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Original Research Article

BUILDING RESTORATION OF HISTORIC POOL IN BOLESŁAWIEC: ASSUMPTIONS, DESIGN, REALIZATION

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Abstract

The present elaboration describes realization of project task, entitled: „Retrieving old function in historic swimming pool, at 52 Zgorzelecka street in Bolesławiec", it has an influence with taking into consideration the most important problem on ultimate form of rebuilding, on base of present project done by the author of article, as being producer and planner at the same time. It emphasizes architectonic questions in text, concerning forming area, however, it omits solutions of numerous engineering problems (e. g. isolation and draining, etc.). Work project started at the end of 2010 and finished in February of year 2012. Object is in the course of final construction works.

Keywords: renovation, maintenance, swimming, Bolesławiec, monument, transformation

1. INTRODUCTION

This study provides a description of the project task, called "Restoration of the former function of the Bath Department in the Historic Swimming Pool in Bolesławiec, at 52 Zgorzelecka street", including the major problems affecting the final shape of reconstruction. The reconstruction was carried out based on the project by Mgr. Eng. Arch. Rafał Dudzik- chief designer and also the author of the article. The text highlighted architectural issues concerning the shaping

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of space, but omitted-solutions to numerous technical problems (e. g. insulation and drainage, hydrophobising, etc.).

2. HISTORY OF THE BUILDING

The building of the swimming pool in Bolesławiec was built in two stages: bath building was completed in 1895 (part of the complex from the Zgorzelecka street), while the swimming pool building, which forms an extension, one accomplished in the years 1913- 1915. The impetus for the construction of the facility was the establishment of a representative city promenade in the city's ancient fortifications, destroyed during the Napoleonic Wars. Promenade was laid out by the decision of the Magistracy and the Embellishments Society founded by it. One then built in Bolesławiec many private villas and houses, and representative public buildings, among them the exclusive city baths, completed thanks to the financial support of Kessler's counsel in the Italian Neo-Renaissance style. Subsequent expansion of bath with pool part, led to the creation of City Bathing Departments: the object of extensive functional program, which consisted of i. a. .: modern (for that time) steam bath, fitness room and swimming pool measuring 20 x 10m. An interesting extension of the early twentieth century was the inclusion in the body of the building fifteenth-century stone tower, which is a fragment of demolished city walls in this area. During operation, the building has undergone many transformations. Immediately before design works, object existed as a city swimming pool, located on the western edge of the old city, between urban promenades. Its shape consisted of four parts:

- three-storey, basement at Zgorzelecka street, containing the rented premises in the ground floor and basement, and upstairs gym
- four-storey, basement with non-usable attic, with an entrance from Szkolna street, containing rooms of bathing department in the ground floor and upstairs, and the non-usable rooms in the basement and in the attic,
- dominant over the whole, four-storey, basement section containing the swimming pool rooms in the ground floor and on the floor, and technical subpool in the basement and technical attic above the pool hall,
- three-storey, under basement connector containing the main entrance to the bathing department from the Urban Plant side, entry zone in the ground floor, offices on the first floor and technical rooms in the basement.

The main swimming pool wall housed only basin of reinforced concrete construction with ceramic lining and antique low spillways of Wiesbaden type, as well as Finnish sauna cabin, showers and toilets. Locker rooms functioned as historic, as two rows of temporary cabins: one-along the pool basin and the

other on the mezzanine hall. Part of the mezzanine was separated from the hall to be used for a conference room. In the facility functioned gym on the first floor and solarium cabin with a beauty salon on the ground floor. Many areas of the building were occupied by office rooms.

3. DESIGN OBJECTIVES

The Investor's expectations of Bolesławiec Municipality, reconstruction was to lead to the functional and technical modernization of the facility, and so bringing it to fulfil its original function in accordance with modern standards, and to modernize and enrich its functional program with new elements:

a. recreation and rehabilitation swimming pool and three mini pools of Jacuzzi (including one with saltwater) with an extensive saunarium zone, cooling and leisure zone and a sauna of a "sunny meadow" type, preceded by the proper pool locker rooms with washbasins and toilets, also for disabled people; on the ground floor and the first floor of pool hall
b. wellness area with offices for a variety of rehabilitation, recreation and proactive-health treatments, including the salt cave
c. a fitness area, with a gym, "cardio" hall and gymnasium, as well as with changing rooms and washbasins
d. convenient communication system in a building that provides people with disabilities to all facilities for customers of The Bath Department, with a ramp for the disabled at the main entrance to the building and a lift for the disabled inside, and the assembly of electronic customer service system.

The building also provides office space separation zone in attics and technical rooms area in the basement.

