been finished before she left. E. Małachowicz, *Wrocławski zamek książęcy i kolegiata św. Krzyża na Ostrowie*, Wrocław 1994; claimed that due to “not very strong ground” the whole perimeter of the foundation and the body of the church were erected together from the very beginning. Also the external walls of the church were probably erected simultaneously and were completed before 1295 as well as the chancel of the upper church.

³⁰ S. Stulin, *Kolegiata p.w. Świętego Krzyża i św. Bartłomieja*, in: *Architektura gotycka w Polsce*, op. cit., pp. 264-265; claimed that the chancel was built in 1320-1330, “using the relics of an earlier building”, and the nave was built in 1340 – 1371.

³¹ The earliest scholars dated this church to the 14th and 15th c. C. Lasota, A. Legendziewicz, *Badania gotyckiej architektury Namysłowa. Kościół parafialny miastolokacyjnego*, “Architectus”, 2005, No. 1–2 (17–18), pp. 21-33, after research established the order of the construction and dated it to the 15th c.

³² D. Hanulanka, *Sklepienie późnogotyckie...*, she dated vaulting in aisles to the 70's of the 14th c. and related their construction to Piotr, a constructor working on the town hall in Namysłów.

³³ T. Chrzanowski dated the church to 1360 – 1389, T. Chrzanowski, M. Kornecki, *Katalog Zabytków Sztuki w Polsce*,

vol. 7, brochure 9. Powiat nyski, Warszawa 1963. According to B. Steinborn the construction was started in 1350. B. Steinborn, *Otmuchów, Paczków*, series *Śląsk w Zabytkach Sztuki*, Wrocław 1982, pp. 151-184. The church was built before 1360 – 1389. S. Stulin, Paczków, in: *Architektura gotycka w Polsce*, op. cit., p. 180

³⁴ S. Stulin, A. Włodarek, *Kościół p.w. Panny Marii, kanoników regularnych*, in: *Architektura gotycka w Polsce*, op. cit., pp. 271, 272; R. Kaczmarek, *Rzeźba architektoniczna XIV w...*

³⁵ O. Czerner, *Chór kapłański i lektorium kościoła NMP we Wrocławiu w XIV w. – Podstawy rekonstrukcji i związane z tym problemy*, “Kwartalnik Architektury i Urbanistyki” (hereinafter “KAIU”), 1965, vol. X, brochure 3-4, pp. 181 – 206; O. Czerner, *Problemy związane z anastylozą lektorium w kościele mariackim we Wrocławiu*, *Zeszyty Nauk. Politechniki Wrocławskiej*, Wrocław 1968, No. 174, *Architektura X*, pp. 3-58.

³⁶ 1251 – foundation of the church and the abbey by Emperor Charles IV, according to L. Burgemeister, G. Grundmann, *Die Kunstdenkmäler der Stadt Breslau*, Breslau 1934, vol. III, p. 107; C. Reisch, *Geschichte des Klosters und der Kirche St. Dorothea in Breslau*, Breslau 1908; H. Kozaczewska-Golasz, *Halowe budowle sakralne na Śląsku w XIV w...*; E. Łużniecka, *Gotyckie świątynie Wrocławia...*

tudinal, rectangular bays in aisles covered by three-partite vaults. The interior is 25 m high, the section proportion of the nave is 1 : 2.72. The church has an elongated ended with a polygon, there is a sacristy on the south and a tower in the northern corner between the nave and the chancel. The body of the church is covered by a gable roof based on triangular gables.

Square bays in the nave can be found in six churches, which are smaller, lower and have an elongated chancel, except for the church in Oleśnica (Fig. 6). In the Franciscan church in Opole³⁷, together with a 13th-century chancel, an eastern wall of the nave was erected, its height reflected that of a hall church³⁸. A hall nave was built at the beginning of the 14th c. using an earlier, high eastern wall³⁹. Later renovations and reconstructions changed the interior, however, distances between pillars, corresponding with the distribution of buttresses, certainly reflects the original design. The nave is elongated. Bays in the nave are nearly square and in aisles they are longitudinal, rectangular. In the 15th c. a tower was built in the northern corner between the nave and the chancel.

In Ząbkowice the construction of a parish church started in 1290 with building a long chancel with a trilateral end, then an elongated nave was built, it was not very wide with widely spaced pillars and corresponding buttresses. Vaulting was built later⁴⁰.

There are similar proportions of the nave plan in the Franciscan church in Środa Śląska. Its pillars and vaults were reconstructed at the end of the 17th c. and the chancel at the beginning of the 20th c.⁴¹ A tower was built in the north-east bay of the nave and one can still see there traces of a rood screen.

The collegiate church in Głogów (1335 – 1401)⁴² was erected using parts of walls and pillars of an earlier church. It is a hall with three aisles and five

bays, there are also side chapels. Its long chancel is ended with a polygon, it is combined with a two-storey sacristy and a chapel of the same height as the nave, which makes it look similar to a transept. The roofs preserved at the beginning of the 20th c. were parallel to nave and chancel roofs. Using a transverse roof, just like over the transept, was impossible because of the significant length of the interior with two bays. The dimensions of the nave are as follows: width 7.15 m and height 15.90 m, which results in not very high section proportions 1 : 2.12. Most probably the collegiate church had one western tower.

At the end of the 14th c. the construction of the parish church in Ścinawa was started, in the 15th century a high chancel was added⁴³. The distribution of pillars and buttresses are not the same, similarly to Namysłów, and the interior is covered by a rib, stellar, 5-partite vault. At the turn of the 15th and 16th c. a large, prismatic tower was built in the western bay of the nave.

The Benedictine church, taken over by the Augustinians, the Church of Virgin Mary in Oleśnica, is an exceptional building. It was built between 1380 – 1390⁴⁴. It is a small church without a chancel, with a tower on the western side which was added later. It is divided into three bays with slightly elongated proportions along the church axis, it is covered by one roof. Vaults were reconstructed in our times, they differ from window outlines.

The described hall churches had naves with three bays differing in plan proportions, height and internal divisions. The height of churches and their proportions vary significantly and they cannot be directly related to the time when they were built. The most outstanding buildings were funded by dukes and abbey churches and among parish churches the churches in Paczków and Nysa.

³⁷ T. Chrzanowski, M. Kordecki, *Sztuka Śląska opolskiego*, Kraków 1974, p. 35; J. Eysymontt, *Architektura pierwszych kościołów franciszkańskich na Śląsku*, in: *Z dziejów sztuki śląskiej*, ed. Z. Świechowski, Warsaw 1978, pp. 68-76; U. Popłonyk, *Opole*, Wrocław-Warszawa-Kraków 1970; *Architektura gotycka w Polsce*, op. cit., p. 177.

³⁸ Wall connections are visible inside the tower.

³⁹ U. Popłonyk, *Opole...*, stated that in the first half of the 14th c. the church was rebuilt and given a hall design which replaced an earlier basilica, the only trace of which is a chancel.

⁴⁰ M. Zlat, *Ząbkowice Śl.*, Wrocław 1970, adopted a view presented in M. Koblitz's chronicle that the church completed in 1330 was not preserved, the existing church was funded by

Charles and was completed in 1415; H. Kozaczewska-Golasz, *Halowe budowle sakralne na Śląsku w XIV w...*

⁴¹ T. Kozaczewski, *Środa Śląska*, Wrocław-Warszawa-Kraków, 1965, pp. 97-104; H. Kozaczewska-Golasz, *Halowe budowle sakralne na Śląsku w XIV w...*

⁴² T. Kozaczewski, *Głogów średniowieczny do końca XIII w. Osadnictwo i architektura*, Głogów 2006.

⁴³ H. Lutsch, op. cit., pp. 648, 649 and J. Pilch, *Leksykon zabytków architektury Dolnego Śląska...*, p. 341, dated the church to the 15th c.

⁴⁴ *Katalog zabytków sztuki w Polsce*, new series, vol. IV, brochure 1, Wrocław Province Woj. wrocławskie, Oleśnica, Bierutów i okolice, ed. J. Pokora and M. Zlat, Warsaw 1983, pp. 58-60. Proportions and the southern portal seem more typical of the 13th c.

