

Latest Trends and Experience with Renovation of Modern Architecture Monuments in Slovakia

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Introduction¹

In recent years discussions increased about the problem of endangered post-war architecture that cannot be protected by legislation (except of a few examples) because of the recent time of its erection, general disesteem of its values and necessary collision with the Author's Act. Our contribution will be addressed in preference to the Functionalist architecture of the interwar period. After a long period of professional discussions, these buildings have finally gained a reputation and irreplaceable position in the heritage list of Slovakia. At the present time their values are already guaranteed and that is why they have received the status of building monuments as the integral part of cultural heritage. Nevertheless, the representation of modern architecture in the heritage list is still minute in comparison with older historical architecture. One of the reasons of this situation is a fact that these special buildings are problematical not only from the aspect of their authentic architectural, artistic or technical values preservation but also because of a fact that they were built during the era of the first Czechoslovak Republic and their authors were almost exclusively the architects of non-Slovak origin. Missing pride in "non-Slovak" buildings and their authors consequently brings about low sensitivity and a lack of respect from their current users.

Nowadays there are registered circa 250 monuments of Modern Movement architecture protected by legislation. It is less than 3 percent of the total amount, but the number of them has a still increasing tendency. The interwar period was completely assessed also thanks to the organisation of DOCOMOMO, which has in cooperation with The Monuments Board of the Slovak Republic built up the National Register of Slovak modern buildings. In addition, the Institute of Construction and Architecture of the Slovak Academy of Sciences continuously develops the Register of the most endangered works of modern architecture. Published online, this Register contributes to their promotion and has a positive influence on public opinion.

Even though the specific sphere of Functionalist architecture is relatively well investigated, methods used for its renovation are very often unsystematic and non-conceptual. The legislative protection is sort of a guarantee of its physical maintenance but on the other hand the problem appears in ensuring of the permanent sustainability and suitable use of these buildings along with the preservation of their values. The methodology defining a universal approach during their renovation is not explicitly articulated yet. Traditional methods used for reconstruction of historical buildings are inapplicable in the specific case of modern

architecture, which requires an individual approach.

The modern architecture as well as historical architecture is a subject of passing time, many of these buildings will celebrate the centenary from their creation soon. They are changing their owners, functions, requests for comfort standards and contrariwise many of them are also in the process of decay. So the question of their renovation has become acute and very actual. Till lately the renovation of modern architecture was very sporadic, spontaneous and unsystematic. Until the end of 1980s almost all the renewals and interventions have been carried out under the minimal professional supervision of conservationists. They followed particularly the utilitarian requests of investor (i.e. state) and little less they reflected the vision of architect. In a better case, some of the rehabilitation projects were given to the original authors of functionalist buildings or to the owners of author's rights.

At the present time efforts of conservationists made a certain progress in this tendency. But the approach to the specific remains of modern architecture is still partial. The conceptual system and the strategy of their preservation and renewal are currently in the process of creation and stabilization. However, experience with renovations of Modern Movement buildings in Slovakia accumulates. Also thanks to the quality realizations abroad of our territory, which serve as positive examples showing the direction, several principle rules for reconstruction of modern buildings were established in Slovakia as well. But the possibility of realization of such an exemplary and rigorous reconstruction as the renovation of the Müller Villa in Prague or the public swimming pool in Opava, which were completed in the Czech Republic, is hypothetical in Slovakia for now. Especially the swimming pool in Opava is an excellent example for reconstruction of our emblematic functionalist monument of the same kind – the swimming pool *Zelená žaba* in Trenčianske Teplice (B. Fuchs, 1935-6), which has been out of use and in a state of neglect for a long time.

Primarily, it is necessary to accept all cultural-historical, architectural, artistic or technical values of these buildings and consequently to ensure their conservation and appropriate presentation. The choice of a suitable function, which should be original-like is very important. The appropriate function is the main precondition for the preservation of an authentic space organisation and construction of a building. However, it is not only the way of future usage that matters, the method of their further protection and methodology of renewal is equally essential. The renovation of a living building, which is not intended to become just a museum object, generally requires some necessary compromises.

