

# MEDIEVAL HALL CHURCHES IN SILESIA

## PART 1. CHURCHES IN THE 13<sup>TH</sup> C.

HANNA KOZACZEWSKA-GOLASZ

### Introduction

In early Christian times the place where hall interiors appeared first were the basements of Carolingian westwerks<sup>1</sup>, next they were also found in crypts<sup>2</sup>. From the 10<sup>th</sup> c. crypts became bigger and bigger and their style resembled underground churches. Their interiors were low, with little light, covered by uniform vaulting network. The hall design started to be used at the beginning of the 11<sup>th</sup> c. parallelly with the basilica design. The first hall church was built in St. Martin in Canigou (Catalonia) in 1009<sup>3</sup>, a little later in 1017<sup>4</sup> in Bartholomäuskapelle in Paderborn, Westphalia, and in 1025<sup>5</sup> in Poitou the Abbey Church of Saint-Savin was started. In the 12<sup>th</sup> and 13<sup>th</sup> c. numerous hall churches were erected in France<sup>6</sup>, Germany<sup>7</sup> and Spain<sup>8</sup>. These were parish and abbey churches. The hall design was hardly ever used in cathedrals: in France the Cathedral of St. Pierre in Poitiers, which was started in 1162, and in England – Bristol Cathedral, whose choir was built between 1298 and 1341.

The first hall churches appeared in Silesia at the beginning of the 13<sup>th</sup> c. together with the management and spatial organisation of town laws implemented by Duke Henry the Bearded<sup>9</sup>. On the basis of architectural and archaeological research it was found out that in the 13<sup>th</sup> c. 15 hall churches, 11 basilica churches and a few churches of different designs were erected.

Before the author's research<sup>10</sup> only six of thirteen century-chapels were known: St. Hedwig Chapel in Trzebnica (the first stage of transformation into a hall)<sup>11</sup>, the Church of St. Jacob, a Franciscan church in Wrocław<sup>12</sup>, a Cistercian church in Kamieniec Ząbkowicki<sup>13</sup>, a parish church in Złotoryja<sup>14</sup>, whose body, according to some researchers, dates back to the 14<sup>th</sup> c., similarly to a parish church in Racibórz<sup>15</sup>, and the body of the Church of St. Bartholomew, the lower part of the Collegiate Church of the Holy Cross in Wrocław<sup>16</sup>. In the case of the collegiate church in Wrocław the earlier dating was possible thanks to the facts revealed in the works of E. Małachowicz<sup>17</sup> and E. Kaczmarek<sup>18</sup>.

<sup>1</sup> H. Busch, *L'art roman du sain Empire*, Paris 1963; W. Hansmann, *Kunstwanderungen in Westfalen*, Stuttgart 1966.

<sup>2</sup> P. Meyer, *Historia sztuki europejskiej*, Warszawa 1973; R. Oursel, *Bourgogne romane*, Paris 1968.

<sup>3</sup> M. Durliat, *Rousillon roman*, Paris 1958.

<sup>4</sup> G. Piltz, *Deutsche Baukunst*, Berlin 1959.

<sup>5</sup> Y. Labande-Mailfert, *Poitou roman*, 1957.

<sup>6</sup> *L'art roman en France*, ed. M. Aubert, Paris 1961; P. Dimiere, J. Porcher, *L'art cistercien. France*, Paris 1962.

<sup>7</sup> G. Dechio, G. v. Bezolt, *Die Kirchliche Baukunst des Abendlandes*, Stuttgart 1892; *Deutsche Baukunst*, Berlin 1959; W. Hansmann, *Kunstwanderungen in Westfalen*, Stuttgart 1966.

<sup>8</sup> M. Durliat, *L'art roman en Espagne*, Paris 1962.

<sup>9</sup> T. Kozaczewski, *Rozplanowanie, układ przestrzenny i rozwój miasta średniowiecznego*, Prace Naukowe Instytutu Historii Architektury Sztuki i Techniki Politechniki Wrocławskiej (hereinafter: IHASiT.PWr.), Wrocław 1973, No. 5 series Monogr. No. 4; H. Kozaczewska-Golasz, *Miejskie kościoły parafialne pierwszej połowy XIII w. na Śląsku*, "Kwartalnik Architektury i Urbanistyki" (hereinafter "KAIU"), vol. XXI, Warsaw 1986, brochure 1, pp. 17-42; H. Kozaczewska-Golasz, *Średniowieczne kościoły halowe Wrocławia*, Architektura Wrocławia, vol. 3 Świątynia, ed. J. Rozpędowski, Wrocław 1997, pp. 31-49; H. Kozaczewska-Golasz, *Rozwój kościołów halowych na Śląsku w XIII w.*, in: *Monumenta conservanda sunt. Księga ofiarowana Profesorowi Edmundowi Małachowiczowi w siedemdziesiątą piątą rocznicę urodzin*, Wrocław 2001, pp. 141-156.

<sup>10</sup> H. Kozaczewska-Golasz, *Miejskie kościoły parafialne pierwszej połowy XIII w. na Śląsku*, op. cit.

<sup>11</sup> H. Tintelnot, *Die mittelalterliche Baukunst Schlesiens*, Kitzingen 1951; T. Kozaczewski, *O niektórych niewyjaśnionych problemach kościoła poklasztornego w Trzebnicy*, "Biuletyn Historii Sztuki", R. 24, No. 1.

<sup>12</sup> T. Kozaczewski, *Pierwotny kościół franciszkański we Wrocławiu*, in: *Rozprawy Komisji Historii Sztuki WTN*, vol. III, Wrocław 1963, pp. 199-249.

<sup>13</sup> M. Kutzner, *Cysterska architektura na Śląsku w latach 1200 – 1330*, Toruń 1969.

<sup>14</sup> Z. Rawska-Kwaśnikowa, *Trzy kościoły joannickie na Dolnym Śląsku*, Spraw. Wrocławskiego Towarzystwa Naukowego, 9, Wrocław 1954; B. Steinborn, *Złotoryja, Chojnów, Świerzawa*, Wrocław 1959.

<sup>15</sup> M. Kutzner, *Racibórz*, seria *Śląsk w Zabytkach Sztuki*, Wrocław-Warszawa-Kraków 1965.

<sup>16</sup> L. Burgemeister, *Die Kunstdenkmäler der Stadt Breslau*, Breslau 1930, part. I, pp. 174-204; H. Tintelnot, op. cit., pp. 66-75; M. Kutzner, *Sztuka gotycka 1250 – 1500. Architektura*, in: *Sztuka Wrocławia*, ed. T. Broniewski and M. Zlat, Wrocław-Warszawa-Kraków 1967, pp. 69-72, 79-82, Z. Świechowski, *Architektura sakralna XIII-XV wiek*, in: *Wrocław. Jego dzieje i kultura*, ed. Z. Świechowski, Warszawa 1978, pp. 102-107.

<sup>17</sup> E. Małachowicz, *Wrocławski zamek książęcy i kolegiata św. Krzyża na Ostrowie*, Wrocław 1994.

<sup>18</sup> E. Kaczmarek, *Rzeźba architektoniczna XIV wieku we Wrocławiu*, Wrocław 1999.

The research conducted between 2009 and 2012<sup>19</sup> encompassed all preserved hall churches in Silesia (Fig. 1). 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 13<sup>th</sup> 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 between 1980 and 2011. 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

The first hall churches in Silesia date back to the first tierce of the 13<sup>th</sup> c. and most probably were erected in Wrocław – the Church of St. Valery (St. Elizabeth) and the Church of St. Andrew (St. Maria Magdalene)<sup>20</sup> (Table, Fig. 2). Although the condition of Wrocław's parish churches does not allow to unambiguously reconstruct their height, the popularity of hall design in Silesia makes it possible to assume that the first halls were erected in the capital of the region and other towns followed this example. Thus we can suppose that bodies of Wrocław's parish churches (or at least the body of one of them) were hall churches. Other churches were built in Oleśnica and Dzierżoniów<sup>21</sup>. The preserved gable walls clearly show the hall design.

Churches built in the first tierce of the 13<sup>th</sup> c. typically had simple spatial systems consisting of a rectangular body without towers, which was not significantly lengthened, had a gable roof and most probably a rectangular chancel. The Church of St. Valery in Wrocław also had a sacristy on the northern side of the chancel, now only a portal is left there<sup>22</sup>. A new element in these churches were rectangular ends of chancels and aisles. They were different from earlier Romanesque basilica complexes with apses, which were still built at the beginning of the 13<sup>th</sup> c. in parish churches in Złotoryja, Środa Śląska, Namysłów, Głogów and Ziębice.

The interiors of the naves were divided into three aisles of which the middle one was nearly twice as wide as side aisles. Only in the church in Dzierżoniów the spacing between pillars is known, it is determined by the buttresses along the southern wall. In the middle nave the bays resemble a square and in side aisles they are rectangles proportionally equivalent to two squares. In the remaining three structures we do not know the size of bays.