Given such formulated functional-usable program, in the facility one formed separation of access areas: a public area: the lobby and ticket offices in the ground floor, pool area on the ground floor and mezzanine in the main pool hall, and the zone of fitness and wellness on all floors of the building. For the integration and operation of the latter one scheduled construction of a new staircase and lift connecting all floors of the building in the area. Communication between the zones was to be controlled by an electronic system of customer service, allowing visitors to use the various attractions of the object.

4. DESIGN WORKS

The final shape of the project devoted to the implementation turned out to be the result of many necessary compromises between the investor, designer and

conservation authorities, which, despite its dominant position sometimes took into account the designer's opinion and investor's expectations, which can be exemplified by consent to the installation of modern basins of stainless steel and, hence, resignation, in the pool basin, of non-functional lower flows to the modern type of Finnish flows.

Fig. 1. Plan of the basement, ground and first floors of the building (bottom to top) - the original concept illustrating the distribution of planned functional zones in the facility (*based on the conceptual design - from the author's archive)*

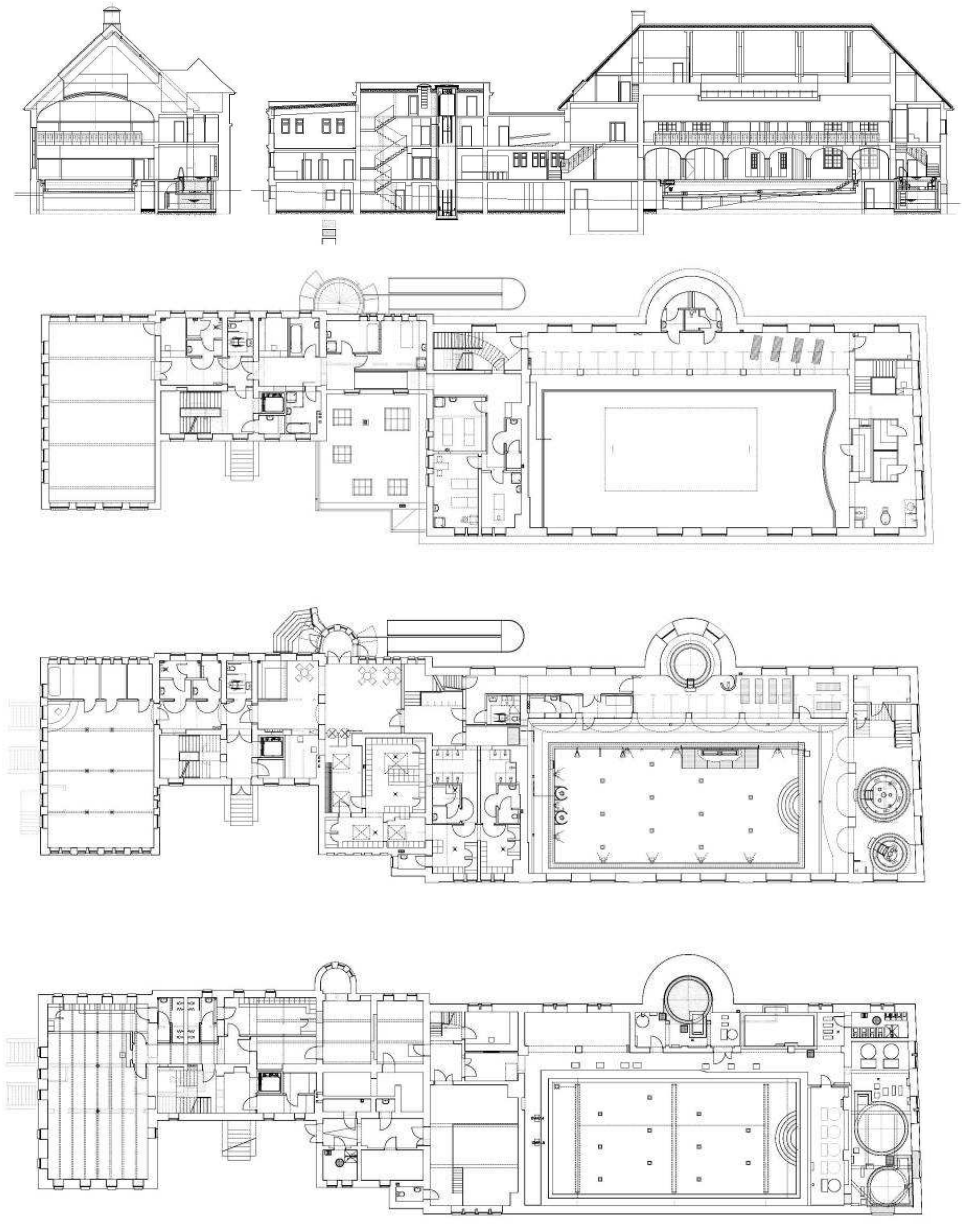

Fig. 3. Plan of the basement, ground and first floors of the building, and cross-sections - version put into implementation (*based on remodelling construction project - from the author's archive)*