Architects and conservationists often have to face up to the problem of materials and constructional applications

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1. Present view of the Baťa Department Store, 1929-31 by Vladimír Karfík. Photo by V. Kapišinská, D. Haberland

with quality of temporariness and fast depreciation, which is characteristic for the buildings of Modern Movement. Because of the fact that the architectural value of these buildings is the most frequently represented by their construction, external cladding or used materials, the question of their preservation indicates a lot of problems. In addition, the process of renovation is also influenced by the request for replacement of parts and elements of a building, which results from the accommodation standard changes (for example modification of space organisation, dimensions of rooms, addition of sanitary facilities etc.). The poor quality of present craft works, which are usually not able to substitute the specific details of modern architecture, also cannot be neglected. Probably the most serious barriers preventing the professionally prepared renovation are the post-revolutionary (after 1989) changes of ownership. Almost all today's owners struggle for survival and their primary intention is the absolute efficiency of an object with minimum charges expended on its maintenance.

Concerning this, the latest requirements of energetic effectiveness associated with the supplementary applications of heat insulation represent a serious danger in particular. These objects are mostly inadequate in terms of thermal-technical norms and they have to face the pressure for substitution of the window and door frames as well as the tendency of full-area façade insulation. Characteristic materials and constructions of modern architecture were often intended to be temporary what opens a demand to define the acceptable limits of their substitution in accordance with retention of their authenticity value. The total preservation of material authenticity is unachievable, that is why the searching for proportionate limits of substitution is needed.

However, monuments with a landmark status have the statutory exception; many a times their utilization in future calls for measures improving their energy-saving qualities. The problem appears in connection with special types of suspended cladding construction, façades with a specific surface design as well as windows with high technical and artistic value, which are the integral parts of modern architecture. It means that any intervention in their integrity is inadmissible in order to preserve the authentic appearance of monuments. Therefore the indefensibility of these values appears to be a problematical sphere in terms of energy-saving.

Our contribution will be focused on reconstructions of 5 objects of Modern Movement from the interwar period. These will serve as examples for explication and to draw attention to achievements and little losses, to compromises as well as victories among renovations completed in the capital of Slovakia, in Bratislava.² We have selected buildings, which were experimental in their time, in different ways unique and unusual, typologically diverse. We will try to illustrate the destiny of their existence from the time of creation until their present appearance and functioning in daily life of the city.

2. Betková, K.: Obnova modernej architektúry. In: Arch 5/2005, p. 17; Dulla, M.: Obnova budovy bývalej Mestskej sporiteľne v Bratislave. In: Arch 6-7/2001, pp. 24-28.

2. Cladding façade of the Slovak Savings Bank, 1929-32 by Juraj Tvarožek. Photo by V. Kapišinská, D. Haberland





3. Teller hall in Slovak Savings Bank vaulted by glass-concrete arc. Photo by V. Kapišinská, D. Haberland



4. View of the staircase entrance facing of onyx of the Slovak Savings Bank. Photo by V. Kapišinská, D. Haberland

All these objects reflect more or less the unsystematic and frequently insensitive renovation realized in 1970s-1990s, when the most extensive changes occurred. The last years' reconstruction of an authentic spirit tried to retrieve the most negative consequences of that. Its more or less successful results will be mentioned hereafter.

Bata Department Store in Bratislava

First of all we will introduce the building, which is up to this day an inherent part of the historical city centre, although the paradox of strong protests accompanied its building-up in the oldest area of the city. This "department store" built for the shoemaking Bata Company in 1929-31 is one of the first buildings of this type and function in Bratislava (Fig. 1). The purpose to promote sales was the main impulse why the company decided for the attractive modern design of the building. Using the concrete-steel framework, the author of the project, Vladimír Karfík, designed it as a highly effective and economical building with an open flexible floor plan, maximally usable for commercial service. The applied artificial materials were completely modern, respecting the functionalist architectural principles. The architect paid attention to the effect of façades, which was based on natural lighting provided by strip windows and to the night effects of the neon lighting of spaces between windows and façade framing. That is why the external facing was made of glass with illuminating power. This fact indicates the problem with its technical-thermal qualities, which appeared years later.