This new design of a parish church was accepted also by Franciscans from Wrocław and used in the newly built Church of St. Jacob, whose construction started at the turn of 1232 and 1234<sup>23</sup> (Fig. 3). The church had lengthened three-bay chancel, finished with a rectangular, five-bay nave. The body was much longer than in parish churches and walls had numerous buttresses. In a three-aisle interior the nave was wider with square bays their equivalents were rectangular bays in the aisles.

A more complex design was planned for the Cistercian church in Henryków, which was started about 1230.<sup>24</sup> It was going to be a three-aisle construction with a transept and a chancel with an ambit in a hall design, surrounded by wreath of low chapels (Fig. 3). Attached shafts are well preserved in the corners

<sup>19</sup> Author's research on medieval hall churches in Silesia were financed by the Ministry of Science and Higher Education and later by the National Science Centre.

<sup>20</sup> T. Broniewski, T. Kozaczewski, *Pierwotny kościół św. Marii Magdaleny we Wrocławiu*, "KAiU", vol. XII, Warszawa 1967, brochure 1, pp. 3-22; C. Lasota, J. Rozpędowski, *Pierwotny kościół parafialny św. Wawrzyńca i św. Elżbiety we Wrocławiu*, Prace Naukowe Instytutu Historii Architektury Sztuki i Techniki Politechniki Wrocławskiej (hereinafter IHASiT. PWr.) No. 6, Studia i Materiały No. 13, pp. 61-65; H. Kozaczewska-Golasz, *Średniowieczne kościoły halowe Wrocławia...*, pp. 31-33.

<sup>21</sup> H. Kozaczewska-Golasz, *Miejskie kościoły...*, pp. 20, 21, 25, 26.

<sup>22</sup> C. Lasota, J. Piekalski, *Kościół św. Elżbiety we Wrocławiu w świetle badań archeologicznych*, in: *Z dziejów wielkomięskiej*

*fary. Wrocławski kościół św. Elżbiety w świetle historii i zabytków sztuki*, ed. M. Zlat, Wrocław 1996, pp. 11-18.

<sup>23</sup> T. Kozaczewski, *Pierwotny kościół franciszkański we Wrocławiu*, Prace Komisji Historii Sztuki Wrocławskiego Towarzystwa Naukowego, vol. III, Wrocław 1963, pp. 199-249; C. Lasota, J. Rozpędowski, *Rozwój przestrzenny kościoła franciszkańskiego we Wrocławiu*, Prace Naukowe IHASiT. PWr., No. 15, series: Studia i Materiały No. 8, Wrocław 1981, pp. 53-64; H. Kozaczewska-Golasz, *Średniowieczne kościoły halowe Wrocławia...*, pp. 33, 35.

<sup>24</sup> M. Kutzner, *Cysterska architektura...*, pp. 80-83; T. Kozaczewski, *Pierwotne założenie kościoła cystersów w Henrykowie*, Prace Naukowe IHASiT. PWr., No. 22, Studia i Materiały No. 11, Wrocław 1989, pp. 141-155.

of chancel walls and the ambit, they determine the planned height of aisles. Due to the fact that the nave was wider than the aisles, the middle part was also to be slightly higher. Until the Tatar invasion in 1241 the chancel with attached shafts decorated with heads was completed. After a break in the construction process, which was caused by the invasion, the spatial concept was changed and the hall design was given up to build a basilica in which the nave was higher than the originally planned one. The attached shafts with double heads were not used to mount ribs, they were lengthened and their new heads were used to mount vaulting ribs<sup>25</sup>. Three aisles would have been covered with one gable roof. The chapels were much lower a possibly also covered with gable roofs which allowed to put chancel windows lower.

About the mid 13<sup>th</sup> c. parish churches in Grodków and Koźuchów were built<sup>26</sup> (Fig. 4). The bodies of these churches still had a rectangular body without towers, which was not significantly lengthened. In Grodków there were two additional elements – a sacristy and a porch. External walls had buttresses which were diagonal on the corners. There were plans to build clearly rectangular bays in the nave with equivalent square bays in the aisles. Judging by the preserved western wall of the nave, the planned height of the nave were similar to earlier structures.

In the church in Koźuchów, in which the chancel and the western wall of the nave have been preserved, nave bays were probably rectangular and in the aisles there were equivalent lengthened, rectangular bays. The chancel did not have buttresses and in the nave only western corner buttresses have been preserved. It is possible that there were equivalent buttresses on the longer walls.

After 1250, in Złotoryja the construction of a new nave was started next to the previously erected western part with a transept<sup>27</sup> (Fig. 4). The initial concept

was changed and the nave instead of a basilica design received a hall design with two western towers. The bays of cross vaulting in the nave are rectangular and in the aisles there are their square equivalents. The western towers are one of the first towers in hall churches except for a church in Głubczyce. Earlier two towers were erected in a parish church in Głuchołazy about 1235. They are the only preserved element of this church whose plan and spatial design is not known<sup>28</sup>. The construction of the parish church in Złotoryja lasted until the beginning of the 14<sup>th</sup> c. Along the earlier built southern wall there are three buttresses which are relatively short, the tower had no buttresses. On the northern side buttresses are much longer and there are buttresses along the tower walls.

The parish church in Głubczyce dates back to the third quarter of the 13<sup>th</sup> c., its only preserved part is the nave with a nine-part plan and two western towers<sup>29</sup> (Fig. 4). Square bays in the nave, which are characteristic for the first tierce of the 13<sup>th</sup> c., have their counterparts – square bays, in the aisles<sup>30</sup>. The parish church in Głubczyce had two western towers with thick walls and without buttresses. The chancel was destroyed in the 19<sup>th</sup> c. when a new two-aisle transept and a new chancel were built<sup>31</sup>. According to M. Hasak's drawing the first chancel had polygonal end and there were small buttresses along the walls. On the northern side there was a sacristy.

In the second half of the 13<sup>th</sup> c. the nave of a parish church in Racibórz<sup>32</sup> was erected (Fig. 4). The building had earlier, lengthened chancel with a polygonal end. On the western side there were two prismatic towers. The church has a different bay system in comparison with ones used earlier – aisles are slightly narrower than the nave and rectangular vaulting bays are longitudinal, not transverse. The vaulting was built later, however, the original size

<sup>25</sup> E. Łużyńska, *Architektura średniowiecznych klasztorów cysterskich filiacji lubińskiej*, Wrocław 1995, pp. 86-112, did not pay attention to rather untypical attached shafts with double heads, and the time of building the chancel was defined as the 2<sup>nd</sup> phase which started in the mid 13<sup>th</sup> c.

<sup>26</sup> H. Kozaczewska-Golasz, *Miejskie kościoły...*, pp. 21-23.

<sup>27</sup> H. Kozaczewska-Golasz, T. Kozaczewski, *Trzynastowieczny kościół NP Marii w Złotoryji*, Prace Naukowe IHASiP. PWr., No. 22, series: Studia i Materiały No. 11, Wrocław 1989, pp. 113-139.

<sup>28</sup> J. Pilch, *Leksykon zabytków architektury Górnego Śląska*, Arkady, Warszawa 2008; T. Kozaczewski, H. Kozaczewska-Golasz, *Portale trzynastowiecznej architektury na Śląsku*,

Wrocław 2009, p. 135; Z. Świechowski, *Katalog architektury romańskiej w Polsce*, Warszawa 2009, pp. 85-88.

<sup>29</sup> T. Chrzanowski, M. Kornecki, *Sztuka Śląska Opolskiego*, Kraków 1974.

<sup>30</sup> Ibidem, p. 34, M. Kornecki seen in the church in Głubczyce Czech influence. The early churches with three aisles of similar width were: Parish Church of Virgin Mary in Krakow from the beginning of the 13<sup>th</sup> c., Church of St. John in Toruń from the 2<sup>nd</sup> quarter of the 13<sup>th</sup> c. and the Dominican Church in Krakow from the mid 13<sup>th</sup> c.

<sup>31</sup> M. Hasak, *Die katholische Stadtpfarrkirche zu Leobschütz, "Oberschlesien"*, 6, 1907 – 1908.

<sup>32</sup> T. Chrzanowski, M. Kornecki, op. cit.; M. Kutzner, *Racibórz*, op. cit.

of bays is determined by buttresses between which there are two windows<sup>33</sup>.

The church in Lubsko (Fig. 4) was built in the second half of the 13<sup>th</sup> c. and rebuilt at the end the same century<sup>34</sup>. The east wall of the chancel with diagonal buttresses and the west tower built in the interior come from this first stage. After the reconstruction the external walls of the nave received high bipartite windows preserved in the western part of the church. The interior and the eastern part of the church were reconstructed in the 16<sup>th</sup> c.

The transformation of the Romanesque, Cistercian, basilica church in Trzebnica into a hall church was started with the reconstruction of St. Hedwig Chapel about 1269<sup>35</sup>, (Fig. 5). This rectangular chapel had a polygonal end on the eastern side and a cross vaulting with rectangular bays. Its body is exceptionally slender and is characterised by unusual verticalism for this time which were obtained thanks to numerous buttresses and tall windows with traceries.

