The Silesian University of Technology

No 1/2009

RESARCH INTO CHRIST THE KING CHURCH'S ARCHIVES IN GLIWICE VIEW OF THE FUTURE DEVELOPMENT OF THIS CHURCH

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Received: 2008.12.04; Revised: 2009.02.02; Accepted: 2009.02.08

Abstract

The paper is focused on the results of archival research into the history and architecture of Christ the King Church in Gliwice from 1935, derived from the Rectory's annals and other resources, including photographs of construction works, drawings, designs and the data recorded in the Church's Chronicle. The Church was designed by an Austrian architect Karl Mayr, whose other works are also mentioned for the sake of comparison. The study also presents earlier concepts of the Church building designed by Dominikus Böhm and includes the analysis of the architectural form of the Church against the background of other sacral buildings constructed in the 1930s and belonging to Austrian and German architectural circles. Possible future developments of the Church are also discussed, especially in view of the students' competition for the design of a new Church tower imposed by poor technical condition of the present superstructure of the building.

Streszczenie

Artykuł przedstawia badania archiwalne dotyczące historii i architektury kościoła Chrystusa Króla w Gliwicach oparte o zbiory archiwum parafialnego, zasobne w bogaty materiał fotograficzny z lat 1934-35, rysunki i projekty oraz informacje spisane w Kronice Parafii. W pracy ukazana została również sylwetka projektanta świątyni architekta austriackiego Karla Mayra. Opracowanie zawiera analizy formy kościoła na tle innych obiektów sakralnych pochodzących z lat 30 XX wieku i plasujących się w kręgu architektury austriackiej i niemieckiej. Artykuł zapoznaje także czytelnika z prognozowaną przyszłością badanego dzieła architektury w kontekście koncepcyjnego konkursu studenckiego na nową wieżę kościoła.

Keywords: Archival research; Sacral architecture; Architectural form; The interior; Tower.

1. INTRODUCTION

Church buildings have always been landmarks in the silhouettes of towns and cities, shaping them and serving as specific determinants. The main semantic elements of churches are their towers. Nowadays, church buildings are loosing their essential quality in favour of the dissection and individualization of form. Architects are looking for new spatial symbols, new forms of expressing sacrum in the form of churches and chapels. Set against this background, the discussion on the new tower for Christ the King Church in Gliwice poses an interesting issue, not only from the point of view of architecture, but also from the perspective of spatial planning and spatial management of Zatorze quarter, as well as of the whole city of Gliwice.

2. ARCHIVAL RESOURCES

The archival research on Christ the King Church in Gliwice was conducted on the grounds of the resources of its archives, gathered since 1934.

The resources used in the analysis may be categorized into the following groups:

- photographic resources:
- depicting the construction works in 1934-1935,
- depicting the interior in the 1950s;
- drawings and designs:
- fragmentary documentation of Karl Mayr's design dated 1934.
- two concepts of the Church facade proposed by Otto Linder and Theodor Ehl dated 1937,

- design of the Rectory made by Otto Linder and Theodor Ehl, 1938,
- design of the Sanctuary and the Altar by an unknown author, never constructed,
- the design of the interior of the Sanctuary made by Arch. F. Maurer, 1958;
- The design of the Catechesis House made by Arch.
 H. Nawratek, Arch. J. Seweryn, Arch. P. Fischer in 1984,
- the inventory taking of the interior of the Church conducted by Arch. *P. Fischer* in 1994,
- other resources:
- The Chronicle of Christ the King Church's Rectory kept on current basis since 1934,
- MSc. dissertation: Christ the King Church in Gliwice. The history of its construction and its architectural form. Author: Adam Czerwień, Jagiellonian University in Krakow 2003, (text available in a typewritten form),
- Copies of Dominikus Böhm's design contained in:
 "Dominikus Böhm. Geleitwort". S.E.J. Kardinal Frings. Beiträge A. Hoff, H. Muck, S.J., R. Thoma, Münchnen-Zürich 1955,
- documentation on the purchase of three bells from Petit-Edelbrok's bell foundry in Gescher, Westfall.

