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DESIGNING IN KRAKÓW'S CONSERVATION AREAS (BASED ON SELECTED EXAMPLES OF OWN PROJECTS IMPLEMENTATION)

Abstract

In our country, but also throughout the world, Kraków is considered one of the cities of priceless value due to its cultural heritage and the accumulation of cultural material from the beginnings of Polish statehood. In 1978, Kraków was inscribed on the UNESCO World Cultural and Natural Heritage list. These values oblige the whole of society to comply with generally accepted principles, regulated by *inter alia*, the Act on the Protection of Cultural Property and Museums (on the redesign, overhaul, design, and implementation of new investments in Kraków and other cities which possess unique historical cultural assets.) The main motives to share gained experience and reflections – which may be of interest to designers and contractors – are design and implementation works concerning three different objects, completed and put into use. These two facilities, located in Kraków's strict conservation area of Loretańska and Smoleńsk Streets, are part of St Padre Pio's Works Centre. The third object is the monastery complex on Kordylewski Street. The following publication will signal the methods of substantive cooperation with the restoration and architectural services, as well as the construction companies, in order to nurture the abovementioned values. Consequently, it is concluded that all design decisions in the historic city structures must be thoroughly considered and consulted and, if necessary, subject to verification.

Keywords: cultural heritage, historical values, methods of conservation. conservation methods, architecture archetype, context of the area, architecture details

1. Introduction

With its rich culture, layering continuously for over a thousand years, Kraków is an example of the invaluable resource of material culture at the national and international level. Yet, it was not earlier than 1257, when King Boleslaw the Chaste gave the city of Kraków its privilege,[1] and thus promoted this place of human existence. The accumulation of cultural heritage treasures – the city being a symbol of Polish statehood, the crowning place of kings, and the location of their graves – resulted in the 1978 inscription of Kraków on UNESCO's World Cultural and Natural Heritage as one of the first cities in the world.[2] Luckily, the city survived undamaged during various wars and historical turmoil (such as the Second World War), which ruined many historical cities. Thus, Kraków preserved a distinct cultural continuity. Therefore, stratification of individual epochs has left permanent traces here, including urban planning and architecture.

Residents realised the need to nurture the cultural achievements especially after the Swedish wars in the mid-seventeenth century. As early as then, conservation committees for the protection of heritage were appointed, which intensified its activities, particularly in the period of the partitions.[3]

Hundreds of years later, it should be noted that, after the Second World War (from February 15, 1962) *The Act on the Protection of Cultural Goods and Museums* was in force for forty years. The abovementioned act was only repealed by the current Act of July 23, 2003, or *The Protection and Conservation of Monuments*.

The turning point for Kraków was the construction of Nowa Huta after 1949 – with the applicable requirements of socialist realism in the contemporary reality (and doctrinal praise for smoking chimneys). It was then that a rapid and uncontrolled growth of the city occurred. On the other hand, it might have been controlled in a certain sense, as it was the government's intention to destroy the traditional (in the sphere of history and values) and intellectual high position of the *old* Kraków – clearly reluctant to the new regime. In light of this, the city's population increased from 344,000 residents in 1950 to 716,000 in 1979.[4] As a result of those changes, various trends slipped within the physical structure of the city, such as the dominant social realism, simplified modernism, soc-modernism or post-modernism with different mutations, etc. In this reality of different attitudes and trends, the protection of Kraków's historic section became reasonable and necessary. Due to the concerns and obligations under *the Act on the Protection of Monuments*, all activities in the field of new building permits, renovations, and expansions had to require careful urban and architectural insight.

The scientific community of Kraków can undoubtedly boast of the rich traditions of the Kraków School of Conservation. Out of respect and intentional duties regarding these ideas, the authors of this article would like to share their design and construction experiences. The design and construction examples described here are mainly related

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[1] M. Motak, *Historia rozwoju urbanistycznego Krakowa w zarysie*, Kraków: Cracow University of Technology, 2012, p. 42.

[2] A. Bujak, *Światowe dziedzictwo. Polska na liście UNESCO*, Biały Kruk, Kraków 2004, p. 6.

[3] It was assumed that the individual periods of conservation are distinguished on the basis of Jerzy Frycz's research. From the point of view of the history of conservation, there are five such periods, ranging from 1840 to the last in 1945, [in:] E. Małachowicz, *Ochrona środowiska kulturowego*, vol. 1, Państwowe Wydawnictwo Naukowe, Warszawa 1988, p. 47.

[4] M. Motak, *Historia...*, *op. cit.*, p. 40.

to monastery areas in Kraków, two of them located in Kraków's conservation area. The first building was constructed within the monastery of the Congregation of Minor Capuchin Friars at 11 Loretańska Street. It was created for people lost in life, homeless, and with a variety of personal problems. This building (at Loretańska Street) is the first stage of The Works of St. Padre Pio Help, which resulted from the wide-ranging program; it was implemented in addition to the building at 4 Smoleńsk Street. The third implementation is the building (expansion and modernization) of the existing convent of the Starowiejskie Servants Sisters at 14 Kordylewski Street.