In 1288 the construction of the Collegiate Church of the Holy Cross in Wrocław. The chancel, the transept and external walls of the lower Church of St. Bartholomew and a part of the upper church were built before 1295<sup>36</sup>. (Fig. 5). The height of the upper church only slightly exceeds the earlier St. Hedwig Chapel in Trzebnica. The accepted height proportions of the interior were continued in the nave of this hall church in the 14<sup>th</sup> c. Because the building has two levels, the external body is exceptionally tall.

The eastern part of the Cistercian church in Kamieniec Ząbkowicki comes from the end of the century, its construction was started in 1272<sup>37</sup>. It encompasses a three-aisle chancel, a long transept with only one aisle and the first bay of the nave (Fig. 5). Initially on the east of the chancel and the transept there used to chapels. The chancel was closed on

the east with a straight wall, similarly to the earlier Cistercian church in Henryków. The whole church in Kamieniec Ząbkowicki is vaulted. Its height decisively exceeds the height of earlier objects, however, not significantly lower than the chancel of the Collegiate Church of the Holy Cross in Wrocław.

## 2. Construction and vaults

The structure of churches was based on thick external walls, in the majority of them there were buttresses and aisles were separated by arcades supported by pillars. There is a clear longitudinal design of structural walls connected with a transverse section supported on buttresses, even in some unvaulted churches. In the first half of the 13<sup>th</sup> c. corner buttresses were most often extension of walls (Wrocław – the parish church and the Franciscan church). In the church in Dzierżoniów there are two buttresses in the middle of the southern and western walls, there are not any corner buttresses. In the church in Oleśnica there are diagonal buttresses only on the western façade, they are probably the earliest ones in hall churches. In the first quarter of the 13<sup>th</sup> c. nave walls were not burdened with vaults. In churches from the second quarter and the second half of the 13<sup>th</sup> c. vaults were used, however, only in the nave of the Franciscan church in Wrocław the longitudinal design of long walls is connected with the transverse section made of arches between bays and buttresses (Fig. 3–6). The other churches did not have zygomatic arches, there were ribs instead. Thrust exerted by nave vaults and the middle part of aisles was resisted by nave pillars, and the remaining thrust was resisted by external walls strengthened with buttresses. In abbey churches there were no buttresses on the abbey side of the church.

<sup>33</sup> M. Kutzner, *Racibórz...*, thought that the windows arrangement in Racibórz became a pattern followed by the creators of the Church of the Holy Cross in Wrocław. One can hardly agree with this because in the church in Wrocław one window is located on the axis between buttresses whose spacing depends on the vaulting of the lower church.

<sup>34</sup> S. Kowalski, *Zabytki środkowego Nadodrza*, Zielona Góra 1976, pp. 143-147; H. Golasz (H. Kozaczewska-Golasz), *Lubsko, Kościół parafialny p.w. Wniebowzięcia NPM*, Wrocław 1980, MLSP in BDZ in Zielona Góra.

<sup>35</sup> T. Kozaczewski, *Wielonawowe założenia sakralne w trzynastym wieku na Śląsku*, typescript 1991.

<sup>36</sup> The majority of scholars refers the date of the consecration of the collegiate church to the chancel. R. Kaczmarek, *Rzeźba architektoniczna XIV w. we Wrocławiu*, Wrocław 1999, reminded

that the keystone on the crossing of the lower transept was decorated with the coat of arms of Duchess Mechtylda, who left Poland after 1290 after the death of Henry IV. In the opinion of the author of this work, it means that the transept vaulting must have been finished before she left. E. Małachowicz, *Wrocławski zamek...*, 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. 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.

Most of the interiors of parish hall churches from the first half of the 13<sup>th</sup> c. had no vaults. In the preserved chancels, only in the Church of St. Valery in Wrocław, there are remains of a two-bay sixpartite vault with straining arches, pilasters and corner attached shafts (Fig. 2). In the places without attached shafts there had to be brackets, similarly to the chancel in the parish church in Złotoryja, which was started as a basilica church with a transept<sup>38</sup>. In the other parish churches the way in which they were covered is not known.

The naves of four early hall churches must have been covered with roofs. In the Initially there were plans to use vaults in the Church of St. Valery in Wrocław, which is visible thanks to the half-pillars of the rood arch with attached shafts, however, the fact that there are no attached shafts in the remaining part of the building means that the idea of using vaulting was given up. In the Church of St. Andrew straining arches are preserved on the eastern wall of the nave and buttresses along the extension of this wall and the western wall, there are no attached shafts and other traces of vaulting. In the church in Dzierżoniów there are buttresses but the remains of plaster in the attic mean that the aisle was covered with a roof.

In the second quarter of the 13<sup>th</sup> c. the construction of the Franciscan Church of St. Jacob was started in Wrocław and the Cistercian church in Henryków. Contrary to parish churches, these buildings, erected thanks to dukes' funding, presented much richer architecture. In both churches there were plans to use vaulting in the whole interior (Fig. 3, 6). In the Franciscan church a long three-bay chancel was covered with three square bays of six-part vault and the eastern bay, additionally divided by a straining arch played also the role of an apse. Corner attached shafts went down to the floor and intermediate attached shafts were suspended<sup>39</sup>. Only the bases of the attached shafts and cut stones of brackets and attached shafts have been preserved from all these

elements. The five-bay nave had a cross-ribbed vault with square or resembling a square bays in the nave and rectangular bays in the aisles. Aisle vaulting was supported on half-pillars with attached shafts located along walls. Suspended attached shafts were most probably used in the nave<sup>40</sup>. The walls were strengthened with tall buttresses on the corners and in extension of the walls except for the northern elevation where there was the abbey.

In the church in Henryków, bays in the middle aisle of the chancel were rectangular and proportional two squares, and in aisles they were square<sup>41</sup>. However, a six-part vault cannot be excluded in the middle aisle. The eastern bay, being a part of the ambit, would remain rectangular. Corner attached shafts have been preserved and among them also brackets (Fig. 3). Although the vaults were relatively high, no buttresses were used. The element which supported the construction were chapels surrounding the eastern part from three sides. In the chapels, the vaulting was supported on attached shafts which are well preserved on the southern side.

In parish churches from the second half of the 13<sup>th</sup> c. buttresses were used in all buildings, on the corners there were most often diagonal ones, except for the corners of towers in Głubczyce and the southern tower in Złotoryja (Fig. 4). Nave arcades were preserved in vaulted churches, and the construction linked longitudinal and transverse elements. The bays of the nave in Grodków and Kozuchów were to planned be rectangular while in Złotoryja there was cross vaulting with rectangular bays in the nave and nearly square bays in the aisles (Fig. 7). In Głubczyce and Racibórz there were nine-bay naves, in the latter they were slightly longitudinal. In the interiors the transverse design of the structure is emphasised by clusters of attached shafts which can be seen in Złotoryja, Głubczyce and Trzebnica (Fig. 8). Bays are separated with zygomatic arches of the same profile as ribs. In Racibórz in an earlier built chancel there are suspended attached shafts and in the nave

<sup>37</sup> M. Kutzner, *Cysterska architektura...*, pp. 86-88; 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, Fig. 42; E. Łużyniecka, *Architektura średniowiecznych klasztorów...*, p. 121 ff.

<sup>38</sup> The planned six-part vault was later constructed as a two-bay cross vault.

<sup>39</sup> T. Kozaczewski, *Pierwotny kościół franciszkański we Wrocławiu*, op. cit.

<sup>40</sup> The outline of the foundation of octagonal pillars revealed by C. Lasota and J. Rozpędowski does not reflect the form of the preserved half-pillars located along walls with attached shafts. If there were created at the same time, either the pillars had a different cross-section from their foundations, or the concept was changed after erecting the external walls.

<sup>41</sup> according to the reconstruction of T. Kozaczewski, *Pierwotne założenie...*, op. cit.

there still are brackets. St. Hedwig Chapel in Trzebnica is the last hall church in which clusters of attached shafts supporting the vault reach the floor.

In the chancel of the Church of St. Bartholomew in Wrocław (1288–1290) the ribs of the vaulting are set in polygonal half-pillars (Fig. 9). In the transept and other parts of the interior of the lower and upper church of the Collegiate Church of the Holy Cross in Wrocław branched walls were given up (Fig. 10, 11). Also in the Cistercian church in Kamieniec Ząbkowicki ribs are set in walls (Fig. 12). Thrust exerted by the vaults in both churches from the third quarter of the 13<sup>th</sup> c. is taken over by buttresses with a few offsets, on transept corners in Kamieniec Ząbkowicki there are diagonal buttresses.

### 3. Interiors

Churches coming from the first tierce of the 13<sup>th</sup> c. were composed of a rectangular chancel and the nave connected with the rood arch opening. Only in the Church of St. Valery in Wrocław, the interior design can be reconstructed. A two-bay chancel is divided by a pair of pilasters with attached shafts and there were more attached shafts in the corners (Fig. 2). This vertical articulation was changed as early as the 13<sup>th</sup> c.<sup>42</sup>, pilasters were hewed away and walls were covered with plaster with an imitation of bricks. The naves covered with roofs had smooth walls on which windows were the only decoration.