3. HISTORY AND ARCHITECTURE OF THE CHURCH

The Church was erected at a very fast rate – actually in only 15 months. The following crucial dates are marked in the resource documentation: March 9th 1934 – the completion of the design, April 23rd 1934 – the completion of the documentation, May 30th 1934 – the acceptance of the documentation by the Wroclaw Curia, August 1934 – construction permit, Sept 2nd 1934 – the construction of the cornerstone, April 23rd 1935 – the commissioning of the Church building shell. On Nov 3rd 1935 Cardinal *Adolf Bertram* of Wroclaw consecrated the Church, whereas the Rectory was consecrated in August 1939 [3].

It was an Austrian architect *Karl Mayr* whose design was finally chosen for the construction. However, there had been two other design concepts prepared in 1929 by Arch. *Dominikus Böhm*, the author of St. Joseph's Church in Zabrze.

Böhm's proposal entailed two designs or, more precisely, three – if two options of the first design are taken into consideration. All the designs were characterised by compactness and conciseness of architectural form. Surely, their artistic expression had

been influenced by the pathetic post-war expressionism. The architect perceived the Church building as a stronghold, a place of shelter and refuge for those who wanted to escape from modern civilization. The designs also reflected a certain vision of the aesthetics of the Byzantium, the structures of Ancient Rome, or the austerity of the concepts of the French Revolution architects that had never come into existence. The first design proposed a centrally-located temple on the foundation of the Greek cross, with the bell tower in the form of a wall partitioned by gigantic arcades. The second one envisaged the construction of the temple on an oval foundation topped by a cupola, and surrounded by a ring of tall prismatic chapels. Both concepts, although exceptionally innovative, did not win the acceptance of the Church authorities of Wroclaw Archdiocese, and, consequently, another architect was asked to present a new vision of the architectural form for the Church in Gliwice

Unlike traditional orientation of churches towards the east-west, Karl Mayr's proposal involved a building founded on the north-south axis. Such location resulted from specific urban preconditions, as the site that had been selected for the construction of the church was a 8020 m² on irregular piazza (called: Leipziger Platz) demarcated by: Hardenbergstrasse (nowadays: Wroblewskiego Street), Leipzingerstrasse (Poniatowskiego Street) and Stadtwaldstrasse (Okrzei Street).

The new layout was an elongated rectangle, closed by the Sanctuary in the south, bigger than the whole body of the Church, and enclosed by two annexes, topped by semi-circular apses. The space of the Sanctuary was not separated in the outline, but only in the shell of the Church. The high main nave was supplemented with the low side naves covered with a flat roof, and containing regular shallow breaks in the walls. The whole form looked like a basilica without transepts. The main nave and the Sanctuary had a shared pitched roof. The whole building was made of brick supported by a ferro-concrete structure of pylons and beams.

The monumental body of the Church, together with small widows (oculuses) situated on the ground floor, evoked the image of the hull of a ship, a specific *navis ecclesiae* of those times [7]. The facade was designed as a composition of simple blocks devoid of any decorative details. Its central part, constituting the foundation for the tower, was expressed as two massive elements, creating an in-depth three-door entrance zone closed at the top.

It should be mentioned at this place that there had been a concept of the Church tower that was never built. According to the unimplemented design, the central part of the facade was to serve as the foundation for a slim, 60-m tall tower. Karl Mayr designed a tetragonal form that blends into a narrow cylinder in its upper part, covered by an openwork helmet in the shape of a crown. The central part of the tower was to be cleaved by huge arcade headroom with a cross in the middle. Yet, for financial reasons, the design was not undertaken. The archives of Christ the King Church in Gliwice also reveal two other unimplemented concepts of new arrangements of the facade designed by Theodore Ehl and A. Otto Linder. However, instead of the Church tower, a makeshift, timber superstructure covered by a hipped roof and topped with a cross, was erected in accordance with the design of a town council member, to house four bells (called: "Christ the King", "Mary", "Joseph" and "Barbara") that had been cast in Petit-Edelbrok's foundry in Gescher, Westfall [3]. Unfortunately, on Dec 29th 1941, pursuant to the ordinance issued by the Third Reich's government, the bells were taken over to address the needs of the German Army. Nevertheless, a local inspection disclosed the fact that not all four bells had been handed over. "Barbara" bell is still there, but is not currently used. The examination of the interior of the timber superstructure also showed the presence of some reinforcement bars from the 1930s placed for the construction of a brick tower.