2. The building of the works of St. Padre Pio Help Centre at 11 Loretańska Street

The building at Loretańska Street is the smallest of the three. Its building area is 461 m^2, and the total area adds up to 1080 m^2. It was designed as a bungalow with a basement and a utility attic. The building function is versatile, with an ability to adapt to different needs. The ground floor was divided functionally by separate entrances. It contains specialized outpatient facilities for people with life problems, while the second part contains consultation and psychological counseling surgeries. A multi-purpose conference room, with the possibility of dividing it (via a sliding wall) into two smaller rooms with independent entrances, was situated in the basement. Independent trainings take place there. Administration rooms were situated in the loft. The building is fully accessible for people with disabilities.[5]

The historic complex of the monastery of Minor Capuchin Friars – in particular the direct vicinity of the Loreto house,[6] designed between 1712–1719 by Kacper Bażanka – demanded a thorough analysis of the location with respect to the possibility of building anything there. A few different concepts were prepared, which were later analysed and consulted on during substantive discussions – mostly involving conservators. As a result, based on different visual simulations, it was found that the optimal solution would be to design and locate the facility in such a way that it would interfere neither with the Loreto house nor the monastery building, as seen from different vantage points of Loretańska and Szkolna Street. As a result, the maximum building height was not to exceed 8.45 m at the highest point of the ridge; the building was covered with a hipped standing seam copper roof.

Fig. 1. Building of St. PIO Father Works at Loretańska 11 Street in Kraków. Photo by the authors

In relation to the surroundings and the character of the monastery, the walls were covered with ceramic brick. With reference to the buttresses, which are present both in the monastic buildings and, above all, in the Loreto house, it was decided that this artistic theme would find its continuation in the proposed building. Copper sheeting was used to cover the roof, the exterior walls are made of brick and clinker, and the buttresses and foundation were covered with natural stone.

When viewed from Loretańska Street in the northern direction, the building is barely noticeable; the plane of the roof, taking into account the angle of the slope, can be seen only in a minimized passage.

The whole is complemented by window framing in the colour of natural wood with latticed windowpanes – referencing the local archetype of the monastery complex.

A special element that somehow unites the building with the rest of the monastery is a unified motorised and pedestrian passageway. Two entrances to the building – through the doors built into the monastery wall from Loretańska Street – further synchronize the location, as well as the form of the new facility with the existing monastery. Various positive reviews of the project provide confirmation of the value of the building; the provincial conservator awarded the project the second degree prize in the *Kraków Without Barriers* contest in 2010.

3. The works of St. Padre Pio help centre at 4 Smoleńsk Street

The second building, with a large application program – which is a continuation of the idea of the Works of St. Padre Pio – is at 4 Smoleńsk Street. It partially adheres to the utility buildings of the monastery, and is separated from Smoleńsk Street with the monastery wall extending along the street.

Across Smoleńsk Street, there is a former Museum of Science and Industry building (which now belongs to the Academy of Fine Arts) designed by some of Kraków's recognizable architects – Tadeusz Stryjeński i Jozef Czajkowski. On the western side, there is a neo-Gothic church of the Immaculate Heart of the Blessed Virgin Mary with an entrance through the gate in the monastery wall in Smoleńsk Street; it was designed by Feliks Księżarski. On the southern side, there is a complex of local buildings. The Kraków Philharmonic Hall, located at the corner of 18 Straszewski Street and 1 Zwierzyniecka Street, was designed by Józef Pokutyński and Stanisław Filipkiewicz.
The context of the monastery of Saint Felix of Cantalice

[5] In 2010, the building of St. Padre Pio Help Center received an honorable mention in the architectural competition "Kraków without Barriers" as the best suited to the needs of people with disabilities.

[6] Loreto House in Kraków is a true copy of the Shrine of the Holy House of Loreto in Italy, which, according to tradition, was moved there from Nazareth in the thirteenth century.

Fig. 2. Building of St. PIO Father Works at Smoleńsk 4 Street in Kraków. Photo by the authors

Sisters, as well as the recognized value of the abovementioned facilities, imposed an obligation on the designers for its harmonious inclusion into the urban whole.

The plot area and urban planning analysis at the outset defined the general parameters of the building, especially its length, width, and height. Consequently, its optimal size was determined by the parameters of its usable area 3298 m^2, height of 15 meters to the ridge of the roof, and a volume of 9732 m^3. Conceptual and design work, as in the previous case, were repeatedly consulted and verified with the historic conservator in Kraków. The sum of the various agreements, legal, and formal documents relating to the historic tissue of the city resulted in the architects' effort to take into account the tradition of monastic buildings, as well as to creatively adapt to the requirements (architectural and urban stylistics) of Smoleńsk Street.