Height proportions in the Franciscan church in Wrocław did not deviate from the proportions observed in parish churches and in the nave were: 1:1.8. However, because the church was vaulted it looked different. Walls were vertically branched thanks to half-pillars, pilaster strips and attached shafts with vaulting ribs going down in their direction. The impression of slenderness was strengthened by tall windows located in each bay. In the Cistercian church in Henryków the nave was to be significantly higher, however, the proportions of its cross-section in comparison with earlier buildings were similar. Walls most probably remained smooth, without any divisions, with attached shafts only on the corners (Fig. 3, 6).

From about the mid 13<sup>th</sup> c. the vertical articulation was created by clusters of suspended attached shafts and tall Gothic arch windows, which were used for the time in a hall church in the chancel of the church in Grodków (Fig. 13). Earlier they appeared in the chancel of the cathedral in Wrocław started in 1242.

Parish churches in Złotoryja and Głubczyce, from the second half of the 13<sup>th</sup> c., were fully vaulted (Fig. 7, 14). On the walls of both churches there are clusters of cylindrical attached shafts and tall windows, which gave the interior the look typical of classical gothic. In Złotoryja all pillars in the nave have clusters of attached shafts. In Głubczyce the cross pillar and transformed eastern half-pillars had attached shafts, while other pillars were octagonal and elongated longitudinally<sup>43</sup>. Nine-bay church interior in Głubczyce is spacious with its widely spaced pillars. In Złotoryja, on the other hand, bays are rectangular and in narrow aisles they are square. Despite thickly spaced pillars, thanks to narrow, well lit aisles the interior makes an impression of being more spacious. The proportions of the nave are close to two squares, in Złotoryja they are a little lower. These two churches had two western towers. In Złotoryja their interiors were the extensions of aisles. In Głubczyce the width of the towers was smaller than the width of aisles. Their interiors were connected with tall arcades but did not create one homogenous unit.

Vertical articulation achieved thanks to attached shafts and very tall windows was used in St. Hedwig Chapel in Trzebnica, which must have been the first stage of transformation of a Cistercian church into a hall one (Fig. 8). In the unfinished chancel there also is a corner attached shaft, however, there are not any other attached shafts on a clearly visible fragment of the long wall where there is a sedilia. St. Hedwig Chapel, which is an excellent example of classical gothic architecture, is also the last example of an interior fragmented thanks to attached shafts. There are some later examples only in the churches in Głubczyce, Złotoryja and Jawor<sup>44</sup>, their naves were started earlier and built longer.

The nave of the parish church in Racibórz was probably built in the second half of the 13<sup>th</sup> c. (fig. 15). A nine-part interior has slightly rectangular bays

<sup>42</sup> C. Lasota, J. Piekalski, *Kościół św. Elżbiety we Wrocławiu...*, op. cit.

<sup>43</sup> K. Barczyńska, *Architektura sakralna Śląska z lat 1268-1320*, PhD thesis, MLSP 2006, interpreted differences as a change of concept – originally the church was designed with a transept, and later the eastern bays of the nave were built.

<sup>44</sup> Kościół parafialny w Jaworze rozpoczęto w 2 poł. XIII w., ale filary i układ przestrzenny pochodzą z początku XIV w. i z tego powodu obiekt umieszczony został wśród kościołów czternastowiecznych.

in a longitudinal design. The walls are smooth with two windows between buttresses. Undoubtedly this solution, which was used with two windows in one bay only in this church, was to improve the lighting of the interior with wide aisles.

Two hall churches started in the fourth quarter of the 13<sup>th</sup> c. – the Collegiate Church of the Holy Cross in Wrocław<sup>45</sup> and the Cistercian church in Kamieniec Ząbkowicki – have significantly higher interiors and are slenderer in proportions, especially in Kamieniec. Interior walls have no divisions, there are only tall windows and vaulting ribs are set high in the walls (Fig. 11, 12). These interiors were built in accordance with a new concept, later continued in the 14<sup>th</sup> c.

#### 4. Elevations

**Longitudinal elevation** of parish churches from the first half of the 13<sup>th</sup> c. are crowned with tall roofs, which initially were smooth but later e.g. in the Church of St. Andrew in Wrocław, they were closed in corner buttresses (Fig. 2). In the Church of St. Valery in Wrocław the chancel has additional buttresses on the wall axis, the size and distribution of windows is not known. The church in Dzierżoniów is exceptional because there are no corner buttresses, there are only intermediate buttresses, windows have not been preserved (Fig. 16). In the Cistercian church in Henryków, the construction of which started about 1230, the elevation of the chancel surrounded with chapels had smooth walls divided with large windows (Fig. 16). They reached high above right below the cornice (inside to the vaulting area) and went down as low as it was possible due to chapels. Most probably the lower parts of windows were not visible from outside because they were covered by the gable roof on the chapels. In the second quarter of the 13<sup>th</sup> c. in the Franciscan church in Wrocław in elevations there were buttresses distributed at large spaces and between them there were windows on the upper part of walls. In the eastern part buttresses separate only a rectangular apse with two windows in the south, in the chancel there were quite thickly distributed windows on a smooth wall (Fig. 16).

Chancels of parish churches from the second half of the 13<sup>th</sup> c. had walls with buttresses between

which there were longitudinal, tracery windows (Fig. 17). Buildings were covered with tall, gable roofs. In Grodków, a sacristy was erected next to the chancel, and on the axis of the south elevation there was an open porch. The parish church in Lubsko (Fig. 17), from the second half of the 13<sup>th</sup> c., with a tower built in the interior of the nave was reconstructed at the end of the 13<sup>th</sup> c. The walls of the nave remained the same without buttresses, large, thickly distributed, bipartite windows were added. Only the eastern wall with diagonal buttresses was left from a rectangular chancel. One can assume that the chancel must have had also longitudinal elevations with buttresses and windows just like those in the nave.

The chancels in Głubczyce and Racibórz were longitudinal with polygonal ends (Fig. 18). It was an important change in comparison with rectangular chancels both in the body and elevation. In Złotoryja the chancel with a polygonal apse and the transept came from the first stage of construction in 1211–1230. The chancel had smooth walls with bipartite windows located in the upper part of the walls. The apse was decorated with arcade blends on columns of which only heads have been preserved.

In the southern elevation of the nave in Złotoryja there were wide tripartite windows which occupied nearly the whole area between buttresses (Fig. 18). In Głubczyce windows are smaller and narrower than in Złotoryja. In Racibórz a different solution was used – there were two tall and narrow windows in each bay between buttresses. In Głubczyce, Złotoryja and Racibórz there were towers on the western side. In the first two places walls did not have any buttresses. The towers were divided into a few floors with cornices and they were as tall as the wall coping of the nave or the roof ridge. In Racibórz tower walls were strengthened with buttresses on wall extensions.

In the second half of the 13<sup>th</sup> c. the height of parish church elevations did not change much, however, in churches built thanks to dukes' funding, starting with St. Hedwig Chapel in Trzebnica, there was a significant increase in their height (Fig. 19). In Trzebnica, in the Collegiate Church of the Holy Cross and in Kamieniec Ząbkowicki buttresses are thickly distributed and windows occupy the whole area between them. The wall pedestal is small in proportion to longitudinal, tracery windows.

<sup>45</sup> Although the hall nave comes from the 14<sup>th</sup> c., its proportions result from values adopted for a chancel and are a continuation of the concepts of the end of the 13<sup>th</sup> c.

It is possible to reconstruct two types of **eastern elevations**, with a chancel finished with a straight wall or a polygon<sup>46</sup>. A wide elevation in Henryków was crowned with a triangle gable and it must have had a large window on its axis situated very high and smaller windows on the sides. In Grodków the eastern elevation of the chancel is closed by diagonal buttresses and crowned with a triangle gable, it had one tall window on the axis. There were also tall windows on the eastern walls of the nave. In late Gothic the height of the chancel was increased by one storey, the height of the nave was increased too. The eastern elevation in Kamieniec Ząbkowicki had higher proportions, was divided with buttresses into bays on the axis of which there were wide and tall windows. The elevation gable was changed in baroque.

The elevations of polygonal chancels in Głubczyce, Racibórz, Trzebnica and Wrocław – the Collegiate Church of the Holy Cross, were branched out, they had thickly distributed buttresses between which there were tall windows.

**Western elevations** can be divided into two groups – with and without towers. In early churches elevations were crowned with triangle gables which were not separated and were closed by buttresses on both sides. Only in Dzierżonów intermediate buttresses were introduced and there are no corner buttresses. On the axis there was a portal and sometimes above there was a window. In the church in Oleśnica there was an elevation without towers but there were small breaks imitating low towers reaching to the gable of nave walls<sup>47</sup>.

Elevations with two towers in Złotoryja and Głubczyce were divided into floors with cornices. The middle part was crowned with a triangle gable and the towers were on the sides which initially were not very high. In Złotoryja the earlier southern tower was only as high as wall gables of the nave, and the later northern one received one more storey. The towers were projected, the southern one without buttresses and the northern one with strong buttresses. In Głubczyce towers have no buttresses and they are two-storey constructions reaching the height of the

nave walls. On the elevation axis there is a projection portal with a pointed arch window above. The gable was changed in neo-gothic.