The external body of the Church echoes the expressionist style. The interior, on the other hand, is permeated by a new spirit of simple and functional architecture of the 1930s, born in the environment of Berlin and Bauhaus, with which Mayr must have become familiar at the time of his studies at Berlin Polytechnic. As far as the arrangement of the Church interior is concerned, he certainly had referred to the experience of the liturgical renewal trend. Accordingly, he designed a uniform sacral space compact and clear, fully expressing the concept of the unified communion of the believers. Such an effect was achieved by expanding the main nave and opening it by means of wide headroom towards the side naves, and by raising the wide Sanctuary by two steps in relation to the nave floor. The Altar, to secure the focus of the believers' attention, was also raised by three more steps. The sacral nature of such simple architecture was further highlighted by colour and light. As early as in 1937, the small windows in the side naves were ornamented by stained glass depicting the silhouettes of the Saints, the Church's emblems and scenes from the life of Christ and St. Mary – made by *F. Mayer*, Hofkunstanstalt & Glasmalerei [3].

Apart from the stained glass, other elements of the Church interior also harmonized with its architectural space: in 1935 plain wooden benches were installed, made by *Adolf Eberle* Company; at the same time, the Church was enriched by the Pulpit compatible with its rigid style – founded by baker *Jan Rzepka* and his family. The tree-fold entrance doors designed by *Mayr* were made by *Pawel Panter* and Sons – a company based in Gliwice [3]. The Altar was almost finished for the consecration ceremony; actually, some parts of the old Altar are still kept in the Catechesis House [7].

In 1938 the Altar wall was decorated with a painting showing Christ the King with an inscription: "My kingdom is not of this world" in German, by *Karl Platzek*.

The Stations of the Cross were made by *Hans Wrba* of Wroclaw, as previously they had consisted only of plain crosses. The low reliefs were financed by the workers of the Railway [3].

In the post-war years, the Altar fresco, due to its German inscription, was painted over. In 1955 the Altar of Mother Mary of the Rosary was erected in one of the side naves. The next renovation works took place in 1973 (reconstruction of the Sanctuary – to adjust it to the new liturgy, painting of the walls, the discovery of K. Platzek's fresco). In 1994-95 the Church roof underwent major repair works (the structural boards were replaced and the roof was covered by copper plates).

4. KARL MAYR'S DESIGN SET AGAINST ITS EPOCH

A fair interpretation of Karl Mayr's design of the discussed Church should be substantiated by some facts from his biography.

He was born on May 23rd 1902 in Salzburg. In 1922 he graduated from the National School of Industry in Salzburg. In 1928 he started studying architecture under Professor *Clemens Holzmeister* at the Academy of Fine Arts in Vienna. At the same time, he also worked for George Rupprecht's design office. He later continued his architectural studies in Berlin – Charlottenburgh. In 1930-33 he was unemployed, and, moved to Gliwice, staying until 1938 and running his own architectural practice. In the successive

years of 1938-1940 he lived in Munich, where he was employed in town planning works. In 1940 *Mayr* came back to Salzburg and started working in the Building Department at The Salzburg Local Government. Since November 1945 he was a member of the Austrian Association of Artists, and, in 1953 was appointed to preside over its Salzburg branch [1].

