

# Integrating of the historical complex of a former foundry and engineering works Vaňkovka into a commercially social centre Galerie Vaňkovka - Brno

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**Abstract—** Searching of new utilization of historical industrial complex is usually very demanding and largely depends on the greater context of the urban planning and architectural, economic and social factors. The structures with the characteristics of a hall are particularly suitable for the purpose of the social events, which is rather difficult in case of the facilities of civil character located in the historical city centres. In order to clarify this issue here, there is presented the conversion of an industrial facility in Brno of the authors Petr Hruša and Petr Pelčák.

**Keywords—**historic industrial facility; iron foundry; engineering works; crane runway; commercially-social centre

## I. HISTORICAL CONTEXT

A conversion of the industrial sites and buildings is generally a combination of several methods of work with the material in the experienced way of craft, and implementing proven structures newly created and changed premises and for public purposes. Such an intention requires the construction work research indicating historically valuable constructions and parts of the premises, then a detailed proposal of the construction is processed, not only a volumetric study with the implementation of the new structures into the premises. A partial demolition and cutting are unavoidable, and also they must be always furnished with the new technologies ensuring the compliance with the contemporary demands on the internal convenience of the environment of the buildings and others. Finally, the aesthetic factors are also required. This is happening with outbuildings or conversions.

The subject of the integration of the protected monuments of the premises Vaňkova into a shopping centre (December 2001) the detailed documentation of the reconstruction of historical landmarks in the area Vaňkovka was processed based on the professional assessment and recommendations of the National Heritage Institute in Brno, as of January 2002.

Postindustrial buildings which no longer serve the function for which they were initially designed and are

of a time whose values and aspirations are difficult to communicate. Subject to negative preconceptions, they are commonly viewed as nothing more than obstructions, and for many who lived in their vicinity in recent years as the source of bitter experience. But concealed beneath the layers of human activity they contain valuable information about the values of the past, values now being lost, and this is the focal interest of the newly developing field of "industrial archaeology." [1]

The construction plan of the commercially social centre of the entire block of houses defined by the streets Úzká, Zvonařka, Trnitá and Plotní was under the monument protection and as a whole it was located in the the protection zone of the Urban Monument Reservation Brno - proclaimed on April 6, 1990 by the Decision of the Culture Department MMB under file no. KULT/402/90/Sev. The construction of the new complex expected the integration of the premises of engineering works and the foundry Vaňkovka, which is situated in the southern half of the block covering the area of 2.2ha. The complex is the registered Historic Landmark in the Central List of Cultural Monuments under the index number 8455.



Fig. 1. Entrance from the Úzká street.

## II. THE COMPLEX OF THE ENGINEERING WORKS AND A FOUNDRY VAŇKOVKA

The complex Vaňkovka was established on the turn of the 19th and 20th century, and in those times it represented a typical industrial architecture, for its look and the care of detail representing the cultural level of the builder using the facing bricks variably in detail. The other buildings were slowly added to the complex in the historicist style until about the half of 20th century. The high-quality architecture and for its time generous solution of factory complex was swapped with the utilitarian constructions in the postwar period.

The principles of the integration of the historical grounds into the commercially social center Galerie Vaňkovka.

(The accompanying report of the authors Hruška&Pelčák as of...):



Fig. 2. Courtyard with an outdoor gallery

The abandoned industrial complex has not disappeared and it has not been liquidated by the new building. The most substantial parts of the complex have been maintained, and these declare the monument value of the original buildings, they show their original construction, material and even its processing, including the spatial lay-out. The bad technical condition of several constructions was the reason for their partial removal. Integrating of the objects and the authentic structures, to such an extent that it had been designed in a study on the integrating of the complex into a new development area in the centre, the proposed communication outline of the centre in the shape of the cross, dividing the area of the urban block by two direct strokes of the main internal communications) in the direction north-south and north-west does not change the frame of the monument substance of the complex. The direct routes of the main internal communications are defined by four volume segments in connection with the maintained inner communications and objects. The proposal changes the urbanity of the block and even of the former factory. However, due to the fact the internal communication were designed with

sufficient spatial parameters, the division into blocks can be considered as a solution corresponding to the measure and the size of the segments to the buildings site. New Street, proposed in the north-west part of the block substituting the planned street Mezinádražní separates the independent block of the complex (it is not a part of the building of the company ECE).

The urban (spatial) the parameters and authentic historic environment of the protected complex Vaňkovka is kept in the south eastern part of the complex, where the original buildings of engineering works and administrative building, the large part of the building called "jádrovna", part with changing rooms of the foundry and a part of peripheral masonry of the foundry foundries are kept. In the original track there is the inner road between the engineering works and foundry including the fragments of the crane track. The entrance area to the complex between the building of engineering works and foundry is also kept in the original form in the maximum extent possible. Redeveloped parts of the buildings will be left where possible and advisable in view of the function of the space to keep, indicated on the layers of the floor, like the track of the the original structure.