## 5. Architectural and sculptural details

Architectural details encompass: pillar bases and heads, elements related to vaults – ribs, attached shafts, brackets and keystones, windows and portals. Sculptural ornamentation can be seen in the heads of pillars and attached shafts, in brackets of attached shafts, keystones and portals.

### Pillars

Several types of pillars were used in the 13<sup>th</sup> c. In none of the parish churches from the first half of the 13<sup>th</sup> c. nave pillars were preserved, in abbey churches they were rebuilt. In the Church of St. Jacob in Wrocław, probably quadrilateral pillars were planned as one may assume looking at half-pillars along the walls with attached shafts<sup>48</sup> or possibly cross pillars with attached shafts. However, the preserved pillar bases are octagonal<sup>49</sup>. Probably during the construction of the nave, after erecting the long walls, the concept was changed and octagonal pillars with suspended attached shafts were erected<sup>50</sup>. Pillars and crossings in the church in Złotoryja come from the first stage of building a basilica church. They are asymmetric, cross pillars with half-columns on the side of the rood arcade with attached shafts in three corners. They have attic bases with clips on high, profiled pedestals. Heads are smooth, wider at the top with a high cornice.

In the Cistercian church in Henryków there was a variety of pillars: in the chancel there are rectangular, square and cross pillars near the ambit, in chapels – half-pillars with attached shafts, on the crossing – cross pillars with attached shafts, and in the first bay of the nave there are small elongated cross pillars and octagonal pillars. Some pillars changed their shape and ornamentation during baroque reconstruction, pilaster strips with heads were added then. The best preserved half-pillars are in chancels, they had low bases with a single roll moulding and clips but

<sup>46</sup> The eastern part of the church in Złotoryja, which belonged to the first unfinished stage of building a basilica church, is not taken into account.

<sup>47</sup> H. Kozaczewska-Golasz, *Miejskie kościoły parafialne...*, op. cit.

<sup>48</sup> According to the reconstruction conducted by T. Kozaczewski, *Pierwotny kościół franciszkański...*, op. cit.

<sup>49</sup> C. Lasota, J. Rozpędowski, *Rozwój przestrzenny kościoła franciszkańskiego...*, op. cit.

<sup>50</sup> Octagonal pillars were used at the second stage of the collegiate church in Głogów from the second quarter of the 13<sup>th</sup> c., according to T. Kozaczewski, *Głogów średniowieczny do końca XIII w., Osadnictwo i architektura*, Głogów 2006, pp. 66, 67, 73.

they did not have head areas which occurred only in attached shafts.

In the churches from the second half of the 13<sup>th</sup> c., pillars have been preserved in only four of them. In the nave of the parish church in Złotoryja there are three pairs of nave pillars, they have a shape of an oblong rectangle with clusters of five attached shafts on the axis of the longer side and single attached shafts on the axis of the shorter side. The pillars have bases with several levels and are situated on pedestals, they are round and polygonal at the attached shafts and are crowned with heads which are wider at the top. Tower pillars are more massive, they have an asymmetrical cross plan with attached shafts in the corners and on the axis of the arm located on the side of nave pillars and a half-column with a larger diameter on the side of the nave.

In the parish church in Głubczyce there are three types of pillars (Fig. 20). The pillars of the rood arch, which were slightly changed during the reconstruction in the 19<sup>th</sup> c., are cross pillars with arms with polygonal ends and attached shafts in the corners. The pedestal is quite high and pillar heads are separated with a roll moulding, they covered with a delicate relief with plant ornaments in the form of palm trees crowned with a cornice with a concave profile. Only attached shafts had socket-block heads which were covered with ornaments similar to the ones used on the pillars, now they are plated with gold and crowned with an identical cornice. The south-east pillar of the nave is also a cross pillar with attached shafts, however, they are not symmetrical. On the eastern and northern side there are polygonal ends like the cross pillar, while on the southern and western side arms are rectangular. The width of the western arm is decisively bigger and reflects the full width of the next pillar, which is octagonal. The pedestal and the head of this pillar have similar forms as rood pillars, the only difference are leaf-like ornaments with oak leaves. Three other pillars are octagonal with a longitudinal plan. The forms of pedestals and heads are similar to the ones described above and they differ only in plant ornaments, this time it is grapevine.

In the Cistercian church in Kamieniec Ząbkowicki, in its older, eastern part there are three types of pillars – octagonal ones in the chancel, cross pillars on the crossing and the first pair of nave pillars (Fig. 21). The octagonal pillars in the chancel have plate bases on low pedestals and original solutions in their top part. On the side of the nave there are vault ribs

set in pillar walls. At the level of the arcade, the pillar side was enlarged to reflect the dimensions of cross pillars, which have a cross plan, elongated along the church axis, their arms have cut corners. They rest on high pedestals with a small base. At the base of nave arches cut corners of pillars arms are levelled with a cavetto to give them a square plan and higher they turn into an arch. There is no head area, in its place there is a corner undercut. Between pillar arms there are smaller rectangular elements with cut corners along the whole height, higher these elements turn into arches accompanying arcades.

The first pair of cross pillars in the nave has a smaller cross-section and it is not as long as in the case of cross pillars, without any rectangular elements. On the side of arcades arms have ends which are adjusted to the octagonal pillars in the nave, and in the other places they are wider with slightly cut corners. The arms on the side of the nave smoothly turn into arcades, in other arms there is a change of profile at the base of the arcade like in neighbouring pillars. Vault ribs are set in pillars at small distances from one another. The base rests on a high pedestal.

Cross pillars in the Church of St. Bartholomew in Wrocław have a cross design with slight cuts on corners. Their base is a low pedestal. There is no head zone and profiling turns into straining arches on all four sides, they are wide along nave arcades and narrower along the rood arch.

### **Vaults and their details**

The chancels and naves of the churches have six-part and cross-ribbed vaults, divided by arches or zygomatic ribs. Six-part vaults could be found in the Church of St. Valery (St. Elizabeth), in the Franciscan church in Wrocław and in the chancel of the parish church in Złotoryja. In none of the churches they have been preserved, the proof are keystones and attached shafts.

The oldest type of vault in hall churches, i.e. a cross-ribbed vault, has been preserved in the transept of the parish church in Złotoryja and in the south chapel of the Cistercian church in Henryków (Fig. 7).

In the vaults constructed in the 13<sup>th</sup> c. there are ribs which can be divided into four groups according to the shape of their cross-sections (Fig. 22 - 24):

1. profiles with a roll moulding and pear-shaped (Złotoryja, Henryków, Głubczyce, Grodków, Trzebnica),

2. rectangular profiles with bevelled or profiled cornerstones (Henryków – the chapel, Wrocław – St. Bartholomew, Kamieniec Żabkowicki),
3. trapeze profiles with a single cavetto (Grodków),
4. double cavetto profiles (Złotoryja – nave arch, Wrocław – St. Bartholomew, the chancel and transept).

Ribs in keys are joined with keystones. They had plate shapes with plant or sculptured ornaments, in Złotoryja there are sculptures and in the Church of St. Bartholomew in Wrocław there are coat of arms shields<sup>51</sup>.

Vault ribs were based on attached shafts heads and brackets, or they were set in walls and pillars. In the chancels of Wrocław churches – the Church of St. Valery and Franciscan Church of St. Jacob from the first and the second quarter of the 13<sup>th</sup> c., the ribs of six-part vaults flow to in the direction of corner attached shafts and brackets<sup>52</sup>. In the nave of the Franciscan church in Wrocław, in aisles bay were divided by zygomatic arches which rested on half-pillars, and ribs flowed to attached shafts with plate bases with one big roll moulding or two small ones. The whole structure together with a half-pillar was based on a profiled pedestal. Eastern attached shafts situated in wall corners had an additional pilaster.

In the southern chapel of the chancel in the Cistercian church in Henryków ribs flow on cylindrical attached shafts, which are based on attic bases with clips, with a flattened bottom torus, and crowned with socket heads with various plant ornaments. In the aisles of the church in Henryków there are corner attached shafts (bricked) with socket heads and socket-block heads with a profiled cornice, they have plate bases on low plinths. In the middle part of the wall there are geometric brackets (Fig. 6, 22).

In the third quarter of the 13<sup>th</sup> c. vault ribs were based on attached shafts going down to the floor and on suspended attached shafts and brackets. In the parish church in Złotoryja in the nave ribs are supported on clusters of five attached shafts next to pillars and external walls. Small plate bases rest on

circular pedestals with several levels or polygonal pedestals. There are high socket heads, in the southern aisle there are additional leaf-like ornaments. In St. Hedwig Chapel in Trzebnica there are clusters of three attached shafts supported on polygonal pedestals with plate bases. The heads are covered by openwork leaf-like ornamentation and crowned with a polygonal plate.