The new technical standards and a bad condition of the building called for an extensive reconstruction back in 1986-91.³ The authors of the reconstruction tried to retain the authentic façade articulation, including the colour and material composition. But unfortunately, the staircase tower and escalator hall were added, also the original corner entrance was closed down. A result of renovation was also the replacement of all windows and complete substitution of the interiors. Fortunately, the primary intention to reface the exterior with stone was unsuccessful. Even though this project was consulted with the author of the original building back then, lot of alternations have occurred due to the new functional requirements.

The actual appearance of the building is a result of the last renovation realized in the years 2004-5. The group of architects confronted with the negative impacts of the previous architectural intervention had to face up a difficult problem, which was solved just partially by them. It was decided that all windows would be replaced (for the reason of insulating qualities enhancement) with replica windows, but their replacement posed several changes. It caused that window frames became more massive and lost their characteristic facing with the façade. But the atypical

external cladding was realized in the authentic articulation and colour design with recovering the surfaces of the specific Opaxit glass with applied neon lighting. In the interior the most invasive intervention was a new glass hydraulic lift pointlessly inserted into the centre of an open area, which caused the visual disturbance of that free-open space. At the same time post-additional and unused staircase tower remained stationary. Finally, the external view was disrupted by additional reversible terrace blind on the roof of the lower building part. On the other hand, the positive moment of this reconstruction was the restitution of the authentic entrance situated in the curved glass corner.

The function of department store remained till today, but the higher material standard of interiors and changes in space organization were adaptations caused by the new character of a luxury store. Applied expensive materials with glossy surface are kind of an inelegant antipole of the functionalist material strictness. The lot caused an irretrievable loss of the authentic principles of economy, pragmatism and effectiveness as well as the authentic atmosphere of the interior.

Slovak Savings Bank in Bratislava

The next example of an exceptional work of its time is the building of Slovak Savings Bank, originally designed by Juraj Tvarožek in 1929-32. It was a revolutionary creation thanks to a hanging coloured glass façade (Fig. 2). Hanged up to the concrete-steel structure this façade represented the technical innovation not only in the surrounding of Bratislava but also abroad of Slovakia. Behind an innovative façade there was hidden a more serious classical interior with high culture of architectural details. Over the years building survived the number of partial repairs. The insensitive renovation realized in 1973-75 was the cause of the parterre organisation changes and substitution of a lot of authentic details by unvalued replicas. After all of this the complete reconstruction took place in 1998.

Until this day the dominative space of the object is a teller hall vaulted by an impressive glass-concrete arc (Fig. 3). The original glass-concrete bricks had to be substituted during the renovation, but the composition and mild profiles of the edges of the load-bearing elements remained the same. The careful methods have been chosen also in the case of the authentic interior parts, which were precisely renovated. By the restoration process the staircase entrance facing of onyx and semi-cylindrical linear lamp were renewed (Fig. 4). The reconstruction of unpreserved architectural parts was completed according to the historical documents and photos.

The renovation of façade was, of course, the most observed one, because it should have helped to reconstitute the authentic vision and horizontal character of the exterior. Even though the original windows were substituted by plastic

3. Fajglová-Haberlandová, K.: Baťa alias Alizé. In: Arch 5/2005, pp. 28-31.



5. Historical photo of the original appearance of the Central Passage, 1928-29 by Andrej Szönyi and František Wimmer. Archive photo



6. View of the Central Passage after restoration in 2005-06. Photo by V. Kapišinská, D. Haberland

replicas, the optical appearance of their earlier thin profiles was simulated by at least partial covering of their frames and by its two-coloured design. Also the Opaxit parapets were strictly reconstructed. In the spaces between windows the Opaxit material was replaced by an enamelled glass, which allowed using of large solid sheets. Finally, the described reconstruction can be assessed as a relatively successfully managed one showing respect to the original work of functionalist architecture.