At the southern border of the protected area, in the space of the entrance of the inner street of the centre into the street Zvonařka a conflict with the part of the modelling workshop was dealt with. A façade is maintained on the building, it is implemented into the new front of the building. Supporting peripheral constructions, which cannot be maintained for operational reasons (collision of the pedestrian traffic and vertical communications), spatial (completely different design heights of new development and the existing object, which could not be established in the existing height of the ceiling structures, inadequate with the standard requirements) and static (after rehabilitation of the internal built-in frame, removal of later adaptations of the window gaps, outbuildings and completions would be considerably demanding and costly to restore the construction as such not to create just worthless replica, but new masterpiece) were designated in the floor.

According to the requirements of the Institute of Monument Preservation in Brno it was possible to examine the alternative solution of the crossing of the main internal communications by other than the circular plan for preserving the values, which allowed higher level of structures conservation or parts thereof. Decentralisation of this space was unacceptable for the construction due to the operational reasons, based on the experience of the investor with a number of more than 60 commercial buildings. An alternative solution of the entrance to the main inner communication at the street Zvonařka, especially leading this main inner communication along the object of the modelling workshop, was examined in several options, attached in the graphic part of the study. The options were unacceptable in the design, due to the operational or other reasons,



and therefore, it was not possible to follow them further.

The recommended alternative solutions of the space between the hall of engineering works and a torso of the hall of the foundry, where the crane track was kept, were incorporated into the project. The internal street is thought to be a quiet zone without car transport, only with the time limit supply.

The graphic design strictly differentiates the authentic material of the vertical structures and the construction of a new material. In the parts of the new building connected to the preserved objects and the constructions the façades materials of the similar character as the original walls were used (ecru facing masonry, ceramic tiling, etc.)

Due to the involvement of the own structures and the related functional demands of the construction to the organism of a city it was necessary to document in the design the part of the traffic solution and its evaluation of the impact on the pedestrian, car and urban public transport. For a comfortable involvement into the urban transport structure commercially substantial entrances have been found for the supply and the ramp entrances to car parking areas on the upper floors. These have been dealt with parking on the roof and the supply entrances, so that it bothers the pedestrian traffic area in the complex Vaňkovka at minimum.

In addition to the preserving of the individual objects, or parts thereof, also the space and structures forming the frame of the monument substance of the complex were kept. The administrative building, which remained the property of the city, was completely kept and it has been restored according to the independent building program of the company Jižní centrum Brno. The shell and fill of the holes and even the roof have been redeveloped in their original forms. The construction of the engineering works was restored for the new function of the city centre for art and culture, originally for science and research. The renovation of the administrative building and engineering works was financed from the income from the sale of the remaining part of the premises to the company which implemented the construction of the shopping centre.

The complex of machinery and metallurgical works dating from 1865 was threatened with demolition twelve years ago. Later, it was proclaimed an architectural landmark and the decision made to reconstruct it within an eye to its integration to the urban fabric. The reconstruction has respected the single-hall layout as well as the salient details – riveted grids, crane hook etc. exterior changes were limited to façade cleaning and the addition of new entrances, many windows in the exposed western facade were extended to ground level. Underscoring the industrial atmosphere and the materials used: steel, concrete, wire-reinforced glass, steel mesh, rough whitewash, exposed piping, as well as the restored crane [2]

The area between the hall of the engineering works and a torso of the hall of a foundry is designed as the pedestrian quiet zone with limited entry for supplies and with the exclusion of the other transport. The area is considered as the centre of gravity of the torso of the protected monument premises. The possibility to connect the communication in the street Zvonařka was implemented.