2. Construction and vaults

The construction system of hall churches encompasses longitudinal walls between wide and tall windows, it is transversely strengthened by buttresses and pillars between aisles connected by arcades, however, there are no straining arches which were used only in Opole and Środa Śląska in vaults from the 17th and 18th c. In a few churches external walls were limited to sections similar to longitudinal pillars which together with buttresses and pillars between aisles make the frame construction. This system of supporting elements holds vaults which are placed at one level in three aisles (Fig. 3–6). Thrust exerted by vaults was equally distributed on pillars between aisles and walls with brackets. The size of bays is also significant. In the case of rectangular bays in naves and square ones in aisles, the distribution of the frame construction is rather dense. If there are square bays in a nave, in aisles there were elongated, rectangular bays. When naves were wide, spaces between pillars became quite big. In the Collegiate Church of the Holy Cross in Wrocław a new solution was used for the first time, the number of brackets is twice as big as the number of pillars between aisles. The arrangement of brackets was adjusted to the lower Church of St. Bartholomew and then it was continued upwards. In the nave of the upper church bays were transformed into square ones. The correspond with rectangular bays in aisles, each of them has three brackets and two pillars. There is a 5-support vault on these supports, which is also called 3-support or Piast vault. Given the wide bays of the nave, the construction of vaults in aisles, based on external walls with thickly spaced brackets, guarantees the stability of the whole building. The design was copied in a few other churches (Fig. 5).

In none of the churches can one find a uniform arrangement of vaults with the whole nave. Thanks to arcades between aisles and walls based on them, the vaults of particular aisles are independent. Chancels and aisles were covered by cross-ribbed vaults, stellar vaults and 5-partite ones. The vaults

in the nave were reconstructed in Opole, Koźuchów, Ząbkowice, Środa Śląska and Wołów. In Paczków vaults were probably reconstructed in the Medieval Ages, in Oleśnica they were reconstructed in our times and in Głogów and Gubin they were completely destroyed.

Original cross-ribbed vaults from the 14th c. have been preserved in only a few churches (Fig. 7): in Jawor, Kamieniec Ząbkowicki, Ścinawa, in the nave of the lower Church of St. Bartholomew of the Collegiate Church of the Holy Cross in Wrocław⁴⁵ and in the chancel of the Church of St. Dorothy in Wrocław. Vaults in naves were made on a rectangular projection and in aisles most often on nearly square projections. Only in Jawor vault ribs flew on attached shafts on the aisle walls started in the 13th c. In the other buildings they were set high in walls or they were based on brackets.

There are star-vaults in eight churches, in five of them they are used together with 5-support vaults (Fig. 8). Star vaults were most probably used in the Collegiate Church of the Holy Cross in Wrocław for the first time in the second quarter of the 14th c.⁴⁶ There are not diagonal ribs there although they were used in the other buildings, except for the nave in Namysłów. In Gliwice exceptionally three aisles were covered by star-vaults – in the nave. Ribs forming a star do not reach the root of the vault, their ends are higher. The vaults date back to the end of the 14th c. or the beginning of the 15th c.

In five churches with star-vaults, in aisles, which were half the size of naves, there were 5-support vaults which were used for the first time in the Collegiate Church of the Holy Cross in Wrocław (Fig. 9). This means that they were either earlier or contemporary with 5-support bays of the pseudo-transept in Wrocław Cathedral⁴⁷. In the Collegiate Church of the Holy Cross and the Church of Virgin Mary on the Sand 5-support vaults are composed of three triangular bays divided by diagonal ribs, inside there were three ribs joined in the key⁴⁸. In the Church of St. Dorothy in Wrocław a certain simplification was introduced – over side triangles

⁴⁵ These vaults could have been built at the end of the 13th c.

⁴⁶ According to E. Małachowicz, *Wrocławski zamek książęcy...*, p. 170, the nave could have been started at the end of the 13th c. by Wiland.

⁴⁷ E. Małachowicz, *Katedra wrocławska. Dzieje i architektura*, Wrocław 2000, pp. 51, 55, the construction of the transept and covering it with a 3-support vault (it must have followed the

pattern of the eastern bay in the choir of St. Mary's Basilica in Krakow) is attributed to the rule of Bishop Nanker (1326–1341).

⁴⁸ This type of 3-support vault was for the first time called the Piast vault by J. Sas-Zubrzycki, *Sklepienia polskie z doby średniowiecza i odrodzenia*, Miejsce Piastowe 1926, p. 82.

instead of three ribs, there is only one reaching the keystone of diagonal ribs. In Paczków one bay with the smallest number of ribs does not have diagonal ribs, it has three systems of three ribs joined in keys. The remaining bays in aisles in Paczków have more complex arrangements. It is difficult to determine the time when they were created.

In Namysłów and Ścinawa five supporting points on the external wall have four corresponding supporting points in the line of pillars⁴⁹. Because of the different number of supporting elements trapeze bays were made and in Ścinawa there was an additional triangular one (Fig. 10). The middle bay in Namysłów has the design of a 5-support vault without diagonal ribs, just like in Paczków. The outmost trapeze bays have four supporting points and two keystones, in which three ribs are joined. D. Hanulanka considers this bay design as related to the *crazy vaults* in the chancel in Lincoln (1192 – 1210), where bays are rectangular and there is an additional main rib along the nave⁵⁰. The arrangement of bays in Ścinawa is less complicated, there are three bays of a cross-ribbed vault on trapeze projections and one triangular bay with three ribs joined in the key⁵¹.

In the churches with cross vaulting the whole church was covered by a uniform vaulting system, divided into aisles with arches. In the churches with star-vaults in the nave, in aisles 5-support vaults were used more often than cross vaulting. There was a clear differentiation in the articulation of vaulting – symmetrical star-vaults and asymmetrical 5-support ones with doubled division on external walls. D. Hanulanka⁵² paid attention to the fact that 5-support vaults introduced dynamics to interiors. Another step was increasing the dynamics by differentiating the number of buttresses and pillars. In Namysłów and Ścinawa in aisles there were bays with trapeze and triangular projections – undoubtedly it was a planned concept.

A southern porch added at the end of the 14th c. to the Collegiate Church of the Holy Cross in Wrocław was covered by a net-vaulting which was unusual at

that time. It has a barrel shape with a uniform net of ribs which rest on plant-shaped brackets⁵³. The first net-vaultings in Silesia were used in the parish Church of St. Peter and Paul in Legnica (1380 – 1390) and in the chancel of the parish church in Środa Śląska (1388)⁵⁴, which was planned to be a hall one. Vaulting with a uniform net in Silesia preceded the Parler ones which appeared in the 15th c.

3. Interiors

The majority of church interiors consisted of two elements – a chancel and a nave. In only two churches there is a transept. Exceptionally in Głogów and probably in Nysa from the very beginning there were chapels between aisle buttresses. In many churches a sacristy was added at a later stage. Nave interiors are high, well lit, in eleven churches with widely spaced pillars, thanks to which one can see the whole interior (Fig. 12). In seven churches bays in naves are rectangular and pillars are densely spaced, which intensifies the impression that the interior is extremely high and each aisle is separated (Fig. 13). Arcades between aisles are separated into three aisles only in the top vault part.

Interior walls are usually smooth, they are not fragmented, with low windows (Fig. 14). Only in the parish church in Jawor, started in the 2nd half of the 13th c., walls are fragmented with clusters of attached shafts. In two churches – in Namysłów (1st half of the 14th c.) and the Church of Virgin Mary on the Sand in Wrocław (1334 – 1390) there are pilaster strips in aisle walls. In Namysłów, where gothic walls were erected on earlier 13th-century walls, pilaster strips start 5-6 m above the floor, on new, higher walls. In the church in Wrocław the southern wall is fragmented with pilaster strips (in the nave and the chancel), and on the northern side, the later, northern wall was left smooth only with windows. In churches with 5-partite vaults, in aisles the rhythm of windows doubles that of churches with cross-ribbed vaults, which improves the illumination of interiors.

⁴⁹ A similar solution was used in the 2nd and 3rd quarter of the 14th c. in the Corpus Christi Church in Wrocław. According to E. Łużyniecka, *Gotyckie świątynie Wrocławia...*, pp. 37-40, in Wrocław it resulted from a lack of precision in measuring bays.

⁵⁰ Ibidem, fig. III, the sketch of the vault was drawn with a mistake – the main rib was broken twice.

⁵¹ Before building the western tower there was one more trapeze-shaped western bay.

⁵² D. Hanulanka, op. cit.

⁵³ A. Grzybkowski, *Kościół św. Krzyża i św. Bartłomieja*, in: *Encyklopedia Wrocławia*, Wrocław 2000, p. 406, wrongly defined this vault a “Parler” type and dated it to about 1400.

⁵⁴ D. Hanulanka, op. cit., p. 94.

In the Church of St. Dorothy in Wrocław the wall of the southern nave is fragmented with tall window recesses which were elongated to the floor (Fig. 15). Recesses are 0.50 m deep and give walls a strong vertical articulation. A similar solution was used in a polygonal chancel end the church in Paczków.

The collegiate church in Głogów (1335 – 1401) had chapels between aisle buttresses from the very beginning. They open with ogival arcades to the interior, windows in aisles are not very tall because they reach the roof over the chapels. Also in Nysa (the nave was built before 1392) there are chapels between buttresses, however, due to the fact that the interior is very high, windows are high too.