4.1. Inspirations manifested in the architectural form of Christ the King Church in Gliwice

In consideration of Mayr's entire work, there were two artistic environments that had exerted the biggest impact on his output: Vienna and Berlin. Undoubtedly, their influence is reflected in the discussed Church in Gliwice. As far as the Vienna component is concerned, the geometric form of the Church building that manifests the logics of its spatial layout draws from *Otto Wagner*, and, predominantly, from his churches in Steinhof and Währing. Such legible outline of form, derived from the principles of modern construction, opened up a new chapter in the history of sacral architecture and became an impulse for new generations of Viennese architects, among who the greatest influence was his direct teacher – Professor *Clemens Holzmeister*.

By means of a harmonious blend of traditional elements, latest technological advances and new liturgy issues, *Holzmeister* created his own distinguishing style of sacral architecture. This style, dominated, since 1930, by a clear reduction and simplification of form, was consequently reflected in Mayr's design.

There are two Viennese churches that should be recalled here, as they were constructed at about the same time: St Peter and Paul's Church – Dornbach (1931/1937) and St. Thaddeus Jude's church (1924-1932) – both exhibiting the principles of a cubic, simplified form [12].

In particular, however, another of Holzmeister's works of art should be mentioned – located in Mönchengladbach-Waldhausen, Germany, St. Peter's Church constructed in 1928-1933, which seems to be a blueprint of Christ the King Church in Gliwice.

The method of constructing sets of cubic forms is exceptionally similar in both temples. Also, the scheme of the frontal parts with the tower part flanked by two blocks moved to the forefront is almost identical. The only difference is that in the Church in Gliwice this recess was used to contain the main entrance, whereas in the Church in Mönchengladbach – to accommodate a semi-cylindrical baptismal chapel. Another idea derived from

Holzmeister's design was the form of the small windows located around the lower part of the building. As to the facade, *Holzmeister* used clinker brick, whereas *Mayr* brick of a different grade of baking. Taking a closer look at the facade, diagonal traces of a ceramic form may be discernible. Thus, such striking nature of the architectural form was further amplified by *Mayr* with his use of strips of bricks in the ground floor part, echoing the spirit of expressionism, as mentioned before. Both artists were clever to utilize brick, a traditional local material. Both in the Ruhr Basin and Upper Silesia, brick and clinker were willingly and commonly used construction materials, due, first and foremost, to their high resistance to air pollution.

4.2. Inspirations reflected in the interior of the Church

The interior of the Church was designed in the spirit of simple and functional architecture, basing on the principles of the liturgy revival. The form, derived directly from its function, assumes an almost industrial appearance, bringing to mind production shops, which perfectly matches the surrounding Zatorze workers' estate. There are references to the Viennese modernism, as well as Berlin's impulses of Neues Bauen from the 1930s, which *Mayr* must have encountered in the course of his studies [1].

Surely, Clemens Holzmeister's influence had also been significant. The most direct references are the already mentioned Church in Mönchengladbach, Christ the King Church in Kleve, Cardinal Piffl's Church in Gloggnitz and St. Mary Madeline's Church in Brotdorf dated 1931 [12].

Likewise, the church in Gliwice is a basilica with a wide, high nave covered with a flat roof, and supplemented by two, low side naves, also with flat roofing. Another similarity is the sanctuary, brightly lighted through the windows located at the top. Such manner of highlighting the sanctuary was a direct response to the principles of liturgy, emphasising a strong domination of the altar which should be the central part of the Church.

Another principle that *Mayr* had tried to comply with was to secure excellent visibility in the direction of the Altar from each point of the Church, therefore, the main nave was widened and the side naves reduced to functions of passages.

The next important conceptual element was locating the baptismal chapel next to the Church entrance, to symbolise the beginning of the road that every Christian should follow. In the Gliwice Church, the baptistery was placed in the left side nave, nowadays this place does not serve its original function, as it has been moved to the Sanctuary.

The tradition of erecting separate baptismal chapels dates back to early Christianity. Abandoned in the late Middles Ages, it came back after World War One, accompanied by a new, more profound approach to the Sacrament of Baptism. The first architect that adopted such approach was *Dominikus Böhm* in his design of St. Peter and Paul's Church in Dettingen.