Central Passage in Department Store in Bratislava

Very interesting is also the story of reconstruction of the Central Passage, which was the first modern department passage of its times created in the first modern department store in Bratislava. It was erected in 1928-9 according to the projects of Andrej Szönyi and František Wimmer influenced by the Wagner school and the progressive movement of Functionalism (Fig. 5). Contrary to the aforementioned example of the Slovak Savings Bank, in this case the classical external cladding of the building sheltered a modern experimental interior. The long two-storied shopping gallery was roofed by concrete-steel vaulting with glass-concrete filling. The glass-concrete was applied also into the floor, which provided a natural light into the stores in the basement.

In comparison with other described objects, secondary alternations to the Central Passage were minor and it has remained basically unaltered,⁴ almost in the authentic appearance with well preserved original details. But it was out of use and abandoned for a long time and this fact reflected in its bad condition. Its final complex renovation from the years of 2005-6 meant its immediate retrieval, but on the other hand it was accompanied with the same compromise solutions (Fig. 6). The authentic patent "Kraus windows" were replaced because of their material devastation. Unfortunately, in spite of the primary intentions of the reconstruction's authors, the illumination of the basement by the glass-concrete floor was finally not realised (it is just marked in the floor paving). The reconstruction of the authentic details involved in particular the reparation of the original steel railings of gallery. Thanks to the professional reparation they have remained, but they were additionally completed by controversial glass

sheets, which make a fiction of higher quality of the applied material. Unfortunately, the similar authentic steel railings of staircases were substituted by their expensive imitation with glossy surface, for the purpose of corresponding with the new luxurious concept of a hotel building.

Storage House No. 7

One of the few remaining industrial buildings in Bratislava, which were almost completely destroyed in the last years of the city development, is the object of the Danubian Winter Docks – Storage House No. 7. It was designed and also built by Karol Skorkovský in the years of 1921-22 (Fig. 7). The huge building situated in the exposed part of the left bank of the river was constructed as a five-storied concrete-steel framed structure (as one of the first in Slovakia)⁵ in the symmetrical composition with a terraced roof and three towers in the classical design. The authentic plain rendered façades were articulated by four rows of windows and loading openings with tailgates and line of leading ramp. After long years of its existence without using and its gradual degradation, the Storage House No. 7 was partially renovated in 2006-07 within the new city district development (Fig. 8). The reconstruction was aimed especially on the façades, the roof and towers, as well as the interior of the second floor, which was adapted for a promotion office where the models of offices and flats of a newly-developing residence city section are situated. The metal windows were replaced by duplicates consisting of a thin aluminium frame and heat-absorbing glass. The tailgates were removed and substituted by metal grate balconies with glass railings in the same dimension as the tailgates were. But in the interior the tailgates opening mechanism was preserved as a reminder of their original function. There was put the contact façade thermal insulation on the basis of rockwool without breaking building tectonics.

Villa on Porubského Street 1 in Bratislava

At the present time, the question of possible impacts of insulation on the internal climate is still open, mainly because of the fact that the building was opened and without heating for almost 85 years. This partial reconstruction won

4. Haberlandová, K.: Obnova Centrálny pasáže. In: Arch 12/2006, p. 14.

5. Fajglová-Haberlandová, K.: Jedinečný príklad aplikácie moderných rámových konštrukcií v Bratislave (Zimný prístav: Sklad č. 7). In: Architektúra & Urbanizmus, vol. XL, 3-4/2006, pp. 189-205.