Chancels with one aisle are long and ended with a polygon except for rectangular chancels from the 13th c. in Opole, Kozuchów and Gubin. They are connected to the nave with a tall rood arch and their height is close to the nave height. In the Church of Virgin Mary on the Sand in Wrocław a chancel with three aisles ends with three polygons and its height and width are identical with the nave which is its extension (Fig. 12). The chancel was separated with a rood screen. In addition to this the middle aisle of the chancel was separated from the rest of the interior with parapet walls and left for monks⁵⁵. In the Franciscan church in Środa Śląska the rood screen was located between a tower and a southern extension, which can be seen thanks to the remains of a portal on the first floor of a tower which used to lead to the rood screen platform. In the opinion of E. Łużyniecka, in the Augustinian Church of St. Dorothy in Wrocław the rood screen took the whole width of the nave⁵⁶. However, thin walls, which must be secondary, at the end of aisles and entrances in the western bay of the chancel may be the evidence that the rood screen was located in the western bay of the chancel with a possibility of entering it from both sides⁵⁷.

Interiors of most churches were covered with plaster work from modern times. Only in a few churches, during renovation after the devastations of the 2nd World War, some traces of earlier interior surfaces were found⁵⁸. The conducted research shows that at the beginning of the 14th c. finish was a continuation of the 13th c. style, when there were raw brick walls with white joints. Later some parts of walls were plastered, and architectural and sculptural details were painted. In the Church of Virgin Mary on the Sand in Wrocław the original architectural polychromy of the interior was reproduced (Fig. 17). An element which stands out against the background of smooth, white plastered walls and pillars, are raw brick pilasters on walls and pillars, profiled pillar elements, leading to arcades between aisles and window recesses corners. They create a regular rhythm of white and red vertical bands. Vaults were plastered except for ribs and details whose natural material was left uncovered – it was stone in the nave and brick and stone in aisles. Some sandstone brackets in an aisle and especially in eastern polygonal ends have preserved numerous traces of a colourful polychromy.

4. Elevations

Longitudinal elevations of chancels and naves had similar heights of walls even in churches where chancels were built earlier (Opole, Ząbkowice). Due to width differences, the eastern part had a lower roof when a nave was covered by one roof of significant height. When a nave was covered by three roofs which were appropriately lower, the roof above the nave was a continuation of a chancel roof (Jawor, Paczków, Wołów) (Fig. 16, 17)⁵⁹. In the Collegiate Church of the Holy Cross in Wrocław roofs over the nave, the chancel and the transept form a cross.

⁵⁵ O. Czerner, *Chór kapłański i lektorium...*, pp. 181-206; O. Czerner, *Problemy związane z anastylozą lektorium...*, pp. 3-58.

⁵⁶ E. Łużyniecka, *Gotyckie świątynie Wrocławia...*, pp. 73-103, Fig. 95, 96.

⁵⁷ Such solutions were used in churches in Western Europe and in Silesia it was used in the parish church in Stolec; H. Kozaczewska-Golasz, *Zagadnienie przegród w polskich kościołach parafialnych*, "KAiU", 1980, vol. XXV, brochure 3-4, pp. 191 – 201.

⁵⁸ M. Kilariski, *O właściwą fakturę muru zabytków*, "Ochrona Zabytków", 1955, No. 1, pp. 23-33; E. Małachowicz, *Faktura i polichromia architektoniczna średniowiecznych wnętrz ceglanych na Śląsku*, "KAiU", 1965, tvol. X, brochure 3-4, pp. 207-227; E. Małachowicz, *Problemy konserwacji średniowiecznej*

faktury i polichromii architektonicznej we Wrocławiu, "Ochrona Zabytków", 1965, No. 4; J. Żelbromski, *Architektoniczne polichromie we wnętrzu kościoła św. Marii Magdaleny we Wrocławiu w okresie średniowiecza*, in: *Architektura Wrocławia*, vol. 3, Świątynia, ed. J. Rozpędowski, Wrocław 1997, pp. 78-87; E. Małachowicz, *Faktura i kolorystyka...*, pp. 29-46; E. Łużyniecka, *Kolorystyka i faktura architektury średniowiecznych kościołów cysterskich w Polsce*, "Architectus", No. 1(7), 2000, pp. 19-28.

⁵⁹ In churches with monasteries on the southern side, when the southern elevation was not fully accessible, possible reconstructions of northern elevations were presented: Opole – Franciscan church, Wrocław – Church of Virgin Mary on the Sand An St Dorothy, Środa Śląska – Franciscan church.

Aisles of the church body are covered by transverse roofs with triangular gables (Fig. 18).

The vertical articulation of the elevation is created by thickly spaced buttresses and tall tracery windows. Horizontal divisions are marked by a skirting and a dripstone connected with window downstream aprons. In a few churches the division into bays is not the same along the whole length of an elevation. In Jawor, due to the construction of an elevation with two towers, the western bay connected with it is wider. In a few other churches there were no towers and walls show that there were no plans to do so, however, western bays are traditionally (?) wider – in Opole, Ząbkowice, Koźuchów, Gliwice and Kamieniec Ząbkowicki. Slightly wider bays were built at places where portals were located in the collegiate church in Głogów and in the Church of Virgin Mary on the Sand in Wrocław. In the other churches divisions are the same along the whole elevation, they are composed independently in chancels and naves.

Windows are tall, not very wide in relation to bay length between buttresses. Only the elevation of the church in Kamieniec Ząbkowickim, the Church of Virgin Mary on the Sand and the Church of St. Dorothy in Wrocław and Nysa stand out with their tall and wide windows, which are nearly as wide as the wall between buttresses. All windows in nave elevations were the same size, except for churches in Ścinawa and Gliwice. The middle window in the southern elevation of the church in Ścinawa was wider and shorter (Fig. 17). Under the window there was a portal so the window could not be located sufficiently low. It is possible that widening the window was to compensate for its lower height. It cannot be excluded that the window was to provide more light for an exceptional triangular bay in an aisle. On the window axis there was a pillar. On the northern wall there is no middle window. In Gliwice the western bay of the nave is longer and has a wider window (Fig. 17). Exceptionally narrow and slender windows in the body and the chancel of the church in Paczków. In the group of parish churches this is the second largest church after the church in Nysa (Fig. 17, 19).

In the collegiate church in Głogów the hall nave with three aisles received side chapels thanks to which its elevation resembles basilica design (Fig. 19). A long wall without chapels or divisions has small windows arranged in pairs. Nave buttresses with a few offsets sink into a shed roofs over chapels.

Top tri-partite windows are wide. A similar composition of elevation can be seen in the church in Nysa. Its walls are much taller and proportionally bigger.

Northern elevations were similar to southern ones (Fig. 16, 18, 19). In seven churches they were enriched with sacristies adjacent to chancels, sometimes with the first floor, and towers in the corner between a chancel and a nave – in Koźuchów, Wołów, Paczków and the Church of St. Dorothy in Wrocław (Fig. 18). In the Collegiate Church of the Holy Cross in Wrocław towers are located between the transept and the nave on the southern and northern side.

Western elevations of churches were mainly towerless, towers were erected only in parish churches in Jawor, Namysłów, the Church of Virgin Mary on the Sand in Wrocław and probably in the collegiate church in Głogów. Elevations of towerless churches most often are divided into three parts by buttresses and crowned with one or three gables. Churches in Koźuchów, Paczków and Wołów are covered by three roofs. The Collegiate Church of the Holy Cross in Wrocław has a special arrangement of roofs, there is a two-level elevation covered by a tall roof over the nave and lower transverse roofs over aisles. In the basement there are three small windows and higher there is a large six-partite tracery window on the axis. A gable is decorated with ogival blind windows. Western elevations in the Church of St. Dorothy and in the parish church in Nysa also have ornamented gables.

The only elevation with two towers built in the 14th c. is in the Church of Virgin Mary on the Sand in Wrocław. Initially the towers reached only the height of the nave wall coping. The elevation is significantly widened by buttresses. The wall is smooth without any vertical divisions. On the elevation axis there is a high portal with a wimperg against the background of a rectangular panel and above there is a window. Side parts of the elevation, belonging to towers, are divided by cornices and there are a few windows on tower axes.

An elevation with two towers, whose construction started in Jawor in the 13th c., was not finished, the walls of the southern tower were not increased and a wall was crowned with a triangular gable, just like on the eastern side but without ornaments. The gable above the nave is decorated with blind tracery and crowned with pinnacles. In the bottom part of the elevation there is a portal with pinnacles, earlier crowned with a high wimperg overlapping a rosette, which is a trace of the 13th c. concept.

In the 14th c. in Namysłów one western tower was built on the church axis. Probably there was also one tower in the collegiate church in Głogów and when it collapsed a new one was built in the 19th c., it was detached from a western wall. In a few churches towers were built in the 15th and 16th c. in the northern corner of a chancel and a nave and on the western side.