The third building with attached shafts going to the floor is the parish church in Głubczyce (Fig. 14). Attached shafts are used in two cross pillars and on longitudinal walls. Single attached shafts and clusters of attached shafts are supported on pilasters, some with cut, concave corners. Plate bases are situated on quite tall, cylindrical pedestals. Attached shafts have socket heads, except for a few basket heads, they are all covered with various leaf-like ornaments, now gold plated. Ribs on cross pillars and corner ribs are supported not directly on heads but on prismatic cubes or rib profile cubes.

In the low interior of the chancel of the Church of St. Bartholomew in Wrocław are set in polygonal half-pillars (Fig. 9).

In two churches there are suspended attached shafts – in the parish churches in Grodków and Racibórz (Fig. 25). In the former clusters of attached shafts with two storeys are crowned with developed heads with plant ornaments and high tow-level cornice. Top clusters of attached shafts are supported on geometric or plant-like brackets surrounding the bottom single attached shaft with a bigger diameter. The brackets of these attached shafts are geometric or they have masques. A big group of attached shafts is located against the background of a pilaster which is appropriately undercut<sup>53</sup>. In Racibórz clusters of three attached shafts received tall, smooth socket heads and brackets divided with a roll moulding, which are appropriately undercut elements of shanks.

In the last quarter of the 13<sup>th</sup> c. brackets and attached shafts were no longer used, ribs are slightly elongated in the bottom direction, they were undercut and were set in walls (Fig. 26). In the Church of the Holy Cross in Wrocław on the diagonal plane of

<sup>51</sup> The cornerstone at the crossing with the coats of arms of Duchess Mechtylda has not been preserved. It must have been made before 1290 when the duchess left Poland after her husband's, Duke Henry IV's, death. The transept vault has not been preserved either.

<sup>52</sup> A similar solution was used in the chancel of the parish church in Złotoryja from the first quarter of the 13<sup>th</sup> c.

<sup>53</sup> M. Kornecki thought that attached shafts in Grodków are related to Cistercian patterns and their ornaments were influenced by cathedral in Wrocław from about 1270. According to T. Chrzanowski, M. Kornecki, *Sztuka Śląska Opolskiego...*, s. 34.

the rib undercutting there are decorative grooving. In Kamieniec Ząbkowicki ribs are set in the surface of pillars in a slightly awkward manner (Fig. 21).

### Windows

In preserved at their full height there are tracery windows. Their sizes and forms vary significantly<sup>54</sup>. In terms of composition they can be divided into central and multi-level ones. The oldest bipartite windows have been preserved in the chancel of the parish church in Złotoryja. Traceries end in a pointed arch and in the lower part of the arch there is a small circle.

A rich variety of tracery windows from the second quarter of the 13<sup>th</sup> c. can be found in the church in Henryków. In the arms of the transept there are bipartite windows with a central tracery with a circle and a trefoil. Other tri-partite windows have traceries with a multi-level composition. It encompasses: open trefoils, 3 circles and closed circular multifoils. In the available western window of the southern arm of the transept, tracery is made of shape bricks. The tracery is covered with plaster but most probably it is also made of brick.

In the windows in Grodków and Racibórz from the third quarter of the 13<sup>th</sup> c. there are similar multi-level compositions. However, in the churches in Złotoryja and Trzebnica a cinque-foil was used in the central composition and quatrefoils in a two-level design. The windows in these churches have additional profiled reveals. Windows from the fourth quarter of the 13<sup>th</sup> c. are significantly larger and have more complex composition, they can be found in the Collegiate Church of the Holy Cross in Wrocław and in the Cistercian church in Kamieniec Ząbkowicki. The cross-sections of traceries end with a circular or polygonal form or with longitudinal polygonal form which gives the impression of slenderness. It should be mentioned that in one elevation there were windows with various compositions and various tracery cross-sections as early as the second quarter of the 13<sup>th</sup> c.

### Portals

Portals have been preserved in eight hall churches and in the transept of the parish church in Złotoryja, which was initially constructed as a basilica church.

Among twelve portals two are external reveal ones, one is a recessed portal, four – recessed with columns and five are fragmented portals<sup>55</sup>. The oldest recessed portals with columns have been preserved in Złotoryja from 1220-1225, in this group the northern portal is a projection one with a pointed arch and a triangle gable. The projection of the southern portal was hewed off. The second preserved projection crowned with a wimperg is in the western elevation of the church in Głubczyce and comes from the third quarter of the 13<sup>th</sup> c. The southern portal of this church has a small projection with a pointed arch. The portals mentioned here had heads area with plant ornaments and bases for whole reveals.

About 1230 in the western portal in Dzierżoniów, which a recessed one with columns, the columns without a head area turn into archivolt rolls. It was similar a little later probably in Kozuchów and in Kamieniec Ząbkowicki. The portal in Grodków dates back to about 1250 and it the first hall church with fragmented reveals. On the sides of the reveals there were stone human heads. Fragmented reveals can be found also in portals in Głubczyce, Trzebnica and Kamieniec Ząbkowicki. In the portal in Trzebnica, which leads from St. Hedwig Chapel to the chancel, a figural tympanum has been preserved.

## 6. Hall churches versus basilica churches

In the 13<sup>th</sup> c. the construction of eleven basilica churches was started and sometimes also completed. In this group there were five parish churches, one cathedral, one collegiate church and four Cistercian churches (Fig. 27, 28). The construction of the parish churches and the Cistercian church in Trzebnica was started in the first tierce of the 13<sup>th</sup> c.. The construction of four churches was started in the second quarter of the 13<sup>th</sup> c. and only the reconstruction of the Cistercian church in Lubiąż took place in the second half of the 13<sup>th</sup> c. All these churches had elongated bodies with three aisles divided from one another with thickly spaced pillars. The ration of an aisle to the nave was close to 1 : 2. In five churches aisles and chancels from the first tierce of the 13<sup>th</sup> c. had ends with semicircular or polygonal apses. Polygons appeared first in the parish church

<sup>54</sup>H. Kozaczewska-Golasz, H. Golasz-Szołomicka, *Odkolumenty do maswerku w oknach kościołów śląskich w pierwszej połowie XIII w.*, "Architectus", No. 1 (23), Wrocław 2008, pp. 29-40; H.

Golasz-Szołomicka, *Longitudinal tracery Windows in Silesian churches from the second half the 13<sup>th</sup> century*, "Architectus", No. 1 (27), Wrocław 2010, pp. 15-22.

<sup>55</sup>T. Kozaczewski, H. Kozaczewska-Golasz, *Portale...*, op. cit.

in Złotoryja<sup>56</sup> and later in the collegiate church in Głogów<sup>57</sup>, in which the foundation was prepared for a semicircular apse and later the shape was changed into a polygonal ones<sup>58</sup>. In the Parish Church of St. Nicholas in Głogów the northern apse was semicircular and the southern one was semicircular inside and polygonal outside<sup>59</sup>. A rectangular closure of aisles first occurred in the parish church in Sobótka which dates back to earlier than 1225 and the chancel in this church ends with a semicircular apse<sup>60</sup>.

In hall churches from the 13<sup>th</sup> c. there are no apses in aisles which are closed with straight walls. In the Church of St. Valery in Wrocław the chancel is also rectangular without an apse. In other churches from the first half of the 13<sup>th</sup> c. chancels have not been preserved.

In the second half of the 13<sup>th</sup> c. parish churches with basilica design were no longer erected. The basilica church started in Złotoryja was transformed into a hall church. However, the Cistercian church in Henryków, the construction of which was started as a hall church, after 1241 was continued as a basilica one.

Some basilica churches had transepts and towers. The transepts can be found in one parish church in Złotoryja and in Cistercian churches. The churches in Henryków and Lubiąż received basilica ambits with chapels. The chancel of the cathedral in Wrocław is also a three-aisle basilica with a rectangular ambit and towers located on its eastern corners. A solution used in the eastern part is unusual in the church in Rudy Raciborskie, it has a rectangular chancel and one rectangular chapel on each side of the transept<sup>61</sup>.

Church interiors were covered with roofs or vaults. The preservation level of parish churches does not allow to determine in which way they were roofed. The only exception is the church in Złotoryja where there was a six-part vault supported on attached shafts and brackets in the chancel and a cross vault with ribs flowing to attached shafts in the transept. On the crossing the key of the vault is increased and from above it looks like an abbey vault. All Cister-

cian churches and the cathedral in Wrocław were vaulted. Six-part vaulting supported on attached shafts was used in the church in Trzebnica. In the cathedral in Wrocław six-part vaults in the nave are supported on brackets and cross vaults in aisles are supported on attached shafts reaching the floor. In the church in Rudy Raciborskie nave bays are nearly square and in aisles they are rectangular, they all have cross-ribbed vaults with attached shafts divided by perpendicular arches. Except for the early church in Trzebnica, only in the church in Rudy there are perpendicular arches. Both arches and architectural details indicate that the church was built earlier<sup>62</sup> than after 1258 when the Cistercian church in Rudy was first mentioned. The church could have been erected for another order and later taken over by the Cistercians, the same thing happened in Trzebnica.

In hall churches a six-part vault was used only in the chancel of the Franciscan church in Wrocław, it must have been planned also in the hall chancel of the Cistercian church in Henryków. In the body of the Franciscan church there were cross vaults with ribs, which in aisles were based on attached shafts with pilasters supported on straining arches. Other hall churches from the second half of the 13<sup>th</sup> c. had cross-rib vaults.