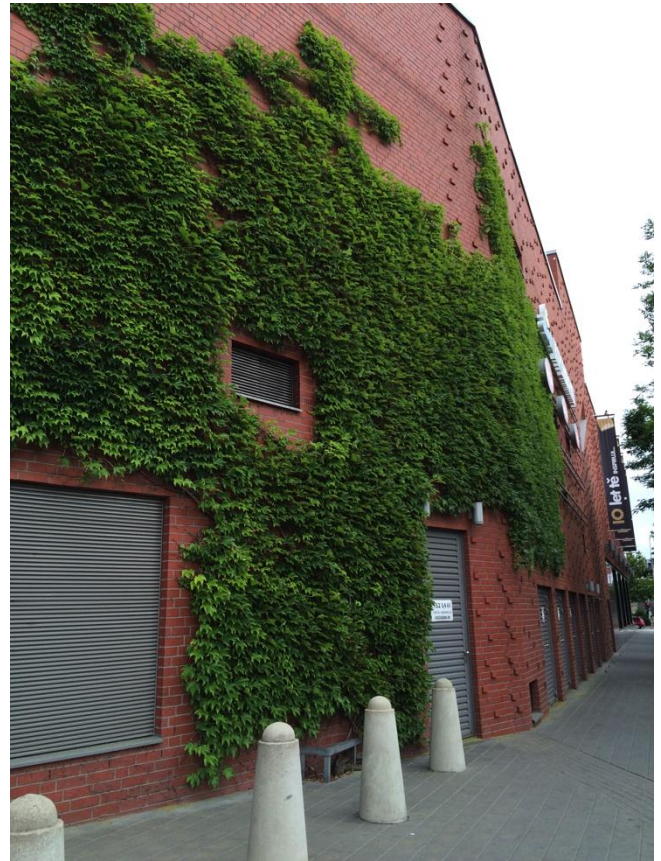


Fig. 3. Exterior green wall

The vast majority of the premises of the old foundry formed by the added halls erected within the years 1890, 1896, 1938/39 were decontaminated due to their emergency technical condition and the contamination of the construction.

The north east corner is maintained and in its entirety it is restored with the authentic vertical structure.

The premises of the foundry and the south east corner of the part called "jádrovna" are reconstructed and kept in their existing shapes as the authentic entrance to the centre, keeping the frame of the monument substance of the complex, urbanity of the block as well as the former factory.

The closure of the outdoor entrance area and roofing of the following east-west traverse corridor of the new building is solved in a way that the original peripheral wall of the foundry was left in the outer part facing to the street.

The new shell is situated and architecturally solved in a way to reveal the original authentic frame of the complex.

The building of "jádrovna" was mainly preserved and used as the attractive area for gastronomy and a market.

At the south-west corner of the hall there is almost the whole front authentic vertical construction preserved and restored in its entirety except of the angle pillars, which collides with the central circular area of the new building. The track of the structure is indicated in the stepping layer of the floor.

The window holes are kept completed by renovated, or new centres according to the original construction.

The eastern part of the complex has not been preserved due to very poor condition of the construction, demanding decontamination and also due to the collision with the proposed structures and operational arrangement of the commercially social centre.

The crane track is presented in the fullest possible extent, which was determined on the basis of the street layout as for as their width and detailed solution of the reconstruction of its individual elements.

The vast majority of construction has been preserved.

The implementation of Galerie Vaňkovka is solving the integration of the historic buildings together with the preserving of their physical base and the spatial parameters. The aim of the authors was to keep the given scale of the complex, although historic premises are largely integrated into the body of the main building with commercial operation. However, they respect as well the footprints of the former factory communications, and to the maximum extent possible. We can judge so according to the multi-annual observations also in terms of the amount of public interest in this architecture. Vaňkovka as the new gallery serves as a presentation of the approach to the contemporary and economically as well as aesthetically functioning building representing conversion due to its working scale and commercially social character. Such an example of the unique complex of the protected monuments the approach of the contemporary art in the historic environment can be demonstrated.

In terms of monument protection Vaňkovka is a compromise, but positively looked at, and between the strict protection and returning of the monument into life with maximum demands on economics as well as the the level for the current use of the monument and consequently, of the newly planned development of the Southern centre of Brno.

Let's get back to the question of the new architecture and the historic environment. The current monument care works with the principles of context of the new architecture and the historical environment, and also the contrast, juxta position, layering and other composition solutions, whereas these architectural approaches are integrated with the

analytical, synthetic or preservative methods of the care of monuments. Problems are often hiding not only in the monument care or architecture, but in the legal, economic or political sphere, in the extreme economism and legal formalism. A dialogue between the monument care and architectural scene may be one of the sources of this knowledge. The ambivalent and complex discourse represents an important area for the critical and open way of thinking that should lead to seek the ways to the repair and it should be fundamental ideological prerequisites for further development of our cities.[3]

### III. CONCLUSION

It is the first building in the part of the Moravian architecture of this size finalised in the urban contexts, and on the contrary to the expectations better compared to the other shopping galleries in the cities, because it allows connecting different parts of the southern centre, thus permeability of the territory reasonably within the possibilities and the establishment of new urban links. So this is also proved by the street and a small piazza around the entrance into Vaňkovka and area of the complex Trinité (architects Hruška spol., Atelier Brno, s.r.o.) Vaňkovka, originally looked at as "not more than a shopping gallery" creates the overall impression of the place, and in particular by its own arrangement, urban profiles around the historical core, areas for newly considered station and thus connected developing centres of the construction for a new city. The construction itself and its new volumes integrate into the historic environment in different links of the old and the new, and thus it is able to achieves rarely the unity of differentiation of this complex and the currently understood architecture.

The story of Vaňkovka does not finish here: quite opposite. It continues, and it is a glorious resurrection. For the first time in 160 years, Vaňkovka has changed its function, in parallel, it has expanded. Vaňkovka has preserved both its memory and its name, which will once again be on the lips of thousands of people every day. . [4]

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