The problem was a scarcity of usable area of the existing building to the established application program. Therefore, part of investor's expectations was not carried out, and some was, but as a compromise and that could raise some doubts.
A major problem occurring at the planning stage of the project turned out to be insufficient recognition of its existing state. In part this was the result of the start of project works even during functioning of the facility. Also provided inventory did not meet expectations and forced the design team to create their own inventory, parallel to conducting design works. Full identification of the building structure was practically only during the building works, as the result - a large part of project works was done under the author's supervision.
The reconstruction of historic buildings is often impossible to meet all technical and building regulations, especially concerning fire protection and sanitary and hygienic regulations, and health and safety regulations. This forces the designer to ask the competent authorities about granting consent for replacement solutions to compensate for non-compliances which cannot be removed. In the case of the object list of non-compliances included, among others: lack of required fire load-bearing capacity of the roof structure, the lack of the required width flow of existing staircases and height of the steps, the lack of the required amount of historic railings of the stairs and mezzanine, and insufficient heights of some rooms. During the construction works one also found that the ceilings did not guarantee the fulfilment of the fire requirements, which was solved by protecting them with the method of fire spraying.

5. CONSERVATION ISSUES

The most important project task was to refer to the historic character of the interior of the main pool hall, while subjecting it to numerous transformations. The interior kept its original layout in most part. There were also retained historic elements shaping its decor, including in particular:

- significant artistic decoration of the walls of the burned-out ceramic tiles, forming plinth of the height of approx. 2m in various shades of green, also including columns and pilasters of arcades of the ground floor and mezzanine,
- skylight above the pool basin in shape of rectangular, adapted in shape to cradle ceiling of hall, with colourless glass panes surrounded by decorative frames with sheets of blue, red and orange,
- forged mezzanine railing and stairs of openwork structure with wooden handrail,

- sandstone wall panels with a relief multiform decoration, and two terracotta plaques depicting a seahorse and a cormorant.

These elements required a full technical and aesthetic maintenance, the most important was the maintaining of a beautiful ceramic wall lining, as an element having the greatest impact on the character of the interior. However, assuming lining to be left intact, one failed to avoid minor construction intervention caring with it the need to recover many of its elements, based on the prepared documentation.

Fig. 4. Head of the pillar ceramic body of the ground floor arcade in the pool hall (*photo by the author*)

It was decided as much as possible to store and retrieve valuable features of the historic building interiors, especially by exposing the beautiful decor of dark green tiles in the pool hall. Here, one used bright colours plaster, against which the tiles were strongly contrasted.

Contemporary elements, designed in a minimalist approach with neutral colours, including first and foremost: elevated railings of structural glass (not blocking too low, historic existing railings), sections separating rooms at the pool hall of construction glass, pool basins made of stainless steel, accessories and devices (e. g. in a cooling zone) made of a stainless steel. Much discussion has sparked the proposed elimination of the historic basin with bottom flows of "Wiesbaden," type and with ceramic cladding for modern and low-maintenance basins of stainless steel. Conservation considerations spoke in favour of maintaining the historical solution (which was decided, for example, with a similar reconstruction of the historic swimming pool on Teatralna Street in Wroclaw), but a solution was found to be non-functional and even dangerous, due to the significant difference in the level of the water and the pool beach. Finally, due to the planned radical reconstruction of the basin: the shallowing

(resulting from the reassignment of a swimming pool for recreation and rehabilitation purposes) and equipping with numerous attractions and illuminations, it was decided to apply new solutions instead of remodelling the old and non-functional, which was approved by conservation authorities. Similarly, discussion issue turned out to be a proposed liquidation of antique lockers boxes both on the floor and in the ground floor, which persuaded Regional Monuments Conservator stressing that it will serve exposing arcades of the mezzanine and producing spatial qualities of interior, especially when using proper illumination. A significant decision for the new character of the interior turned out to be the unveiling of a stone wall surface inside of the tower at the planned saline pool. Another arguable design concern turned out to be the shaping of the pool beach. Existing floor of the historic hexagonal tiles was completely eliminated, due to the installation of new steel basins, strengthening the ceiling and the need for effective, modern isolation of waterproof beach. In addition, there was a general change in the level of floors in the building, resulting, among others, from running new installations there. Therefore, the new system of floors beach was designed, with multi-coloured square pool tiles, a figure emphasizing arcade character of the interior and layout of the main circulation areas. Here, however, conservation authorities proved to be inflexible, deciding to reinstate hexagonal tiles floor while accepting its assumed concept, which put a difficult task for manufacturer of custom tiles (the need to ensure high anti-slip performance), a designer and especially-contractor.