The elevations of basilica did not have buttresses and in hall churches buttresses were used from the beginning of the 13<sup>th</sup> c.

Basilica churches are divided into very different groups. One of them are parish churches in which Romanesque three-sided apse design was continued, and the novelty were pointed arches instead of Romanesque complete arches. The church in Trzebnica was initially built for another order and taken over by the Cistercians, it also had a three-sided apse design. The other group encompasses Cistercian churches in which, starting with the church in Henryków, there were three-aisle chancel with an ambit and chapels. This design was used in the cathedral in Wrocław without chapels but with two eastern towers.

<sup>56</sup> H. Kozaczewska-Golasz, T. Kozaczewski, *Trzynastowieczny kościół N.P. Marii w Złotoryi...*, Fig. 27.

<sup>57</sup> T. Kozaczewski, *Głogów średniowieczny do końca XIII w. Osadnictwo i architektura*, Głogów 2006.

<sup>58</sup> A similar change in the apse took place in the Church of St. Giles in Wrocław, T. Kozaczewski, *Wyniki badań architektonicznych przeprowadzonych w kościele św. Idziego we Wrocławiu*, "KAIU", vol. XVII, brochure 2, Warszawa 1972, pp. 103-132.

<sup>59</sup> S. Kowalski, *Romańska bazylika św. Mikołaja w Głogowie*, Prace LTN, Komisja Historii VII, brochure 3, Zielona Góra 1970, pp. 49-62.

<sup>60</sup> J. Hawrot, *Odkrycie budowli romańskiej w Sobótce*, "Ochrona Zabytków" 2, 1949, pp. 155-159; H. Kozaczewska-Golasz, *Miejskie kościoły parafialne...*, op. cit.

<sup>61</sup> E. Łuzyniecka, *Architektura klasztorów cysterskich...*, op. cit.

From the beginning of the 13<sup>th</sup> c. hall parish and Franciscan churches received rectangular ends in aisles and probably in chancels, their walls were supported on buttresses. It was new concept of a gothic church in Silesia. The collegiate church in Wrocław and the Cistercian church in Kamieniec Ząbkowicki, started in the last quarter of the 13<sup>th</sup> c. represent another type of gothic style continued in the 14<sup>th</sup> c.

## Summary

The 13<sup>th</sup> century was a time of fast development in sacral architecture evolving from the early gothic style, through a short phase of gothic called classical gothic to developed gothic<sup>63</sup> at the end of the century. The hall design was used in 9 parish churches, 4 abbey churches and a collegiate church (Fig. 29). Parish churches had short 3–4 bay naves, except for the churches in Grodków and Złotoryja, where there were 5 bays. Until the mid 13<sup>th</sup> c. the chancels of these churches had rectangular plans, aisles were closed with straight walls in the east and there were no towers.

In the Franciscan Church of St. Jacob in Wrocław started about 1232/34 the rectangular projection of the chancel and the nave were repeated, however, the proportions were elongated. The new spatial design was to be used in the Cistercian church in Henryków, the construction of which started about 1230. A hall design was to be used in a three-aisle chancel ended with a straight wall in the east and surrounded with rectangular chapels. After 1241 the concept was changed into a basilica design and the nave was heightened.

External walls of the churches from the first half of the 13<sup>th</sup> c. were supported on buttresses although the naves had no vaults. Probably vaults were used only in chancels, which can be found out thanks to one better preserved chancel in the Church of St. Valery in Wrocław. The six-part vault was supported on attached shafts in the corners of the interior and next to pilasters in the middle part of walls and on brackets. In the Franciscan church in Wrocław the nave was vaulted too, ribs flowed along walls to pilasters

with attached shafts in corners. In Henryków the vault was to be supported on corner attached shafts and intermediate brackets.

In the chancel of the parish church in Grodków, started in 1250, ribs flow to clusters of suspended, two-level attached shafts with decorative heads. A little earlier, after 1244, clusters of attached shafts were used in the chancel of the nave of the cathedral in Wrocław<sup>64</sup>. The body of the church in Grodków was enriched with a sacristy and an open porch (Fig. 30). The only earlier sacristy from the time of construction was found only in the Church of St. Valery in Wrocław.

The third quarter of the 13<sup>th</sup> c. brought richer bodies and interiors of parish churches (Fig. 29, 30). The eastern end of chancels was changed from a rectangular to a triangular one (Głubczyce, Racibórz), naves received two western towers (Złotoryja, Głubczyce, Racibórz). Not only chancels but also naves had cross-ribbed vaults. Various types of rib supports were used: in Złotoryja – clusters of attached shafts going down to the floor; in Głubczyce the construction of one cross pillar with attached shafts was started and there more octagonal, elongated pillars without attached shafts, at the walls there were clusters of attached shafts. In the chancel in Racibórz there were suspended attached shafts and the nave attached shafts were given up and replaced by brackets.

In 1268/69 the construction of the Cistercian church in Trzebnica was started with the construction of St. Hedwig chapel which had fragmented interior with thickly spaced clusters of attached shafts going down to the floor. However, in the Cistercian church in Kamieniec Ząbkowicki, which was started a little later, in 1272, attached shafts were given up completely, there are ribs set in walls or in pillars. In the lower church of the Collegiate Church of the Holy Cross, in the chancel there still are half-pillars in the transept vaulted before 1290 and in the nave the bottom part of walls was not branched, ribs are set in walls similarly to the upper chancel completed in 1295.

At the end of the 13<sup>th</sup> c. a clear departure from the classical fragmentation with attached shafts took

<sup>62</sup> T. Kozaczewski, H. Kozaczewska-Golasz, *Portale trzynastowiecznej architektury...*, op. cit.

<sup>63</sup> Defined also as reduced gothic.

<sup>64</sup> The chancel plan of the cathedral in Wrocław, it is a rectangular chancel with an ambit which referred to the projection of the Cistercian church in Henryków, however, the spatial design and

articulation of the interior were different. In the nave there were suspended attached shafts and a gallery following Italian design, and in aisles – attached shafts reaching the floor referring to French classical gothic.

place, it was initiated in the chancel of the cathedral in Wrocław. This was of designing interiors, so characteristic for Silesian architecture, was different from the classical gothic style and led to the 14<sup>th</sup> c. developed gothic style.

The walls of hall churches had buttress outside from the first quarter of the 13<sup>th</sup> c., they contributed to the gothic character of buildings (Fig. 30). Their bodies were initially modest with rectangular ends but in the third quarter of the century they were enriched with polygonal chancel ends and two western towers. The height of elevations was increased as well as the number of buttresses and size of windows. Churches started in the fourth quarter of the 13<sup>th</sup> c. in Wrocław and Kamieniec Ząbkowicki present developed, fragmented, tall bodies of the developed gothic style.