5. Architectural and sculptural details

Architectural details encompass: pillar components, elements related to vaults – ribs, brackets and keystones, buttress and elevation ornaments, windows and portals. Sculptural ornamentation is usually modest with the exception the parish church in Jawor and the Church of Virgin Mary on the Sand in Wrocław. The majority of sculptures planned in portals have not been preserved and most probably were never made.

Pillars

In churches there are several types of pillars between aisles. Generally they can be divided into equilateral octagonal, cross, rectangular and elongated octagonal pillars. The oldest type with moderate octagonal cross-section can be found in the collegiate church in Głogów. In this gothic collegiate church pillars were built by increasing the height of 13th c. pillars, however, their form was not changed. Pillars had bases but no heads. At the place where they turn into an arcade, three offsets, surrounding the arcade, were made in skew surfaces of pillars. A similar solution was used in the churches in Kozuchów and Nysa (Fig. 20). In Kamieniec Ząbkowicki, contrary to pillars in the chancel, pillars in the nave are octagonal but not equilateral, starting with the second pair of pillars from the east. They are slightly elongated crosswise. Without any separation they extend into a polygonal arcade between aisles. In the parish church in Gliwice profiling of octagonal pillars also smoothly extends into an arcade.

In three churches there are pilaster strips at octagonal pillars (Fig. 20). In the parish church in Ząbkowice Śląskie octagonal pillars, which are slightly elongated crosswise, received additional

pilaster strips with bases flowing to the floor only on the side of the nave. Only offsets on the sides of pilaster strips, as if square attached shafts, are decorated with leaf ornaments. Ogival arcades do not have the same cross-section of pillars but, similarly to the churches in Głogów and Kozuchów, above skew surfaces there are a few offsets. The remains octagonal pillars have been preserved in the church in Gubin. The pillars were slightly elongated longitudinally and had pilaster strips on the side of the nave and aisles⁶⁰. In the church in Jawor pillars are octagonal, slightly elongated along arcades with pilaster strips on the side of aisles. Skew surfaces of octagons received profiling in the form of segmental cavettos. Corners of pilaster strips were hewn and turned into small cavettos. Pillar profiling smoothly extends into arcades and richly decorated brackets support vault ribs.

Cross pillars were erected on crossings of churches with transepts in the Collegiate Church of the Holy Cross in Wrocław from the end of the 13th c. and the beginning of the 14th c. Pillars are not symmetrical, they are slightly elongated along the church axis with bevels at offsets.

Rectangular pillars with pilaster strips ornamented with profiled corners were erected in the nave of the Church of St. Bartholomew in Wrocław and in Ścinawa.

The most common pillars were octagonal longitudinally elongated ones, they can be found in Wrocław in the Collegiate Church of the Holy Cross, the Church of Virgin Mary on the Sand and the Church of St. Dorothy and also in parish churches in Namysłów, Paczków and Wołów (Fig. 21). There are pilaster strips of various widths on longer sides. Elongated octagonal pillars appeared in the third quarter of the 13th c. in Głubczyce and only in the 14th c. they received pilasters. In Namysłów and in the Church of St. Dorothy in Wrocław there are pillars with smooth surfaces and in the other churches there are offsets and cavettos on skew surfaces. Pilaster strips on longer sides, which are elements of pillars, do not have counterparts on walls except for the Church of Virgin Mary on the Sand in Wrocław, where there are pilaster strips only on the southern wall of the nave⁶¹.

⁶⁰ Pilaster strips were not connected with straining arches, as it was thought by M. Małachowicz, *Badania architektoniczne fary gubińskiej w 2008 r. Stan badań fary gubińskiej*, in: *Lubuskie materiały konserwatorskie*, vol. 5, Zielona Góra 2008, pp. 54 – 61.

⁶¹ In the church in Jawor aisle walls are fragmented with clusters of attached shafts which are a continuation of the 13th-century fragmentation. The attached shafts turn directly into ribs which are based on brackets on the side of pillars.

Ribs, vault brackets and keystones

In the discussed churches there are cross, stellar and 5-partite (3-partite) vaults. There are ribs with a variety of cross sections and mounting methods on walls and pillars. In keys there were keystones or stone rings.

A characteristic feature of ribs in the 13th c. were roll mouldings ribs or ribs with nibs turning into cavettos. Such ribs can be found in the chancels and the nave of the church in Jawor⁶² and in the nave of the church in Złotoryja. In the nave of the church in Namysłów each rib received one cavetto and a roll with a wide nib. In the southern nave in Jawor from the 1st quarter of the 14th c. instead of rolls ribs received trapeze-shaped ends. Earlier a trapeze shape cross section was used in the chancel of the church in Grodków in the 2nd half of the 13th c. However, the trapeze shape was different there than in Jawor – it is short and wide. A similar cross section of ribs was used in the Church of St. Dorothy and in the nave of the church in Ścinawa, however, proportions are slightly different.

Ribs with double cavettos, straight bevelled at the bottom, were first used in the chancel and the transept of the Church of St. Bartholomew in Wrocław before 1290. This type of cross section became characteristic for 14th-century vaults and was used in the nave of the churches in Gubin and Gliwice⁶³. In the nave in Kamieniec Ząbkowicki double cavettos are cut deeper and the lower narrow part forms a nib. From the first to the third quarter of the 14th c. in hall churches ribs with single cavettos with a roll or a trapeze shaped end were used in parallel with double cavetto ribs. The last quarter of the 14th c. was the time of return to the forms used at the end of the 13th c. – enriched single cavetto forms with a roll with a nib, like in the Church of Virgin Mary on the Sand in Wrocław, rectangular profiles with bevelled cornerstones which received more slender proportions than at the end of the 13th c., like in the nave of the Church of St. Dorothy.

In six churches ribs flowing on walls end without brackets. In the church in Kamieniec Ząbkowicki, the Church of St. Bartholomew and the chancel of the Collegiate Church of the Holy Cross in Wrocław

the bottom part of ribs is refracted at an angle and the ribs penetrate into walls (Fig. 22). In Paczków and Gliwice they end laterally above a concave profile of a blind arch, while in Namysłów on side walls ribs were cut laterally without any finish. In the other churches there vault brackets. They received geometric forms, most often polygons, usually they were decorated with architectural ornaments – plant forms, masks and sculptures (Fig. 23, 24). In the Church of Virgin Mary on the Sand in Wrocław sculptures on pillars in the nave were to complement other sculpture ornaments in this church. They were supported on plant shaped ornamented bases, there were also high canopies. Existing sculptures come from the 20th c.

Ribs in the key were connected with a keystone or a ring. In the south nave in Jawor there are hanging keystones with geometric or plant ornaments and sculptures. In other churches there are bossed keystone in the form of an escutcheon or in any other shape depending on painted ornaments and reliefs used in given church. They were decorated with plant ornaments, masks and figures, originally they were covered with polychrome.

Windows

In most churches there are big hopper windows, in two churches there are bar tracery windows and in nine churches there is stone tracery with rich composition in the head of windows. Due to numerous wars and catastrophes original tracery has been preserved in only some windows, some tracery was renovated in the 19th c. and at the beginning of the 20th c. Unfortunately the preservation level and time when they were made can hardly be determined.

Windows in one elevation received various tracery forms which could be repeated in every other window (Wrocław – the Collegiate Church of the Holy Cross), repeated in pairs (Wrocław – the Church of Virgin Mary on the Sand), composed symmetrically to the elevation axis (Kamieniec Ząbkowicki, Wrocław – the Church of St. Dorothy, the northern elevation of the chancel) or diversified in various ways (Paczków, Ścinawa, Nysa). Tracery windows in eight 14th-century churches and in the

⁶² In the church in Jawor there four types of rib cross-sections know from the 13th c. Figures showing rib cross-sections were presented by K. Barczyńska, op. cit., p. 48. According to her ribs were made between 1280 – 1300 in the chancel and between

1300 – 1320 in the nave, she emphasised early origins of rib forms in the northern aisle.

⁶³ In Gliwice ribs are in a lapidarium in a room on the fourth floor of a tower. In the existing vaults in the church there are two cavetto ribs.

hall church in Złotoryja, completed at the beginning of the 14th c., can be divided with regard to their composition into: central, centrally developed and multilevel ones⁶⁴. They are a continuation or development of 13th-century composition⁶⁵. Among new elements which appeared in the 14th c. were: vesicae piscis, which first occurred in the Collegiate Church of the Holy Cross in Wrocław⁶⁶, “inverted” multifoil and escutcheon forms⁶⁷.

Portals

In eleven hall churches 14th-century portals of various functions sizes and compositions have been preserved. One portal leads to a sacristy (Paczków), three to towers (Wrocław – the Collegiate Church of the Holy Cross and Virgin Mary on the Sand), the others to a chancel or a nave. Except for two double-arm portals in Paczków and the Collegiate Church of the Holy Cross in Wrocław, all the other portals are ogival.