7. View of the abandoned Storage House No. 7 before restoration, 1921-22 by Karol Skorkovský

a prize for Renovation of the year 2007, but the future exploitation and direction of its next renewal is also still open. The low clear height of the storeys and massive pillars are very limiting factors, so we can just hope for an investor, who will come with a new suitable function respecting the construction of the building.

In conclusion, to complete the wide range of functionalist buildings in Bratislava we will mention the example of reconstruction of the "Villa on Porubského Street 1" (Fig. 9). It was built near the centre of the city according to the project of Ernst Spitzer in 1936-37. The architect used the roof terrace and applied details inspired by typical steamer-like aesthetics such as the captain's bridge or steel railings with netting.

In contrast to the previously described public buildings, the reconstruction of the villa requires a different methodical attitude in regard of its specific smooth-rendered surfaces, but also an adaptation due to the new standards

of accommodation comfort.⁶ Aside of these complicating starting-points the example of Villa on Porubského Street is an exemplary demonstration of the precise reconstruction of a functionalist object. The successful renovation realized in 2001-02 came up to expectations directed to the maximal preservation of its authenticity. The metal and stone elements were rehabilitated exclusively by the method of conservation, as well as the high quality interior details made up of classical materials such as yellow copper, glazed stone or wood. That is why the wooden sliding wall and stone cladding of the walls in living room and vestibule are still the component parts of the villa's original furnishing.

A specific problem was the renovation of the façade surfaces. On the basis of a sounder research the authentic plaster layers and details of façades were verified. The investigation also included the metal elements such as

6. Gúrtler, A: Rekonštrukcia Domu obuvi v Bratislave. In: Projekt 4/1990, pp. 26-28.

8. Present view of the Storage House No. 7 after restoration in 2006-07. Photo by V. Kapišinská, D. Haberland





9. Present view of the Villa on Porubského Street 1, 1936-37 by Ernst Spitzer. Photo by V. Kapišinská, D. Haberland

railings, ladders or plumber details. According to the verified original plaster, which was partially reconstructed, a typical lime cement plaster was applied, containing fine-grained fraction of gravel and with smoothed surfacing with white coat of paint. The green paint of metal elements was renewed by the method of conservation too. The same attention was paid to the authentic fencing.

Conclusion

We brought our contribution to a close by describing the exemplary reconstruction of the modern architecture object with a landmark status. Illustrating on examples before, we have tried to inform about the contemporary situation in the field of protection and renewal of modern architecture in Slovakia from the conservationist's viewpoint. The results of described reconstructions accurately reflect the contemporary opinion in this field. Although these achievements were not always clearly successful and mistake-free, they illustrate the progress, which is notable in terms of rehabilitation of modern architecture in Slovakia in recent years. The progress is visible at least in accepting of its values on the professional level, as well as in more sensitive approach to its renewal in comparison with the past. We can appreciate the increased respect to the authentic modern architecture and its authors as well.

But the question of principal attitude towards the renewal of modern architecture is still open and it appears as the most discussed problem. The subject to discuss is also the degree and limits of its protection. The examples of precise reconstructions are rare. The methods of modernisation or adaptation with more radically material substitutions following contemporary standards are more frequently used. We still feel as a great challenge also the need to affect public opinion in the direction of the necessity of modern architecture preservation, as well as to raise awareness of its historical and cultural importance, which is often minimized. It is especially this architecture that is often in direct danger, arising from the increasing building activity. In this aspect it will be very interesting to see how the investor, planners and the Monuments Board in cooperation will face up the expected renewal of an emblematic monument – The Sanatorium Machnáč in Trenčianske Teplice included in the DOCOMOMO register. The number of technical issues have to be resolved there. The result can be a regress or an exemplary model for reconstruction of the other architectures of the interwar but also the post-war period, which are waiting for it (Fig. 10).

10. Sanatorium Machnáč in Trenčianske Teplice, 1930-32 by Jaromír Krejcar, waiting for reconstruction. Photo by V. Kapišinská, D. Haberland