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## Bibliography

- Architektura Gotycka w Polsce*, ed. T. Mroczko i M. Arszczyńskiego, 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.
- T. Broniewski, T. Kozaczewski, *Pierwotny kościół św. Marii Magdaleny we Wrocławiu*, Kwartalnik Architektury i Urbanistyki (hereinafter: KAiU), Warsaw 1967, vol. XII, b. 1, pp. 3-22.
- L. Burgemeister, *Die Kunstdenkmäler der Stadt Breslau*, Breslau 1930, part I.
- H. Busch, *L'art roman du sain Empire*, Paris 1963.
- T. Chrzanowski, M. Kornecki, *Sztuka Śląska opolskiego*, Kraków 1974.
- G. Dechio, G. v. Bezolt, *Die Kirchliche Baukunst des Abendlandes*, Stuttgart 1892.
- Deutsche Baukunst*, Berlin 1959.
- P. Dimiere, J. Porcher, *L'art cistercien. France*, Paris 1962.
- M. Durliat, *Rousillon roman*, Paris 1958.
- H. Golasz (H. Kozaczewska-Golasz), *Lubsko, Kościół parafialny p.w. Wniebowzięcia NPM*, Wrocław 1980, MLSP in BDZ in Zielona Góra.
- H. Golasz-Szołomicka, *Longitudinal tracery Windows in Silesian churches from the second half the 13<sup>th</sup> century*, "Architectus", Wrocław 2010, No. 1 (27), pp. 15-22.
- W. Hansmann, *Kunstwanderungen in Westfalen*, Stuttgart 1966.
- M. Hasak, *Die katholische Stadtpfarrkirche zu Leobschütz*, "Oberschlesien", 6, 1907 – 1908.
- J. Hawrot, *Odkrycie budowli romańskiej w Sobótce*, "Ochrona Zabytków" 2, 1949, pp. 155-159.
- E. Kaczmarek, *Rzeźba architektoniczna XIV wieku we Wrocławiu*, Wrocław 1999.
- S. Kowalski, *Romańska bazylika św. Mikołaja w Głogowie*, Prace Lubuskiego Towarzystwa Naukowego, Komisja Historii VII, b. 3, Zielona Góra 1970, pp. 49-62.
- S. Kowalski, *Zabytki środkowego Nadodrza*, Zielona Góra 1976, pp. 143-147.
- H. Kozaczewska-Golasz, *Miejskie kościoły parafialne pierwszej połowy XIII w. na Śląsku*, KAiU, Warsaw 1986, vol. XXI, b. 1, pp. 17-42.
- H. Kozaczewska-Golasz, *Średniowieczne kościoły halowe Wrocławia*, in: *Architektura Wrocławia*, vol. 3 *Świątynia*, ed. J. Rozpędowski, Wrocław 1997, pp. 31-49.
- H. Kozaczewska-Golasz, *Rozwój kościołów halowych na Śląsku w XIII w.*, in: *Monumenta conservanda sunt. Księga ofiarowana Profesorowi Edmundowi Małachowiczowi w siedemdziesiątą piątą rocznicę urodzin*, Wrocław 2001, pp. 141-156.
- H. Kozaczewska-Golasz, H. Golasz-Szołomicka, *Od kolumnienki do maswerku w oknach kościołów śląskich w pierwszej połowie XIII w.*, "Architectus", Wrocław 2008, No. 1 (23), pp. 29-40.
- H. Kozaczewska – Golasz, T. Kozaczewski, *Kościół pocysterski p.w. N.M. Panny w Kamieńcu Ząbkowickim*, Prace Nauk. IHASzIT. PWr., Wrocław 1988, No. 19, series: Studia i Materiały No. 9, pp. 235-276.
- H. Kozaczewska-Golasz, T. Kozaczewski, *Trzynastowieczny kościół NP Marii w Złotorzy*, Prace Naukowe IHASzIT. PWr., No. 22, series: Studia i Materiały No. 11, Wrocław 1989, pp. 113-139.
- T. Kozaczewski, *Głogów średniowieczny do końca XIII w., Osadnictwo i architektura*, Głogów 2006.
- T. Kozaczewski, *O niektórych niewyjaśnionych problemach kościoła poklasztornego w Trzebnicy*, "Biuletyn Historii Sztuki", R. 24, No. 1.
- T. Kozaczewski, *Pierwotne założenie kościoła cystersów w Henrykowie*, Prace Naukowe IHASzIT. PWr., No. 22, Studia i Materiały No. 11, Wrocław 1989, pp. 141-155.
- T. Kozaczewski, *Pierwotny kościół franciszkański we Wrocławiu*, Rozprawy Komisji Historii Sztuki WTN, vol. III, Wrocław 1963, pp. 199-249.
- T. Kozaczewski, *Rozplanowanie, układ przestrzenny i rozwój miasta średniowiecznego*, Prace Naukowe IHASzIT. PWr., Wrocław 1973, No. 5 series: Monogr. No. 4.
- T. Kozaczewski, *Wielonawowe założenia sakralne w trzynastym wieku na Śląsku*, MLSP 1991.
- T. Kozaczewski, *Wyniki badań architektonicznych przeprowadzonych w kościele św. Idziego we Wrocławiu*, "KAiU", Warsaw 1972, vol. XVII, b. 2, pp. 103-132.
- T. Kozaczewski, H. Kozaczewska-Golasz, *Portale trzynastowiecznej architektury na Śląsku*, Wrocław 2009.
- J. Pilch, *Leksykon zabytków architektury Górnego Śląska*, Arkady, Warsaw 2008.
- M. Kutzner, *Cysterska architektura na Śląsku w latach 1200 – 1330*, Toruń 1969.
- M. Kutzner, *Racibórz*, series: Śląsk w Zabytkach Sztuki, Wrocław-Warsaw-Kraków 1965.
- M. Kutzner, *Sztuka gotycka 1250 – 1500. Architektura*, in: *Sztuka Wrocławia*, ed. T. Broniewski and M. Złat, Wrocław-Warsaw-Kraków 1967.
- Y. Labande-Mailfert, *Poitou roman*, 1957.

Town	Church	Chancel	Nave	Nave width	Nave height	Aisle width	Transept	Proportions of the nave cross-section	Tower	Nave erection time
Dzierżonów	parish	width 7.50	x 23.10	7.50	n. b. 12	about 3.30	no	1 : 1.8	-	about 1230
Głubczyce	parish	8.40 x 19.50	23.45 x 23.50	7.35	14.30	6.85	no	1 : 1.94	2 west-ern	3 q. 13 <sup>th</sup> c.
Grodków	parish	8.15 x 16.15	x 21.10	8.70		4.30	no	1 : 1.4	-	1250 – 15 <sup>th</sup> c.
Henryków	Cistercian	width 26.64	basilica	9.47	about 17	4.14	single nave	1 : 1.8	-	2 q. 13 <sup>th</sup> 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	-	4 q. 13 <sup>th</sup> c., 1 half 15 <sup>th</sup> c.
Koźuchów	parish	8.70 x 15.10	12.50 x 21.65	about 6	10.30	about 2	no	1 : 1.7	-	2 half 13 <sup>th</sup> c.
Lubsko	parish	about 4.80 x about 8.50	17.35 x about 12.5	10.70	13.20	3.25; 3.40	no	1 : 1.23	west-ern	about 13 <sup>th</sup> c.
Oleśnica	parish	-	width 15.20	5.20	about 11.20	3.70	1 : 2.15	1 : 2.15	-	1 q. 13 <sup>th</sup> c.
Racibórz	parish	7.55 x 20.75	15.40 x 26.10	4.70	13.45	4.10	no	1 : 2.86	2 west-ern	2 half 13 <sup>th</sup> c.
Trzebnica	Cistercian		-		17.30	8.90	Romanesque	1 : 1.94	-	1268/69
Wrocław	St. Valery	7.80 x 18.60	20 x 28	about 8		4.60 3.90	no		-	1/2 q. 13 <sup>th</sup> c.
Wrocław	St. Andrew	width about 7	14 x 28	about 7		2.10	no		-	1 q. 13 <sup>th</sup> c.
Wrocław	Franciscan	8.55 x 22.05	20.05 x 40.10	8.20	about 14.60	about 4	no	1 : 1.8	-	1232 - 1257
Wrocław	St. Bartholomew	9.40 x 24.00	21.00 x 23.00	9.40	7.05	4.80	9.30 x 34.80		south-west north-west	1288 – 1290 1 q. 14 <sup>th</sup> c.
	Holy Cross Krzyża	9.75 x 24.20	21.50 x 23.80	8.80	18.40	4.70; 4.95	9.30 x 34.80	1 : 2.09	south-west north-west	1288 – 1295 1 half 14 <sup>th</sup> c.
Złotoryja	parish	9.10 x 9.25	x 19.40	9.10	14.60	3.70	8.70 x 27.00	1 : 1.6	2 west-ern	1250 – beg. 14 <sup>th</sup> c.

Table: Hall churches from the 13<sup>th</sup> c.

- L'art roman en France*, ed. M. Aubert, Paris 1961.
- C. Lasota, J. Piekalski, *Kościół św. Elżbiety we Wrocławiu w świetle badań archeologicznych*, in: *Z dziejów wielkomięskiej fary. Wrocławski kościół św. Elżbiety w świetle historii i zabytków sztuki*, ed. M. Zlat, Wrocław 1996, pp. 11-18.
- C. Lasota, J. Rozpędowski, *Pierwotny kościół parafialny św. Wawrzyńca i św. Elżbiety we Wrocławiu*, *Prace Nauk. IHASiT. PWr. No. 6, Studia i Materiały No, 13*, pp. 61-65.
- C. Lasota, J. Rozpędowski, *Rozwój przestrzenny kościoła franciszkańskiego we Wrocławiu*, *Prace Nauk. IHASiT. PWr., No. 15, series: Studia i Materiały No. 8*, Wrocław 1981, pp. 53-64.
- E. Łużyniecka, *Architektura średniowiecznych klasztorów cysterskich filiacji lubiąskiej*, Wrocław 1995.
- E. Małachowicz, *Wrocławski zamek książęcy i kolegiata św. Krzyża na Ostrowie*, Wrocław 1994.
- P. Meyer, *Historia sztuki europejskiej*, Warsaw 1973.
- R. Oursel, *Bourgogne romane*, Paris 1968.
- G. Piltz, *Deutsche Baukunst*, Berlin 1959.
- Z. Rawska-Kwaśnikowa, *Trzy kościoły joannicie na Dolnym Śląsku*, *Spraw. Wrocławskiego Towarzystwa Naukowego, 9*, Wrocław 1954.
- B. Steinborn, *Złotoryja, Chojnów, Świerzawa*, Wrocław 1959.
- S. Stulin, *Kolegiata p.w. Świętego Krzyża i św. Bartłomieja*, in: *Architektura Gotycka w Polsce...*, pp. 264-265.
- Z. Świechowski, *Architektura sakralna XIII-XV wiek*, [in:] *Wrocław. Jego dzieje i kultura*, ed. Z. Świechowski, Warszawa 1978, pp. 102-107.
- Z. Świechowski, *Katalog architektury romańskiej w Polsce*, Warsaw 2009.
- H. Tintelnot, *Die mittelalterliche Baukunst Schlesiens*, Kitzing 1951.

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