Access to the building for cars, vans, and pedestrian passageways extend from the eastern side of the building on Smoleńsk Street. The motorised and pedestrian passageway is five metres wide.

It was built as a detached three-storey building with a basement and an attic. The functions of the building include: the kitchen and dining room, which are situated on the ground floor (with a freezer and food storage facilities); a bathing and clothing stockroom for the poor; as well as two laundry rooms in the basement (one for use by the poor, the other for the operation of the building). The boiler room and heat pumps are also located in the basement (as well as other auxiliary technical and storage facilities). On the first floor, there are diagnostic and treatment surgeries. The second floor, with specially adapted rooms, is dedicated to didactic functions, and serves primarily to qualify people for different professions. Administrative offices are situated in the loft.

Given the versatility of the building (for different groups of needy people), such a solution was adopted so that the building reception staff could easily direct the needy's concerns, so as to avoid complications (such as who needs to bathe, enter the dining room, doctor's or training rooms, etc.).

The building was designed on a rectangular plan; the longer, southern side is extended and completed in a semicircular way. This is the dominant form of the building, as seen in the plan; it perfectly fits communication infrastructure around the building, which (as already mentioned) is accessible for people with disabilities.[7]

Internal communication is adapted to the needs of the building and, at the same time, acts as a fire route, complete with a properly profiled *inverters* for large cars. The building entrances and exits for the poor are located within the walking passageway from the eastern side of the building, separated by a fence for safety reasons. The idea of the entrance to the building from Smoleńsk Street was intentionally abandoned in order to minimize the precedent of obstructing vehicular and pedestrian traffic; it also took into account the fact that the building will be used by people with different backgrounds and often with very complicated pasts. For similar reasons (prevention against possible misunderstandings), three separate entrances were placed on the eastern side. The first entrance leads to the bath area located in the basement and to the medical area on the first floor. The second entrance (the middle one) is provided for users of the eatery located on the ground floor, and beneficiaries of the training room area located in the building on the third floor. The third door, located at the corner of the east fragment, functions as an exit door from the diner.

From the south, there are other doors that could be used as escape doors. On the western side, there is the entrance for the staff. Another one is designed to supply the building with various essentials.

The building was constructed using mixed technology. The basement and the ground floor were made from reinforced concrete technology, while the subsequent floors were built using masonry technology. The ceilings were built from reinforced concrete (based on the external and internal structural walls, and also reinforced concrete pillars in the atrium).

A special element that constitutes the distinguishing aesthetic of the building is its roof – a hipped one, referring to the archetype of a mansard roof. Similar forms of roofing can be found in the Kraków Philharmonic building and the Kraków Academy of Fine Arts.

The dimensions and proportions of the building are the result of panoramic studies conducted from different points of Smoleńsk Street and Planty Park. The view from Planty Park, which is not obscured by the view of the Church of the Immaculate Heart of the Blessed Virgin Mary, was an architectural compositional challenge for the designers. The right shape of the designed building enabled them to meet that requirement, as was the case in Loretańska Street (and the view in the direction of the Capuchin monastery and Loreto chapel).

To meet the compositional priorities, one had to meet the requirements of the external design of the building – by the use of materials that correspond with the environment. On the front elevation (from the side of Smoleńsk Street),

[7] In 2013, the building was declared a building of the year in the *Kraków without Barriers* contest, as the object best adapted to the needs of disabled people in the *Utilities* category.

complementary traditional materials were applied: natural stone in the part of the ground floor, stone window frame work, and clinker brick on the front wall up to the eaves. A characteristic detail fitting Smoleńsk street frontage is the brick crenellation crowning the monastery's wall, introduced as a continuation in the form of a cornice along the entire length of the façade. A stylized mansard roof with dormers lighting the attic space was covered with double standing seam aluminum sheeting with grey spray. Soffits under the eaves were also made from this sheeting. An element unifying the building with its surrounding is windows made of natural wood in dark oak colour, with latticed window panes dividing each window into fields. The windows refer to the historical rhythms of Smoleńsk Street frontages. Finishing details (made in new technologies) significantly contribute to the good integration of the building in the complex of existing buildings.

4. Extension and renovation of the buildings in the convent of the Starowiejskie Sisters of the Blessed Virgin Mary at Kordylewskiego St.

In addition to technical and logistic solutions, the expansion project (and the construction of new fragments on the plan of the former monastic buildings) requires many complex substantive arrangements. The object is located outside historic Kraków and is not subject to direct conservator's opinions. However, although a bit different – it still constitutes a quasi-conservation problem – mainly, the preservation of a particular monastic tradition.