Portals have jambs with finely profiled roll mouldings and cavettos with an offset cross section, which is half open or polygonally broken. The way the projection was fragmented had significant influence on portal appearance. Both concave and convex projections were used (circular, pear-shaped with nibs, elliptical, polygonal), they had additional roll mouldings and offsets. Although particular elements were rather small, there was a tremendous variety of cross sections. Profiles were not always symmetrical, which led larger or smaller numbers of vertical lines. Used profiles were of various sizes, sometimes they became smaller towards an entrance and thanks to this the optical illusion of a much deeper portal was achieved.

In terms of composition portals can be divided into the following types⁶⁸:

1. jamb,
2. with offset and fragmented jambs,

3. with offset and fragmented jambs in rectangular frames,
4. with offset and fragmented jambs with additional colonnettes,
5. with offset and fragmented jambs with pinnacles on sides,
6. developed portals.

Numerous portals except for architectural ornaments also had sculptural decorations in the form of masks in the key, figures under canopies (they have not been preserved), sculptures with an archivolt in brackets. In two portals original figural tympana have been preserved.

6. Hall churches versus basilica churches

In Silesia 16 basilica churches erected or started in the 14th c. have been preserved (Fig. 54). They are mainly parish churches and there are only two abbey churches – a Cistercian church in Lubiąż and a Johannite church in Wrocław, dedicated as Corpus Christi. The Church of St. Elizabeth in Wrocław is the one whose construction started the earliest, in 1309⁶⁹, later from 1330 the construction of the second parish church in Wrocław, the Church of St. Mary Magdalene, was started, as well as the parish church in Świdnica, the nave of the Cistercian church in Lubiąż, and from 1335 – the parish church in Strzegom⁷⁰. At the same time the construction of the nave of the cathedral in Wrocław, which had begun at the end of the 13th c., was continued.⁷¹ Then more churches were built in the second half of the 14th c. Most of 14th-century had a basilica design with three aisles and a basilica chancel also with three aisles. Five churches had chancels with a single aisle, one of these chancels is rectangular and the others are polygonal. The churches in which there were chancels with three aisles had various types of

⁶⁴ H. Golasz-Szołomicka, *Okna maswerkowe z XIV w. na Śląsku*, “Architectus”, 2012, No. 1 (31).

⁶⁵ H. Golasz-Szołomicka, *Longitudinal tracery Windows In Silesian churches from the second half the 13th century*, “Architectus”, 2010, No. 1 (27), pp. 15-22.

⁶⁶ At more or less the same time vesicae piscis were used in a wimperg of the western portal of the Church of Virgin Mary on the Sand in Wrocław.

⁶⁷ In the south-west of the Collegiate Church of the Holy Cross there are forms similar to an escutcheon filled with open trefoil.

⁶⁸ H. Kozaczewska-Golasz, A. Bernaś, *Portale czternastowieczne w kościołach śląskich*, “KAiU”, 2010, vol. LV, brochure 1 – 2, pp. 53-74; H. Kozaczewska-Golasz, A. Bernaś, *Portale cz-*

ternastowieczne w kościołach śląskich, detale architektoniczne i rzeźbiarskie, “KAiU”, 2010, vol. LV, brochure 1–2, pp. 75-92.

⁶⁹ M. Kutzner, *Kościół bazylikowy w miastach śląskich XIV wieku*, in: *Sztuka i ideologia XIV wieku*, ed. P. Skubiszewski, Warsaw 1975, pp. 275-316; *Kościół św. Elżbiety we Wrocławiu na tle śląskiej szkoły architektonicznej XIV w.*, in: *Z dziejów wielkomiejskiej fary. Wrocławski kościół św. Elżbiety w świetle historii i zabytków sztuki*, ed. M. Zlat, Wrocław 1996, pp. 19-52.

⁷⁰ The dates of basilica churches were accepted according to *Architektura gotycka w Polsce...*; E. Łużyniecka, *Architektura średniowiecznych klasztorów...*

⁷¹ E. Małachowicz, *Katedra wrocławska...*

ends on the eastern side: a straight wall along the whole width, three polygons and a polygon in the middle accompanied with straight walls in aisles. In churches with a chancel with a single aisle, eastern walls of aisles had rectangular ends.

There transepts in only three basilicas in Strzegom and Lubiąż, and in the cathedral in Wrocław there is a pseudo-transept. Buildings had one or two towers, and abbey churches were towerless (Fig. 54). There were two western towers in seven churches and one western tower on the building axis in two churches. In three churches there was one western tower which was situated asymmetrically, and only in Oleśnica a tower is located in the corner between a chancel and a nave.

In the interiors of basilica churches the nave is wider than aisles and their proportions are vary, from small proportions 1:2 to 1:1.5 in Jelenia Góra and Świdnica 1:3 in Brzeg. Bays in naves are rectangular, except for square bays in the chancel of the Church of St. Mary Magdalene in Wrocław. In aisles there are corresponding rectangular bays of 5-partite vaults. In Lubiąż a stellar vault covers two transept bays. On the crossing there is a stellar vault on a square projection without diagonal ribs, and in the northern transept arm of this building a stellar vault was used on a rectangle with diagonal ribs. In the other churches in aisles there are square bays, most often with a cross-ribbed vault, only in Chojnów and Kłodzko there are stellar vaults without diagonal ribs. In the 14th c. not many vaults were made, this refers mainly to aisle vaults, and in naves they were often made only in the 15th and 16th c. Only in a few churches in Wrocław, Lubiąż and Świdnica naves were covered with vaults in the 14th c.

Spatial designs and interior divisions in basilicas were different from solutions used in hall churches. In basilicas a chancel with three aisles appeared quite early (Świdnica, a chancel from 1330 ended with three polygons) and it was used in the majority of churches with various ends in the eastern part. However, in hall churches, except for a rectangular chancel with three aisles in Kamieniec Ząbkowicki, started in 1272, all the other churches had chancels with a single aisle until the Church of Virgin Mary on the Sand in Wrocław was built, its chancel must have been started in 1364 (Fig. 2).

A transept was rare – in tow basilica churches, in Strzegom and Lubiąż, and in two hall churches, in the Cistercian church in Kamieniec Ząbkowicki and in the collegiate church in Wrocław.

Traditionally in basilicas there were two western towers, sometimes only one, and exceptionally there was a tower in the northern corner between a chancel and a nave. Whereas in hall churches the last of the above mentioned designs can be considered characteristic for the 14th c., towers in the north-east corners were erected in five churches.

Nave widths in basilicas and halls have various proportions, however, everywhere the nave is significantly wider than aisles, proportions used in basilicas are as follows: from 1:2 to 1:1.45, and in halls from 1:1.9 to 1:1.4⁷². In basilicas rectangular bays prevail, while in halls in half of the churches square bays were used in naves with corresponding rectangular bays in aisles. They were mainly covered by stellar 5-partite vaults. Such connection of vaults was used only once in a basilica church, in the chancel of the Church of St. Mary Magdalene in Wrocław. The naves of basilica churches received a clear vertical articulation with pilaster strips between which there were windows in the top part of walls (Fig. 26). Only in Brzeg window niches were elongated downwards and ended above arcades (Fig. 27). Pilaster strips between arcades and windows on long, smooth wall surfaces give interiors a favourable vertical articulation. In the aisles of basilica churches, pilaster strips are more visible, they are located on pillars and often also on external walls. In hall churches pilaster strips in naves stretch along the whole height are elements of pillars, in aisles it is the same. However, walls in aisles are left without any divisions, there are only low windows. Pilaster strips are used only exceptionally in the Church of Virgin Mary on the Sand in Wrocław (Fig. 14). Now in plastered interiors of basilicas, pilaster strips are not so easily visible. One may assume, however, that, similarly to hall churches, colour solutions were used to emphasise the vertical articulation.

Lighting in basilicas and halls was very much different from each other. In basilicas a long, high nave was lit especially in its upper part, as there were windows (Fig. 26). Looking from the nave,

⁷² The term hall on a basilica projection, used in the literature, in the case of Silesian churches is not appropriate. Most of hall churches have a nave which is nearly twice as wide as aisles and

it is a hall projection. The size of bays also plays a significant role.

aisles seemed not to have enough light, there were low, separate spaces. In hall churches light would get inside through tall aisle windows and it distributed in the whole church evenly, thus making a church look wider and higher. Pillars did not form any significant divisions, especially in churches with square bays in naves (Fig. 12).

Architectural and sculptural details in both types of buildings are varied, similar decorative and composition elements are used in brackets, tracery⁷³ and portals⁷⁴. These are mainly geometrical forms but there are also plant forms and sculptural details such as heads and busts, whole figures were less common.

