



CASE STUDIES FROM THE LAST 5 YEARS' RESTORATION PROJECTS OF HISTORIC MONUMENTS IN SOPRON

Sándor TÁRKÁNYI

*University of Sopron, Faculty of Wood Engineering and Creative Industries. Sopron, Hungary.
tarkanyi.sandor@uni-sopron.hu*

Abstract

During the period between 2017 and 2022, the facades of 25 buildings were renovated within the framework of the Modern Towns Program in Sopron. Due to the development supported by the Hungarian Government, the Lenck House was born again and a Museum Quarter was established by the joint opening of the buildings at 6-7-8 Fő tér. This study describes the restoration process of the facades of three historic buildings, giving an insight even into the processes of authorization and execution. The aim is to present the work of the Hungarian authorities in the field of the protection of historic monuments (with special regard to Sopron), and to highlight the results of such renovations of historic buildings that have been carried out lately.

Keywords: *historic monuments, Sopron, Modern Towns Program, restoration.*

1. Introduction

Among Hungary's towns, Sopron has the largest number of nationally protected monuments, which includes more than 400 pieces of real estate. Between 1945 and 1975, high quality research and restoration projects took place in the historic downtown, which received the Golden Prize for Monument Preservation from the F.V.S. foundation in 1975 [1]. The European quality, scientific monument preservation activity, managed by Ferenc Dávid art historian, continued up to the early 1990's.

Starting from 2001, the National Office of Cultural Heritage assumed authority over monument affairs, which was taken over by the local government agencies ten years later. Ferenc Dávid's and his followers' approach to the direction and methodology of local heritage protection is influential to this day.

From 2017 to 2022, the facades of 25 buildings were restored on Sopron as part of the Modern Cities Program. My study aims to briefly introduce and evaluate the restorations of the last five years through three examples.

2. Achievements of the Modern Cities Program in Sopron

The Modern Cities Program (henceforth: MCP) is a prioritized development program for major cities that provides a total of 4200 billion HUF for funding projects in 23 cities in Hungary. In Sopron, Prime Minister Viktor Orbán launched the MCP scheme on March 15, 2015. The footstone for the Sopron project was laid in 2017 at the mouth of Kolostor street.

The goal of the project is to guide the priorities of development in major cities. The restoration of historic buildings, esp. of the facades facing the streets, in the downtown area is an important element of the project in Sopron. Among the various projects, this study focuses on the restoration of historic buildings. [2]

The main criterion for choosing the buildings to be restored through the MCP was that they shall be municipal properties. At the outset of the program another scheme was suggested where private real estate renovation would also be financed by a third part state and third part municipal funding, but unfortunately this option was discarded due to the increased costs of the ongoing renovations.

The 25 buildings whose (mostly) street-facing façades were renovated through the program were, as follows: 1 Fő square, 2 Hátsókapu, 5 Orsolya square, 3 Petőfi square, 7 and 9 St. György street, 2, 4, 7, 15, 21 and 26 Templom street, 4, 8, 11, 12, 14, 16, 22-24, 26 and 28 Új street, 54-56 Várkerület. (see [Figure 1](#)).

In case of 22-24 Új street, which are the hospital building and the temple keepers building, on the right and left of the medieval community synagogue located in the courtyard, respectively, in addition to the street-facing façade, the two lateral façades visible from the street were also renovated, as per my suggestion. The MCP also financed the renovation of the Lenck villa (Deák square 1), currently housing a museum, and the creation of the Museum quarter (6-8 Fő square).

Based on wood preservation experts' reports, the roofing materials and roof structure of the buildings in 2 Fegyvertár street, 2 Hátsókapu, 4 Petőfi square and 56 Várkerület were in a very poor condition. Based on the decision of Sopron City's Municipality, the roof structure was fortified and the roofing replaced in 2 Hátsókapu and 56 Várkerület only. In case of 2 Hátsókapu, roofing replacement was limited to street-facing roof surfaces and chimneys.