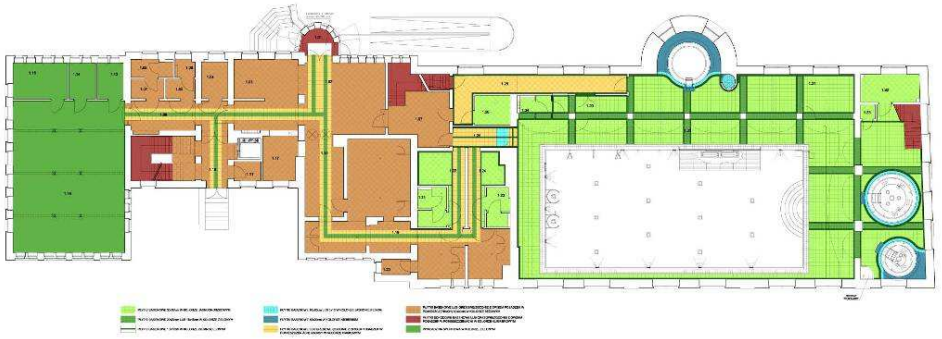

Fig. 5. The planned ground flooring (*based on executive design of remodelling - from the author's archive)*

When designing outside colours of the house, one planned minor modifications, to the existing ones, with the change in tone of the pink to the "salmon". All cornices, window frames and other items of a similar nature were planned in shades of light gray and sand colours. One planned cleaning, maintenance and

supplement of clinker and stone facades. On parts of the facade devoid of architectural detail one planned its implementation of foamed polystyrene, referring to the existing part. One designed replacing the plain tiles over the indoor swimming pool with “ancient Romans" tiles, and the exchange of tin helmet cover over the "tower" of the main entrance, the exchange of tin processing, gutters and downpipes, introducing copper sheet everywhere. With reference to the preserved front door from Szkolna street, one designed a new main entrance door from the garden, wooden panelled profiled, placed in existing door, modern, glass PVC construction. One planned the replacement of all windows in the building and insertion of new wooden ones with the section in accordance with the historic state meeting modern requirements of thermal insulation. The only new architectural element designed on the outside of the building is a ramp for the disabled at the main entrance from the promenade.

6. CONCLUSIONS

Summing up the work on the issue of restoration of the historic swimming pool in Bolesławiec, it is worth presenting the conclusions drawn from it. The most important are those that relate to the causes of successes and failures in the implementation of a complex project, which is the reconstruction of the historic building.

According to the author, among the many valuable factors here, the most important is a full familiarity and understanding of form, function and design of an existing object, then the subordination of implemented solutions of major idea, which is achieving a harmonious and fully integrated whole of existing and newly designed elements. This applies to both technical details and general solutions of functional and spatial and formal. One puts before the designer a requirement of humility and understanding of their role, in an only sense "associate of chief designer," who remains the creator of an existing object.

The second factor in order of importance, is the harmonious co-operation between people with influence on the final shape of the realization: the designer, the investor represented by an "engineer of the contract", the conservation authorities and the contractor. In this group of people, the designer should gain the confidence to be able to act as a "referee", thanks to which it is easier for him to convince others to solutions which are favourable from the point of view of the whole design task. To achieve this goal one obviously needs both: experience, talent and roofing expertise, as well as political talents. But even their absence can to some extent compensate for the reliable operation over the full knowledge of the existing facility.

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RENOWACJA ZABYTKOWEJ PŁYALNI W BOLESŁAWCU: ZAŁOŻENIE PROJEKT REALIZACJA

S t r e s z c z e n i e

Niniejsze opracowanie stanowi opis realizacji zadania projektowego, pod nazwą: „Przywrócenie dawnej funkcji Zakładu Kąpielowego w Zabytkowej Pływalni w Bolesławcu, przy ul Zgorzeleckiej 52". Uwzględniono najważniejsze problemy mające wpływ na ostateczny kształt przebudowy. W tekście uwypuklono zagadnienia architektoniczne, dotyczące kształtowania przestrzeni, pominięto natomiast rozwiązania licznych problemów technicznych. Opisano wstępne założenia projektowe, wynikające z Programu Funkcjonalno Użytkowego i ustaleń z inwestorem, przedstawiono pierwotną koncepcję oraz wersję końcową oddaną do realizacji. Opisano problemy projektowe, ze szczególnym rozwinięciem tych, które dotyczyły zagadnień konserwatorskich. Przedstawiono wnioski, w tym przede wszystkim konieczność wczesnego i pełnego rozpoznania stanu istniejącego zabytkowego budynku poddawanego renowacji.

Słowa kluczowe: renowacja, konserwacja pływalnia, Bolesławiec, zabytek, przekształcenia

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