Hall church bodies have three high aisles. Their heights reach about 23 m in Wrocław in the Church of Virgin Mary on the Sand, 25 m in the Church of St. Dorothy and 27 m in Nysa at the end of the 14th c. Basilicas built in the 14th c. had chancels with three aisles extending into a nave with three aisles. Their bodies are dominated by naves which are over twice as high as aisles. The nave height and proportions in the Church of St. Mary Magdalene in Wrocław are similar to those of hall churches – with a width of 9.20 m and a height of 24.90 m⁷⁵ the proportions are 1 : 2.7. In Strzegom with a width of 8.96 m and a height of 25.87 m the proportions are 1 : 2.89, and in Świdnica with a width of 10.00 m and a height of about 28.50 m (before lowering the vault) the proportions are 1 : 2.85. A significantly nave was built in the Church of St. Elizabeth in Wrocław, with a width of 9.80 and a height of 29.44 (up to the keystone) the cross section proportions are 1 : 3. Only the church in Nysa can be compared with the highest basilica churches in terms of height, it is 27.20 m high and its proportions are 1 : 2.96. There is a very high nave in the basilica church of St. Nicholas in Brzeg, thanks to its height which is 28.10 m and nave width – 7.70 m, the church has the most slender cross section proportions 1 : 3.65.

In churches with a chancel with a single aisle the eastern part was separated with a rood arch. In churches with chancels with three aisles both spaces were joined together, however, in basilica churches sometimes there was slightly market rood arcade.

The bodies of hall churches were covered by one or three roofs. External walls were divided by

buttresses with a few setoffs. There were wide, low windows. In basilicas nave and aisle walls were supported on brackets with flying buttresses which were hidden under roofs or clearly visible. Windows were not as high as in hall churches but there were two rows of them and they gave light directly to the nave and aisles. In basilica churches dominant characteristics were height and slender proportions of the nave emphasises in interiors by rhythmical pilaster strips, while in hall churches – height and spaciousness of interiors with three aisles divided by slender, profiled pillars crowned with decorative stellar 5-partite vaults.

Summary

Hall churches built in the 14th c. in the historical area of Silesia differed in the spatial design of both their body and interiors, size as well as architectural and sculptural details. Only one out of three churches started about 1270, St. Hedwig Chapel in Trzebnica, represented a classical gothic style in its interior. In two other churches – the Collegiate Church of the Holy Cross in Wrocław and the Cistercian church in Kamieniec Ząbkowicki, new interior forms were adopted. According to these new rules used later in Silesian churches in the 14th c., attached shafts were given up and wall were left smooth. From among all 14th-century buildings, two churches erected in Wrocław stand out: the Collegiate Church of the Holy Cross with its cross plan and two towers and the Church of Virgin Mary on the Sand with a chancel with three aisles and the Church of St. Dorothy with an elongated chancel and one tower in the northern corner between the chancel and the nave. The Cistercian church in Kamieniec Ząbkowicki is built on a Latin cross plan and has a rectangular chancel with three aisles. The collegiate church in Głogów received a developed spatial design with original chapels on both sides of its long chancel and chapels originally built between buttresses of the nave for the first time. On the western side probably there was one tower. The Cistercian church in Kamieniec Ząbkowicki and the parish church in Nysa attract attention with their impressive height.

⁷³ H. Golasz-Szołomicka, *Okna maswerkowe z XIV w. na Śląsku*, "Architectus", 2012, No. 1 (31).

⁷⁴ H. Kozaczewska-Golasz, A. Bernaś, *Portale czternastowieczne...*, pp. 53-74; H. Kozaczewska-Golasz, A. Bernaś, *Portale*

czternastowieczne w kościołach śląskich, detale architektoniczne i rzeźbiarskie, pp. 75-92.

⁷⁵ Basilica dimensions according to the author's measurements.

Other hall, parish and Franciscan churches received not very elongated naves with long chancels ended with a polygon or a rectangle (they came from the 13th c.). In eight of them there are towers (Fig. 2). In the 14th c. in Silesia two new types of hallchurches were developed – one with an elongated chancel and a tower located asymmetrically in the corner between a chancel and nave and the other with a hall chancel with three aisles which was an extension of the nave and ended with three polygons on the eastern side (Fig. 28).

Fourteenth century hall churches in Silesia were high, spacious and well lit buildings. Their constructors gave the classical system of vaults with ribs flowing to clusters of attached shafts. Ribs were set in walls or based on brackets in the top part of walls (Fig. 22 – 24). Smooth walls with high tracery windows contribute to the impression of enlarged aisles. Octagonal pillars between aisles, sometimes decorated with pilaster strips, emphasise vertical articulation. Some suggest that elongated octagonal pillars with pilaster strips look as if they were not cut in masonry. Vertical lines of polygon corners, profiled skew surfaces and pilaster strips make them slender and their significant length does not matter. They were used in churches with square bays in naves where pillars were widely spaced.

The genesis of spatial designs and architectural and sculptural ornaments in 14th-century churches was sought after in Germany, Austria and particularly in Czech. Silesia was divided into numerous duchies from 1328 and then gradually became more and more influenced by John of Luxembourg to whom Silesian dukes had to pay fiefdom. However, this did not result in quick cultural influence of Czech and indirectly also Austria.

Most of Austrian hall churches have three aisles of similar width⁷⁶, which did not take place in 14th-century Silesian churches. The first hall design in Austria was the chancel of a Cistercian church in Heiligenkreuz, finished in 1295. Cross vaults flew to square pillars located diagonally with attached shafts on corners. Attached shafts on side walls end with brackets at the level of window sills. Interior design and architectural details are different from those used in Silesia. The church in Kamieniec Żąbkowicki was compared with the Cistercian church

in Heiligenkreuz. The only elements connecting the buildings are rectangular chancel ends and tall tracery windows.

The two-level Collegiate Church of the Holy Cross in Wrocław with a chancel and a long transept ended with a polygon is compared to the Church of St. Elizabeth in Marburg (1235 – 1283). It differs from the church in Germany in the proportions of a trikonchos design, a square body and towers located in corners between the transept and the nave and not traditionally on the western side. In both churches there are similar transverse roofs over aisle which in Wrocław are based on decorative gables. However, different solutions were used in interiors – in Marburg there are pillars with attached shafts and in Wrocław in the lower church of St. Bartholomew – rectangular pillars with offsets and pilaster strips, while in the upper church instead of offsets there is profiling gave pillars a cross section close to an elongated octagon with pilaster strips.

Two traditional western towers were erected only in the Church of Virgin Mary on the Sand in Wrocław. In parish churches in Gubin and Jawor two western towers came from the 13th c. In four churches there was one tower in the corner between a chancel and a nave. In Koźuchów there is the oldest such tower from the end of the 13th c. The body of the church with an asymmetric tower became characteristic for Silesian churches from the 14th c. (Fig. 28).

In the northern part of Silesia, which was close to the Margraviate of Brandenburg, there were single western towers which followed the designs used in Brandenburg⁷⁷, however, single western towers were erected also in areas located further away, e.g. in Głogów and Namysłów.

An exceptional solution are two towers on the eastern side of a church, next to a transept, ascending in the collegiate church in Wrocław. There are two towers in Czech Cistercian churches without transepts⁷⁸: Church of the Holy Ghost in Hradec Králové (from the beginning of the 14th c. to 1360), Church of St. Mikulaše in Znojmo (the nave 1338 – 1390, the chancel 13th/14th c.), Church of St. Jacob in Kutna Hora (1st half of the 14th c.). Architectural and sculptural solutions used in the interiors of these churches were different from the ones in Silesian churches, for example pillars, walls

⁷⁶ W. Buchowiecki, *Die gotischen Kirchen Österreichs*, Wien 1952; R. Wagner-Rieger, *Mittelalterliche Architektur in Österreich*, Vienna 1988.

⁷⁷ J. Jarzewicz, *Gotycka architektura Nowej Marchii*, Poznań 2000.

were fragmented with attached shafts, except for the church Kutna Hora. Brackets are described as Parler type of brackets which are more fleshy or thicker than ours. There is an impression that Polish and Czech churches which were built at similar time independently followed patterns from Western Europe.

In a few Silesian churches there are equilateral octagonal pillars. In the southern part of Silesia the use of such pillars was often thought to be influenced by the geographic closeness of Moravia. However, octagonal pillars were used in Silesia as early as the 13th c. The best example is the collegiate church in Głogów where gothic octagonal pillars were placed on the foundations of older pillars with the same plan. In a few churches octagonal pillars are enriched with pilaster strips. A characteristic feature of many Silesian churches are elongated octagonal pillars with pilaster strips. They distinguish Silesian churches from German, Czech and Austrian churches as well as Parler churches where there are pillars with attached shafts or cylindrical.

The forms of some sculptures and vaults show influences from very distant countries such as Italy and England. Magnificent sculptures of A. Pisano and his son became a pattern followed in sculptures brackets in the Church of Virgin Mary on the Sand⁷⁹. Vaults in the cathedral in Lincoln inspired the authors of vaults in Namysłów⁸⁰ who made vaults n trapeze projections (Fig. 10).