In the following analysis, I will describe three building renovation examples, introducing the MCP process and achievements. I tried to choose examples that include roofing renovation. In the second example, earlier façade renovations were amended, and in the third house, earlier renovation results were revised and the façade appearance changed.



Figure 1. A MCP Building restorations within the baroque downtown area of Sopron. Bold lines represent the restored façades. (Drawing made by András Veöreös and Sándor Tárkányi).

3. Examples of MCP restorations in Sopron

3.1. Façade renovations and partial roof-ing renovations in 2 Hátsókapu street, Sopron

The request for the Heritage Renovation Permit regarding the street-facing façade of the building was submitted by the Sopron City Municipality to the Government Agency of Győr-Moson Sopron County (henceforth: Government Agency) on February 13, 2017. The ARCHI.DOC Architectural Studio prepared the renovation documents in September 2016, coordinated by architect Dávid Józsa. The designs showed the existing and proposed street façades (both those facing Hátsókapu and St. György street), with details of the damages shown on the existing façades.

The following renovations were proposed for the building in 2 Hátsókapu:

- chimney renovations (7 instances);
- remedial chemical waterproofing of the wall footing;
- renovation of the street-facing portion of the roof, changing the roofing and flashings;
- plastering replacement in the ground floor, where it has separated from the wall, as well as reinforcing, repairing or replacing of the rest of the plastering;
- introducing repair (WTA) plaster on surfaces affected by soil moisture;
- repainting the façades;
- cleaning, reinforcing, complementing and treating the surface of the stonework on the façade to make them more hydrophobic;
- replacing the damaged roofing.

The Government Agency granted the Permit under the following four conditions:

- submitting the detailed designs, including the site inventory of the street-facing façades, prior to starting the renovation;
- colours, materials, structures and fixtures to be used during the renovation are to be pre-approved by the Agency, based on material or surface samples;
- designer to supervise the works during construction;
- stone fragments (gothic and baroque) on the façade are to be restored based on official stone restoration notices.

The contractor submitted the detailed designs and the site inventory on April 20, 2017, and the Government Agency approved them under

the condition that the original wall sections and stonework exposed earlier must be preserved (designs did not show all of these fragments.) The renovations did not start within a year and the owner did not ask for an expansion. Thus, the Municipality applied for another permit on March 5, 2018, with the earlier approved designs attached.

The new permit included three conditions:

- renovations require designer supervision and researcher guidance;
- sample plastering and colouring should be created on the façade surfaces and approved by the designer;
- restoration of the original façade stonework requires official stone restoration notices in each case.

On December 18, 2018, the Municipality gave heritage protection notice regarding the wall diagnostics of the building. Architect and historical and structural diagnostics expert Heléna Szecskő created the research plan. The Government Agency recognized the notice on December 19, and issued an official certificate.

On January 24, 2019, stonemason and restorer József Sütő submitted a stone restoration proposal regarding the stonework on the façade. In the 14-page proposal, the restorer describes the present state and the proposed cleaning, exposing, desalination, reinforcement, complementing, colouring and water repellent treatment processes. He also complemented the photographic documentation by a damage map of the stone surfaces of the façade. The Government Agency accepted the stone restoration notice on January 28, 2019.

The Municipality submitted the heritage renovation permit request for the a posteriori waterproofing of the façade of the 2 Hátsókapu building on February 25, 2019. Building renovation and insulation expert Erika Luthár prepared the renovation proposal, endorsed by Heléna Szecskő. The expert proposed that Oxal HSL siloxane micro-emulsion to be injected into the wall as horizontal water barrier. This requires a single row of drill-holes, spaced at 12 to 15 cm and drilled at an angle of 30 to 45°. The footing should receive an insulation coating of Oxal DS-HS sulphate resistant insulation sludge.