Christ the King Church in Gliwice is an excellent reflection of the principles and character of sacral objects constructed at that time.

5. NEW TIMES

Against the background of interwar German Upper Silesia, Christ the King Church in Gliwice seems to be an exceptional masterpiece, due to its conceptual, artistic and historic richness. Embedded in the spatial landscape of Zatorze quarter, it creates a perfect and monumental dominant, not clashing with the immediate neighbourhood, but, on the contrary, blending with the environment. However, the Church is still unfinished. In 1938, due to financial difficulties the construction works ended up with makeshift solutions, and the money thus saved was used to finance the construction of the Rectory designed by *A. Otto Linder* and *Theodor Ehl*.

In the course of its functioning, the Church was never subjected to big transformations of its silhouette, yet, some modernization works and improvements were made. Unfortunately, the makeshift top of the Tower was neglected and is now posing a threat of collapsing. In 2006 *Artur Sepiolo* was appointed new parish priest for Christ the King Church in Gliwice, and, upon recognizing its poor technical condition decided to initiate several architectural and construction works.

Accordingly, the Faculty of Architecture, Silesian University of Technology, interested in the parish priest's initiatives, announced, in February 2008 students' competition for the conceptual design of the Church's tower as a continuation of Karl Mayr's work.

The competition resulted is numerous novel solutions, including the analyses of architectural and urban planning conditions of the immediate neighbourhood of the Church.

The winning design, made by *Bartlomiej Zabój*, was appreciated [6] for its cohesive, uniform and consis-

tent solution, attractive and original modern architectural form and the concurrent preservation of sacral symbolism.

The new Church tower has a form of a prism, simple solid with a rosette in its upper part. The imprints of smaller rosettes provide decoration for the main rosette, as well as for the lower part of the prism. The facade is to be made of ferro-concrete plates.

The analysis of the winning design in view of its excellent blending with the immediate neighbourhood, and already discussed Mayr's inspirations, reveals traces of spontaneous echoes of Clemens Holzmeister's work. The facade with a simple prism identifies with the previously mentioned Churches, especially the one in Mönchengladbach. The tower itself is a reference to Professor Holzmeister's *Maria-Grün* Church in Hamburg-Blankenese erected in 1929/30.

On the other hand, the elements of transparent rosettes refer to the Polish folk art and are popular tokens of modern designs, including, for example, the Polish Pavilion at Expo 2010 in Shanghaj designed by Arch. *Wojciech Kakowski*, *Marcin Mostafa* and *Natalia Paszkowska*. This motif is also often found in artefacts.

It should be emphasised that the public's award granted during the exhibition of the designs organized at the Catechesis House went to *Pawet Szaraniec*, whose proposal is a tower in the form of piled, thin-walled prisms with a motif of an open oculus in the upper part.

6. CONCLUSIONS

The results of the analysis of the archival resources, local inspections and, in particular, due to poor technical condition of the tower superstructure and the students' design competition indicate that the measures to be undertaken should comprise, first and foremost: appointing a team of experts, including: architects, priests, civil engineers, to select a compromise for the solution of the new tower and to protect the present condition of the superstructure. The next stage should involve the design of the final concept of the tower in consideration of the present elements of the façade, including the 1943/45 stained glass above the Church entrance made by Puhl &Wagner of Berlin (the rules of the students' competition guarantee the participation of the awarded students in further design works). On such bases, the engineering design of the tower should consider cutting edge construction technologies, preserving, at the same time,

a historic tissue of the Church. The outcome of the above mentioned measures would be the new landmark in Zatorze quarters of Gliwice, and new aesthetic qualities added to the church building.

Set against a wider context, the issue of superstructure towers for churches is not a precedent in Silesia. Currently, there are two more towers under construction for St. Thomas's Church in Sosnowiec (1905) designed by *Ewa* and *Tomasz Taczewscy*.