The combination of square bays with star vaults and rectangular 5-support ones can be considered typical of Silesian hall churches. In basilicas they were used only once in the chancel of the Church of St. Mary Magdalene in Wrocław. When 5-support vaults were used there were two windows in each bay. Such solutions with two windows were used as early as the 13th c. in the parish church in Racibórz, however, the original vault has not been preserved there. It can be found in Czech Kolin and in Heiligenkreuz. In both churches an additional vault flowing down between windows was used regardless of the square or rectangular bay shape. The solutions used in the cathedral in Salisbury, covered by a cross-ribbed vault, and the cathedral in Lincoln come from the 14th c.

Asymmetrical 5-support vaults introduced a vivid effect of motion to the interior. Even higher dynamics was achieved in churches where the spacing of pillars differed from the spacing of other supporting elements, like in Namysłów and Ścinawa. This cannot be an accident or a calculation element, it must have been a well thought over concept of architects from the second half of the 14th c. Striving for asymmetry in church bodies resulted in resignation from elevations with two towers and the introduction of a single tower in the northern corner between a chancel and a nave. It is characteristic that the western elevation in Jawor, which was started with two tower, was completed as an asymmetrical elevation with a single tower (Fig. 3).

Diversification of forms is visible in tracery design with its variety of compositions. Such elements as vesicae piscis and flamboyant gothic style details appeared early. The first vesicae piscis were probably used in the western portal of the Church of Virgin Mary on the Sand in Wrocław started about 1330. Could these forms have come from England? Asymmetrical vaults following the crazy vaults in Lincoln are of English origin. English tracery is exceptionally varied and portals with pinnacles are similar to Silesian ones. The mobility of medieval builders was incredible. In the 14th c. not only English but also Italian influences can be observed in Silesia, they can be seen in portals, bracket sculptures and pilaster strips which were typical elements of vertical fragmentation.

Although Silesia became a Czech fiefdom, and thus theoretically there could have been more Czech and Austrian influences, in fact there still were medieval architects who created their own type of gothic architecture influenced by various districts and countries, however, they transformed and not only copied the existing forms. They started their activity in the 4th quarter of the 13th c. with large complexes in Wrocław and Kamieniec Ząbkowicki. There appeared new spatial designs, constructions and forms which shaped the architecture of Silesian hall churches in the 14th c., the architecture of a developed gothic style different from the European classical gothic architecture. The new characteristics were: spaciousness, asymmetry and dynamics.

Translated by A. Tyszkiewicz

⁷⁸ V. Mencl, *Česka architektura doby lucemburské*, Praha 1948, *Umělecké Pamiatky Čech*, Praha 1977.

⁷⁹ B. Kaczmarek, *Rzeźba architektoniczna XIV w. we Wrocławiu...*

⁸⁰ The first author to pay attention to this was D. Hanulanka, op. cit.

Bibliography

- Architektura gotycka w Polsce*, ed. T. Mroczko and M. Arsyński, Katalog zabytków, ed. A. Włodarek, Warsaw 1995.
- K. Barczyńska, *Architektura sakralna Śląska z lat 1268-1320*, PhD dissertation, Ministry of Labour and Social Policy (hereinafter: MLSP), 2006.
- W. Buchowiecki, *Die gotischen Kirchen Österreichs*, Vienna 1952.
- L. Burgemeister, G. Grundmann, *Die Kunstdenkmäler der Stadt Breslau*, Breslau 1934.
- G. Chmarzyński, *Sztuka górnośląska*, in: *Górny Śląsk*, ed. K. Popiołek, M. Suchodzki, S. Wyslouch, S. Zajchowska, Poznań 1971.
- T. Chrzanowski, M. Kornecki, *Sztuka Śląska Opolskiego*, Kraków 1974.
- O. Czerner, *Chór kapłański i lektorium kościoła NMP we Wrocławiu w XIV w. – Podstawy rekonstrukcji i związane z tym problemy*, "Kwartalnik Architektury i Urbanistyki" (hereinafter "KAiU"), 1965, vol. X, brochure 3–4, pp. 181-206.
- O. Czerner, *Problemy związane z anastylozą lektorium w kościele mariackim we Wrocławiu*, Zeszyty Nauk. Politechniki Wrocławskiej, Wrocław 1968, No. 174, Architektura X, pp. 3-58.
- Encyklopedia Wrocławia*, ed. J. Harasimowicz, Wrocław 2000.
- J. Eysymontt, *Architektura pierwszych kościołów franciszkańskich na Śląsku*, in: *Z dziejów sztuki śląskiej*, ed. Z. Świechowski, Warszawa 1978, pp. 68-76.
- H. Golasz-Szołomicka, *Okna maswerkowe z XIV w. na Śląsku*, "Architectus", 2012, No. 1 (31).
- H. Golasz-Szołomicka, *Longitudinal tracery Windows In Silesian churches from the second half the 13th century*, „Architectus”, Wrocław 2010 r., nr 1 (27), pp. 15-22.
- A. Grzybkowski, *Kościół św. Krzyża i św. Bartłomieja*, in: *Encyklopedia Wrocławia*, Wrocław 2000, p. 406.
- D. Hanulanka, *Sklepienie późnogotyckie na Śląsku*, WTN, Rozprawy Komisji Historii Sztuki, Wrocław 1971, vol. VII.
- J. Jarzewicz, *Gotycka architektura Nowej Marchii*, Poznań 2000.
- J. Jarzewicz, *O artystycznych i funkcjonalnych uwarunkowaniach architektury kościoła w Nysie*, in: *Sztuka około 1400*, Poznań 1995, pp. 158-160.
- Katalog zabytków sztuki w Polsce*: vol. IV, Województwo wrocławskie (new series), ed. J. Pokora, M. Zlat; vol. VII, Województwo Opolskie, ed. T. Chrzanowski, M. Kornecki.
- R. Kaczmarek, *Gotycka rzeźba architektoniczna prezbiterium kościoła św. Elżbiety we Wrocławiu*, in: *Z dziejów wielkomejskiej fary. Wrocławski kościół św. Elżbiety w świetle historii i zabytków sztuki*, ed. M. Zlat, Wrocław 1996, pp. 53-73.
- R. Kaczmarek, *Rzeźba architektoniczna XIV w. we Wrocławiu*, Wrocław 1999.
- A. Kastner, *Geschichte und Beschreibung der Pfarrkirche des heiligen Jacobus*, "Neisser Geschichtsfreund", 1, 1848, pp. 4-9.
- J. Kębłowski, *Nysa, seria Śląsk w zabytkach sztuki*, Wrocław 1972.
- M. Kilariski, *O właściwą fakturę muru zabytków*, "Ochrona Zabytków", 1955.
- S. Kowalski, J. Muszyński, *Kozuchów*, Poznań 1959.
- H. Kozaczewska-Golasz, *Halowe budowle sakralne na Śląsku w XIV w.*, Wrocław 1982, MLSP in the Library of the Institute of the History of Art and Architecture of Wrocław University of Technology (hereinafter IHASiT. PWr.)
- H. Kozaczewska-Golasz, *Zagadnienie przegród w polskich kościołach parafialnych*, "KAiU", 1980, vol. XXV, brochure 3–4, pp. 191-201.
- H. Kozaczewska-Golasz, A. Bernaś, *Portale czternastowieczne w kościołach śląskich*, "KAiU", 2010, vol. LV, brochure 1–2, pp. 53-74.
- H. Kozaczewska-Golasz, A. Bernaś, *Portale czternastowieczne w kościołach śląskich, detale architektoniczne i rzeźbiarskie*, "KAiU", 2010, vol. LV, brochure 1–2, pp. 75-92.
- H. Kozaczewska-Golasz, T. Kozaczewski, *Kościół pcysterski p.w. N.M. Panny w Kamieńcu Żąbkowickim*, Prace Naukowe IHASiT. PWr., Wrocław 1988, No. 19, series: Studia i Materiały No. 9, pp. 235-276.
- T. Kozaczewski, *Głogów średniowieczny do końca XIII w. Osadnictwo i architektura*, Głogów 2006.
- T. Kozaczewski, *Środa Śląska*, Wrocław-Warszawa-Kraków 1965.
- M. Kutzner, *Cysterska architektura na Śląsku w latach 1200 – 1330*, Toruń 1969.
- M. Kutzner, *Kościół bazylikowy w miastach śląskich XIV wieku*, in: *Sztuka i ideologia XIV wieku*, ed. P. Skubiszewski, Warszawa 1975, pp. 275-316.
- M. Kutzner, *Kościół św. Elżbiety we Wrocławiu na tle śląskiej szkoły architektonicznej XIV w.*, in: *Z dziejów wielkomejskiej fary. Wrocławski kościół św. Elżbiety w świetle historii i zabytków sztuki*, ed. M. Zlat, Wrocław 1996, pp. 19-52.
- C. Lasota, A. Legendziewicz, *Badania gotyckiej architektury Namysłowa. Kościół parafialny miasta lokacyjne*, "Architectus", 2005, No. 1–2 (17–18), pp. 21-33.
- C. Lasota, J. Rozpędowski, *Rozwój przestrzenny kościoła parafialnego w Gubinie*, Prace Naukowe IHASiT PWr. Wrocław 1980, No. 13, series: Studia i materiały No. 6, pp. 69–72.
- H. Lutsch, *Verzeichnis der Kunstdenkmäler der Provinz Schlesien*, Breslau 1886 – 1902.
- E. Łużyniecka, *Architektura średniowiecznych klasztorów cysterskich filiacji lubiąskiej*, Wrocław 1995.
- E. Łużyniecka, *Architektura klasztorów cysterskich. Filie lubiąskie i inne cenobia śląskie*, Wrocław 2002.
- E. Łużyniecka, *Gotyckie świątynie Wrocławia*, Wrocław 1999.
- E. Łużyniecka, *Kolorystyka i faktura architektury średniowiecznych kościołów cysterskich w Polsce*, "Architectus", No. 1(7), Wrocław 2000, pp. 19–28.