There was a heritage protection art historian and wall researcher inspection on February 20, 2019, with a reminder created. Art historian and wall researcher András Nemes, construction supervisor Tibor Eszes and structural engineer Richárd Degovics were present at the inspection. The researcher requested keeping a 50 to 60 cm

wide vertical strip of the original surface (witness strip) on the striated portion of the shorter façade section, from the level of the corner balcony, between the first and second windows. He also asked for 50 to 60 cm wide witness strips on the longer façade (Hátsókapu street) on the left and righthand side of the gate. The researcher also instructed that, except for the cement plaster of the footing, plastering must be removed by hand only, and that a 0.9 to 1.0 m wide witness plaster strip should be left in the upstairs lesene and parapet zone. Plastering replacement of the witness surfaces was possible on the go, in stages. András Nemes wanted to research the original colouring and paint in the plastered console surfaces of the enclosed balcony and the plastered mirror fields under the windowsills. To his knowledge, the building was painted with green engobe in the 1960's. The developer gave notice of commencing the renovation on February 26, 2019.

On the request of the contractor Szabó and co. Ltd., structural engineer Richard Degovics created a structural assessment of the roof structure and cracks in the façade and fascia. The assessment exposed problems in the roof structure and wall cracks, and suggested wall stitching to stop wall cracking, detailing the method to be applied.

Regarding the queen post trusses, the following recommendations were made:

- tying the lookouts to the wall plate using cramp irons;
- tying the rafters to the purlin using inverted cramp irons;
- incorporating a ridge beam and collar ties, as well as a collar beam for each roof truss;
- creating chimney trimmers;
- intermediate rafters wherever rafters are spaced at more than 85 cm;
- hacking away the top part of and strengthening rotted rafters;
- replacing the roofing materials.

Roofing included grooved tiles and rounded roof tiles on the courtyard wing and street facing roof, respectively. The assessment suggested using single grooved tiles on the street facing roof, for structural reasons (creating symmetric snow load instead of the earlier asymmetric situation.)

The contractor gave notice of eliminating the construction zone to the Government Agency on March 13, 2019. This was followed by another heritage protection inspection on March 13, requested by the authority in order to use traditional methods for plastering. According to the report, the contractor created the authentic façade col-

ouring, as identified by the art history research, based on the samples and designs recommended by the architectural designer, within one week.

Art historian András Nemes submitted his report regarding the colour investigations of downtown buildings 2 Hátsókapu, 9 St. György street and 54-56 Várkerület to the Government Agency, on April 9, 2019. Regarding the real estate in question, the researcher stated that the historical name of the building is 'Green House'. The house received ochre green colouring in the renovations of 1963/64, presumably based on its earlier colour. During this renovation, the house was stripped of its earlier plastering, and thus the exact colour before the 20th century is unknown. He suggested that the colours used in 1963/64 should be used again, as it appears presently.

The contractor submitted an alteration notice on March 11, 2019, regarding the roofing materials. Based on consultation with the heritage protection administrator, instead of the rounded tiles named in the budget and technical description, grooved Creaton "Róna" tiles were approved in natural (33%), antique (33%), and copper (33%) colours, laid randomly, using battens spaced at 26 cm. The heritage protection administrator approved the roofing after creating a sample surface of 2 square meters.

On March 28, 2019, the contractor submitted another alteration notice, this time regarding the plaster system to be applied. Instead of the Keim Porosan repair plaster named in the budget, he wanted to use the MC OXAL DS-HS insulation sludge up to a height of 1.5 metres (or 20 cm of above the adjacent terrain). Above this level, he wanted to use the LB-Knauf Eurosan plaster system. Above 1.5 m, LB-Knauf Kontakt sprinkle sub-plastering and Premium base were to be used. The administrator approved the alteration notice (Figure 2).