Such solutions offering new architectural overtones to sacral structures, often driven not only by aesthetic motives, but also by the requirement of providing extra space for some functions, could become sight-seeing points and future landmarks in the silhouettes of towns and cities, joining history with the spirit of new times.

Part I. Archival photographs of the construction site of Christ the King church in Gliwice, 1934/35:

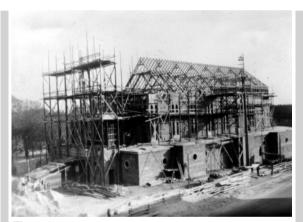


Figure 1.
The view on the Church from Poniatowskiego Street,
August 1934



Figure 2.

The view on the Church from the Sanctuary, 1935



Figure 3.
The assembly of the Church bell



Figure 4. The Apses



Figure 5.
The view on the Sanctuary in construction

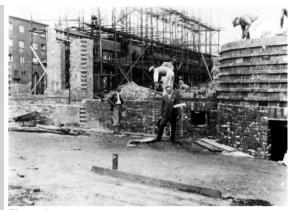


Figure 6.
Arch. Karl Mayr (in the background) supervising the construction works

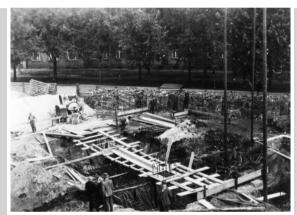


Figure 7.
The construction site



Figure 8.

Arch. Karl Mayr and the Reverend Bruno Pattas at the construction site

Part II.

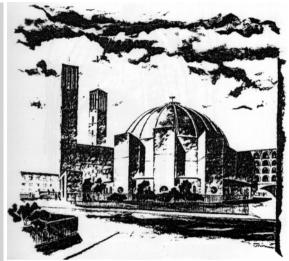


Figure 9. Dominikus Böhm, $\mathbf{1}^{st}$ design of Christ the King Church in Gliwice – option I – 1929

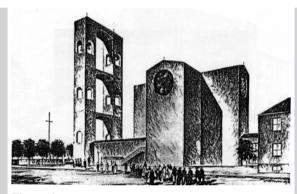


Figure 10.

Dominikus Böhm, 2nd design of Christ the King Church in Gliwice – option I – 1929



Figure 11.

Karl Mayr's concept of Christ the King Church in Gliwice,
1934

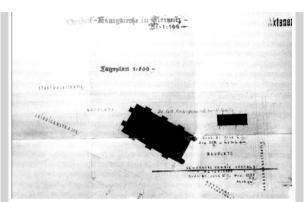


Figure 12. Location of the Church in the Leipzig Square, 1934

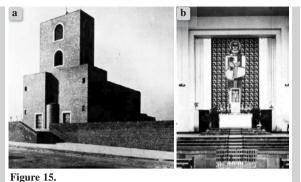


Figure 13. Karl Mayr, Christ the King Church in Gliwice – entrance façade 1943



Figure 14.

Karl Mayr, Christ the King Church in Gliwice – the Sanctuary (1943)



A) Clemens Holzmeister, St. Peter's Church in Mönchengladbach, 1928/33 B) The interior of St. Peter's Church in Mönchengladbach



Figure 16.
Karl Mayr, Christ the King Church in Gliwice, current outlook



Figure 17.
Gliwice, the interior of Christ the King Church in Gliwice – the Altar, current outlook



Figure 18.
Gliwice, the interior of Christ the King Church in Gliwice – the Chorus, current outlook

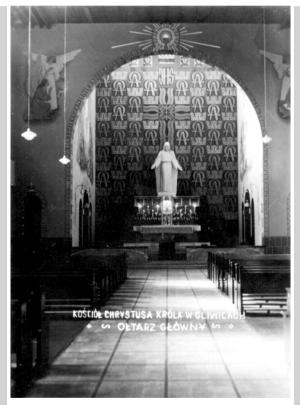


Figure 19.
Gliwice, Christ the King Church in Gliwice, view on the Sanctuary dated about 1955, Christ's sculpture designed by K. Paprocki



Figure 20. Gliwice, Christ the King Church in Gliwice – Karl Platzk's painting, 1938



Figure 21. Gliwice, Christ the King Church in Gliwice, The decoration of the Sanctuary, unknown author



Figure 22.