Town	Church	Chancel	Nave	Dimensions (m)					Tower	Nave erection time
				Nave width	Nave height	Aisle width	Transsept	Proportions of the nave cross-section		
Gliwice	parish	8.14 x 18.15	19.70 x 24.80	8.23	17.12	4.28	-	1 : 2.08	western	14 th c.
Głogów	collegiate	7.53 x 23.64	19.08 x 29.31	7.51	15.90	4.78; 4.72	-	1 : 2.12	western	1335-1401
Gubin	parish	7.75 x 18.95	22.00 x 24.30	7.80	about 12	5.80	-	1 : 1.54	2 western	1 st half 14 th c.
Jawor	parish	9.20 x 21.20	24.10 x 30.50	9.10	14.50	5.60	-	1 : 1.59	2 western	13 th /14 th c.
Kamieniec Ząbkowicki	Cistercian	19.70 x 16.30	19.70 x 36.30	8.65	23.60	4.70	9.10 x 37.70	1 : 2.73	No	1 st half 14 th c.
Koźuchów	parish	8.70 x 15.10	22.60 x 21.50	8.70	12.80	5.40	-	1 : 1.61	north-east	1340-1369
Namysłów	parish	(14 th c.)	18.70 x 24.95	7.24	14.35	4.20	-	1 : 2.00	western	2 nd half 14 th c.
Nysa	parish	(14 th c.)	22.50 x 33.40	9.20	27.20	5.05; 5.20	-	1 : 2.96	detach-ed	before 1392
Oleśnica	Virgin Mary	no	12.45 x 18.15	4.10	6.95	2.90; 3.00	-	1 : 1.69	western	1380-1390
Opole	Franciscan	8.00 x 20.00	15.75 x 28.80	6.60	15.20	3.80	-	1 : 2.30	north-east	beginning of 14 th c.
Paczków	parish	9.20 x 20.10	22.00 x 21.00	8.80	20.86	4.76; 4.88	-	1 : 2.37	north-east	2-3 quarter 14 th c.
Ścinawa	parish	9.35 x 17.70	17.55 x 17.64	6.90	12.45	4.30	-	1 : 1.80	western	2 nd half 14 th c.
Środa Śląska	Franciscan	about 8.8 x 17.1	15.90 x 24.16	6.35	14.65	3.40; 3.70	-	1 : 2.30	north-east	14 th c.
Wołów	parish	7.75 x 15.10	19.50 x 20.85	8.10	16.00	4.20	-	1 : 1.97	north-east	14 th c.
Wrocław	Holy Cross	9.76 x 24.66	21.40 x 23.30	8.80	18.37	4.95	9.20 x 34.80	1 : 2.09	south-east	1 st half 14 th c.
Wrocław	St. Dorothy	9.20 x 26.70	21.40 x 44.00	9.20	25.00	5.10; 4.35	-	1 : 2.72	north-east	1351- beginning of 15 th c.
Wrocław	Virgin Mary on the Sand	22.50 x 39.60	22.50 x 31.10	8.90	23.10	5.00	-	1 : 2.60	2 western	1334-1390
Ząbkowice Śląskie	parish	8.55 x 13.55	16.90 x 27.35	about 7.0	15.95	3.40; 3.80	-	1 : 2.28	north-east	14 th c.

Table: Hall churches from the 13th c.

- M. Machowski, A. Włodarek, *Gliwice, Kościół parafialny p.w. Wszystkich Świętych*, in: *Architektura gotycka w Polsce*, ed. T. Mroczko and M. Arsyński, Katalog zabytków, ed. A. Włodarek, Warsaw 1995, p. 81.
- E. Małachowicz, *Faktura i polichromia architektoniczna średniowiecznych wnętrz ceglanych na Śląsku*, "KAiU", Warsaw 1965, vol. X, brochure 3–4, pp. 207–227.
- E. Małachowicz, *Katedra wrocławska. Dzieje i architektura*, Wrocław 2000.
- E. Małachowicz, *Problemy konserwacji średniowiecznej faktury i polichromii architektonicznej we Wrocławiu*, "Ochrona Zabytków", 1965, No. 4.
- E. Małachowicz, *Wrocławski zamek książęcy i kolegiata św. Krzyża na Ostrowie*, Wrocław 1994.
- M. Małachowicz, *Badania architektoniczne fary gubińskiej w 2008 r. Stan badań fary gubińskiej*, in: *Lubuskie materiały konserwatorskie*, vol. 5, Zielona Góra 2008, pp. 54–61.
- V. Mencl, *Česka architektura doby lucemburské*, Praha 1948, *Umělecké Pamiatky Čech*, Praha 1977.
- J. Pilch, *Zabytki architektury Dolnego Śląska*, Wrocław 1978.
- J. Pilch, *Leksykon zabytków architektury Dolnego Śląska*, Warsaw 2005.
- J. Pilch, *Leksykon zabytków architektury Górnego Śląska*, Warsaw 2008.
- U. Popłonyk, *Opole*, Wrocław-Warszawa-Kraków 1970.
- J. Radziewicz-Winnicki, B. Małusecki, *Średniowieczna architektura kościoła parafialnego Wszystkich Świętych w Gliwicach*, in: "Rocznik Muzeum w Gliwicach", 1999, vol. XIV, pp. 37–51.
- J. Sas-Zubrzycki, *Sklepienia polskie z doby średniowiecza i odrodzenia*, Miejsce Piastowe 1926.
- B. Steinborn, *Otmuchów, Paczków*, series: Śląsk w Zabytkach Sztuki, Wrocław 1982, pp. 151–184.
- S. Stulin, Paczków, in: *Architektura gotycka w Polsce*, ed. T. Mroczko and M. Arsyński, Katalog zabytków, ed. A. Włodarek, Warsaw 1995, p. 180.
- S. Stulin, A. Włodarek, *Kościół p.w. Panny Marii, kanoników regularnych*, in: *Architektura gotycka w Polsce*, ed. T. Mroczko and M. Arsyński, Katalog zabytków, ed. A. Włodarek, Warsaw 1995, pp. 271, 272.
- C. Reisch, *Geschichte des Klosters und der Kirche St. Dorothea in Breslau*, Breslau 1908.
- S. Stulin, *Kolegiata p.w. Świętego Krzyża i św. Bartłomieja*, in: *Architektura gotycka w Polsce*, ed. T. Mroczko and M. Arsyński, Katalog zabytków, ed. A. Włodarek, Warsaw 1995, pp. 264–265.
- S. Stulin, A. Włodarek, *Nysa*, in: *Architektura gotycka w Polsce*, ed. T. Mroczko and M. Arsyński, Katalog zabytków, ed. A. Włodarek, Warsaw 1995, p. 169.
- H. Tintelnot, *Die mittelalterliche Baukunst Schlesiens*, Kitzingen 1951, pp. 114–144.
- R. Wagner-Rieger, *Mittelalterliche Architektur in Österreich*, Vienna 1988.
- C. Walter, *Geschichte der Stadt Freystadt*, Freystadt N/Schl. 1934.
- M. Zlat, *Ząbkowice Śl.*, Wrocław 1970.
- J. Żelbromski, *Architektoniczne polichromie we wnętrzu kościoła św. Marii Magdaleny we Wrocławiu w okresie średniowiecza*, in: *Architektura Wrocławia*, vol. 3, *Świątynia*, ed. J. Rozpędowski, Wrocław 1997, pp. 78–87.

Hanna Kozaczewska-Golasz, prof. dr hab. inż. arch.
Wydział Architektury Politechniki Wrocławskiej