On April 11, 2019, the heritage protection administrator viewed the colour samples painted on the façade. Earlier, the Municipality requested a deep ochre colour to be used. After the viewing, the representative of the customer, chief architect Gergely Németh also discarded this concept. Eventually, the heritage protection administrator chose the base and insert colours from the various sample shades. On this they, the colour of the cast stone footing was also chosen. The pattern structure and colour of the cast stone footing was finalised and approved on April 29, 2019.

An official record regarding the façade painting and dismantling the scaffolding was created



Figure 2. Moulding the fascia of the St. György street façade of 2 Hátsókapu, using a mould knife (author's photograph).

on June 7, 2019, overseen by the representative of the Agency and that of the contractor. The heritage protection administrator inspected the completed façade paint and roofing materials from the scaffolding. The contractor has done first rate work, and thus the scaffolding could be dismantled (see **Figure 3**). The Agency's representative asked that pigeon spikes would be installed on the sill of the medieval stone window frames. The contractor accepted this job.

On May 7, 2020, the Municipality submitted a request to the Government Agency regarding the final acceptance of the street facing façade and roofing renovations of 2 Hátsókapu. The Agency issued the acceptance certificate on June 2, 2020.

3.2. Façade renovations of 16 Új street, Sopron

The Municipality submitted the permit request to the Government Agency regarding the street-facing façade of 16 Új street on December 5, 2016. Renovation plans were created by the A2 Architectural Studio, coordinated by architect Szilárd Fekete. In addition to the site layout, the design documents also included the assessment drawing of the existing façade (with damage map) and the renovation plans.

The architect proposed the following procedures as part of the façade renovation:

- replacing the damaged footing;
- remedial waterproofing against ground water by injection;
- removing the stucco above the footing and re-plastering using WTA plaster up to the windowsill level;



Figure 3. A section of the restored façade of the 2 Hátsókapu building, as seen from St. György street. (author's photograph)

- scraping the paint from the façade, creating a new skim coat layer using a tinted stone powder rub, followed by red lime plaster;
- painting the gutters;
- painting the street-facing window frames;
- replacing the bottom row of the roofing tiles and the mortar on the ledge and connections;
- staining the dormer window siding brown;
- stone structure renovations based on special restoration permit.

In the heritage protection permit, the Government Agency named five conditions:

- creating a construction plan and site inventory;
- renovations require designer supervision and researcher guidance;
- final colour selection should be based on colour samples;
- façade stonework restoration requires special restoration notice to be submitted.

The Municipality submitted the construction details, façade site inventory and scientific architectural history documentation on March 16, 2017. The Government agency approved the plans on April 3, 2017. Since the work didn't start within a year, the heritage protection permit expired.

A new request was submitted on March 6, 2018, and the Government Agency issued the heritage protection permit on March 9. The conditions were, as follows:

- providing designer supervision and researcher guidance;
- creating colour samples for final colour selection;
- submitting special restoration notice for façade stonework restoration.

The Municipality submitted the façade stonework restoration notice on October 4, 2018. Stonemason and restorer József Sütő prepared the stone restoration documentation, proposing that the stonework be cleaned, reinforced, and water repellent-treated. In the case of the bottom stone pillars of the gate, he proposed replacing them with identical stone blocks due to extensive salt damage. The Government Agency recognized the notice on October 8, 2018.

The Municipality gave notice of starting the renovations on February 22, 2019. The work zone was also created on the same day, documented by an official record.

The Municipality submitted the heritage protection request for the remedial waterproofing of the street-facing façade of 16 Új street on March

19, 2019. Building renovation and insulation expert Erika Luthár prepared the renovation proposal, endorsed by Heléna Szecskő. The Agency approved the remedial waterproofing notice on April 11.

Approval of the wall colour, wooden door and window frame and hardware colouring transpired on July 31, 2019. The Municipality gave notice of completing the street facing façade renovations of 16 Új street on April 27, 2020. The Government Agency issued the official recognition certificate of completion on May 5, 2020.