Expressionist motif on the walls of the side naves with the oculuses

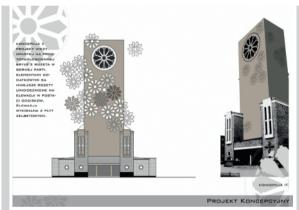


Figure 23.

The winning design of the new tower for Christ the King Church in Gliwice – author: Bartlomiej Zabój, 2008

REFERENCES

- [1] Czerwień A.; Kościół pw. Chrystusa Króla w Gliwicach. Dzieje budowy i architektura. (Christ the King Church in Gliwice construction and architecture). Praca magisterska, maszynopis (MSc. thesis available in typewrite), Uniwersytet Jagielloński, Kraków 2003 (in Polish)
- [2] Czerwień A.; Kościół pw. Chrystusa Króla w Gliwicach. Dzieje budowy i architektura. (Christ the King Church in Gliwice construction and architecture). Rocznik Muzeum w Gliwicach, Annals of Gliwice Museum) t. XIX, 2004 (in Polish)
- [3] Kronika Parafii Chrystusa Króla The Chronicle of Christ the King Church in Gliwice (in Polish)

- [4] Radziewicz-Winnicki J.; Architektura Gliwic i jej przemiany historyczne do 1945 roku. (The architecture of the city of Gliwice and its historic transformations up to 1945). Rocznik Muzeum w Gliwicach, Annals of Gliwice Museum t. XIX, 2004 (in Polish)
- [5] Red. Jodliński L.; Gliwice znane i nieznane (Gliwice known and unknown) Muzeum in Gliwice, Gliwice 2006 (in Polish)
- Members of the Jury in the student competition: Magdalena Żmudzińska-Nowak, PhD. Eng. Arch, Vice Dean of the Faculty of Architecture - Chair; Artur Sepiolo, M.A. Parish Priest; Piotr Fischer, M.Sc. Arch, SARP. Arcadia; Professor Andrzej Niezabitowski, DSc. Arch, Faculty of Architecture, Silesian University of Technology; Professor Jacek Radziewicz-Winnicki, DSc. Arch, Faculty of Architecture, Silesian University of Technology; Beata Komar, PhD. Arch, Faculty of Architecture, Silesian University of Technology; Secretary: Ryszard Nakonieczny, DSc. Arch, Faculty of Architecture, Silesian University of Technology, Archivolta. The Jury presided on May 28th 2008 at the Faculty of Architecture, Silesian University of Technology.
- [7] Szczypka-Gwiazda B.; Pomiędzy Kolonią a Wiedniem historia budowy kościoła Chrystusa Króla w Gliwicach. (Between Cologne and Vienna how Christ the King Church in Gliwice was built) na podst. Kroniki Parafii Chrystusa Króla. Rocznik Muzeum w Gliwicach, (based on the Annals of Christ the King Church in Gliwice) t. XVII, 2002 (in Polish)
- [8] Sowińska J.; Forma i sacrum. Współczesne kościoły Górnego Śląska (Form and sacrum. Modern churches in Upper Silesia). Neriton, Warsaw, 2006 (in Polish)
- [9] Szczypka-Gwiazda B., Pomiędzy praktyką a utopią Trójmiasto Bytom-Zabrze-Gliwice jako przykład koncepcji miasta przemysłowego czasów Republiki Weimarskiej. (Between practice and utopia Bytom-Zabrze-Gliwice cunurbation as an example of a concept o the Weimar Republic industrial city), Publishing House of the University of Silesia, Katowice 2003 (in Polish)
- [11] www.kuria.gliwice.pl (in Polish)
- [12] www.willibaldwaechter.homepage.t-online.de/titel_mfr.htm (in German)