The Sisters of the Congregation of the Kraków Province first chose the concept in the course of numerous discussions and arrangements. Already at the design stage, it was decided that the extension, reconstruction, and renovation of the core part of the building would corresponded with contemporary functional and technical requirements, while maintaining the *archetype* (traditional character) of the monasteries of the congregation.

The object intended for the extension, reconstruction, and modernization consisted of a single building, which, over time, continuously increased by further extensions as the needs of the monastery grew. Technical expertise proved that the complex – consisting of four buildings added (attached) over time – was in very poor condition. A comprehensive project for reconstruction and expansion of the complex was to be done on the basis of the contour of the existing state. As a result of numerous design fittings and substantive discussions with the convent's authorities, a multifunctional building, taking into account the requirements of the present day, was constructed.

The usable area of the building is 1255 m^2 and its volume adds up to 6960 m^3. It is a two-storey building with an attic and basement. The main room (functions related to them) include: a kindergarten; rehabilitation and social rooms for the sisters and for people from the outside; a day-care room; a chapel for the sisters; and the diner for the poor. The primary objective of the expansion, however, was to create a complex of residential rooms for pensioner sisters of this congregation.

Fig. 3. The building of the monastery of the Sisters of Starowiejske at 14 Kodylewskiego St., Kraków. Photo by the authors

In the plan, the building is shaped like the letter T. The *leg* of this letter is oriented in the east-west direction, and the upper part in the north-south direction. The northern part, from the contact point with the new building of the *leg*, is a completely new fragment.

In the basement there are technical areas: boiler room; food storage for the convent and the kindergarten; laundry room; and food pretreatment kitchen; one is for the kindergarten, the other one for the needs of the congregation. In the basement of the so-called *leg*, there is a garage for three cars. The kindergarten is located on the ground floor of the first, second, and third segment. Kitchen facilities are located in the fourth segment, and the dining area, with an independent entrance from the west, is situated in the final part of this wing.

On the first floor of the first segment, there is a chapel for the sisters (with facilities). In the second segment, there are rooms for the sisters. The premises in the third and fourth segment are intended for rehabilitation clinics. However, the final tier in the roof space is completely separate as the residences of pensioner sisters. There are three staircases and two lifts in the building.

The complex is built from traditional brick technology. The walls are covered with clinker bricks. Natural plasters were left in window panes. The distinctive feature referring to the existing building of the monastery is a pent roof on the longer segment of the letter *T* and a pitched one on the *leg* fragment. The plinth of the building is covered with natural stone. Window framework is wooden, and kept in

natural wood colour with glazing bars referencing the remaining part of the monastery. The character of the whole complex retains a uniform colour, and the lighting of the roof with dormers means the new building constitutes a coherent whole with the existing one, including the surrounding garden and pedestrian and motorized passageways.

5. Conclusions

In twentieth and twenty-first century architecture, various trends and concepts clash constantly. They attempt to treat the *contact point* of historic architectural complexes with the need of contemporary spatial, functional, and stylistic solutions, and the character of the construction materials used. We remember what emotions were aroused when I.M. Pei designed the pyramid at the Louvre (completed in 1989) in high-tech modernist style with a contrasting use of steel, reinforced concrete, and stone to the historic context. A post-modern building designed by Frank Gehry, Dancing House (1996) located in Nove Mesto in Prague, turned out to be a similarly bold experiment. These discussions will probably still be current topics in various specialized scientific forums.

In the case of the constructed buildings presented in this article, the authors tried to respond to the modern challenges as far as constructors' and implementing possibilities permitted, considering first of all the context of a historic site.

We would like to finish with a quote from an interview with the Chairman of the Lesser Poland Regional Chamber of Civil Engineers Stanislaw Karczmarczyk, who, when asked what message he would like to refer to civil engineers, answered: "To care about what our predecessors did. The value of the object in that it is original and not only turned into a "more modern" one becomes meaningful over time. I encourage you not to look at the "shabby" buildings as at an obstacle to new investment, but to try to discern the values that reside in them, and only then decide whether they interfere or can be incorporated into a new substance. This applies to designers and investors, but the role of the engineer is not to be underestimated here".[8]

The authors of the paper ensure that during the design and construction of the abovementioned buildings, they consciously chose methods referring to historical fitting with an architectural form into the existing context of a historical site. Applying such design techniques does not mean disavowing other innovative solutions in the structures of historic towns.

[8] M. Wodzicki, *Zabytki uczą pokory*, an interview with Ph.D. Stanislaw Karczmarczyk, Chairman of the Lesser Poland Regional Chamber of Civil Engineers, Member of the National Council of Polish Chamber of Civil Engineers, Inżynier Mazowsza No 2 (420), April 2013, pp. 8-9.

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