The contractor deviated from the approved construction plan during the renovations on two occasions. Instead of using a tainted skim coat on the façade, they used white plaster, and instead of lime plaster they used paint. Due to the white skim coat, small façade damages show very prominently. The other deviation was a positive one, namely, installing new gutters instead of painting the old ones (Figure 4).

3.3. Façade renovations of 8 Új street, Sopron

The Municipality submitted the permit request to the Government Agency regarding the street-facing façade of 8 Új street on December 5, 2016. Renovation plans were created by the A2 Architectural Studio, coordinated by architect Szilárd Fekete. In addition to the site layout, the design documents also included the assessment drawing of the existing façade (including a damage map) and the renovation plans.

The architect proposed the following procedures as part of the façade renovation:

- replacing the damaged footing and installing a higher, ventilated footing, up to the level of the top of the basement windows' stone framing;
- remedial waterproofing against ground water by injection;
- removing the stucco above the footing and re-plastering using WTA plaster using flesh-coloured smooth stone dust plastering and textured stone dust plastering, up to and above the top of the windows, respectively;
- repainting the imitation sgraffito corner stone details on the two edges of the building;
- witness surfaces will remain untouched on the façade;
- painting the gutters;
- replacing the bottom row of the roofing tiles and the mortar on the ledge;
- staining the dormer window siding brown;



Figure 4. The restored street-facing façade of 16 Új street (author's photograph)

–stone structure renovations based on special restoration permit.

In the heritage protection permit, issues on December 16, 2016, the Government Agency named five conditions, the same as listed for 16 Új street. The Municipality submitted the construction details and site inventory on March 6, 2017 to the Government Agency, which approved it on March 24.

Due to the expiration of the heritage protection permit, the Municipality submitted a new permit request on March 5, 2018. In the new permit, the Government Agency included three conditions:

- providing designer supervision and researcher guidance;
- creating colour samples for final colour selection;
- submitting special restoration notice for façade stonework restoration.

József Sütő prepared the stone restoration documentation, proposing that the stonework be cleaned, reinforced, and water repellent-treated. In case of the stone pillars of the gate, he proposed replacing them with identical stone blocks. The Government Agency recognized the notice on October 1, 2018. The Municipality gave notice of commencing the construction on October 8, 2018.

The Municipality submitted the heritage protection request for the remedial waterproofing of the street-facing façade of 8 Új street on March 19, 2019. Building renovation and insulation expert Erika Luthár prepared the renovation proposal, endorsed by Heléna Szecskő. In the documentation, the experts made the same recommendations regarding the methods and materials as for 16 Új street. The Agency recognized the remedial waterproofing notice on April 11.

Art historian András Nemes wrote an expert's report describing the witness surfaces on the façade on June 13, 2019. Ten days earlier, the author viewed the site along with contractor Gábor Baranyai, and researcher András Nemes. The report states that "Earlier created site inventory shows that the present stucco was created in 1961. So-called witness surfaces were created at that time, conserved for posterity. At the time of the 1990 façade renovation, witness surfaces were unfortunately not handled professionally. In addition to reinforcing them, they received a azure paint, which compromised their originality. Borders created around the edges of the original surfaces produced a map-like pattern. Their current appearance is rather distracting, since it interrupts the harmony of the façade. The very

understated harmony of the façade, ornamented with sgraffiti on the edges and in the window ledge zone, is disrupted by the witness surfaces.

In the expert report, the researcher makes the following suggestions:

- renovation (cleaning, conservation, restoration, minimal supplementing where needed) of the sgraffito-ornamented surfaces;
- after conservation, amorphous witness façade surfaces should be covered with the help of an expert restorer, to create an uninterrupted façade surface. This will create a pleasing façade appearance.

Based on the report, the contractor modified the materials and technologies to be used for the renovation, which was approved by the Agency. On July 10, 2019, the final colours of the façade were chosen based on the sample colouring applied to the façade earlier. This included the base colouring, as well as sgraffito, stone framework and main ledge colours.

The Municipality gave notice of completing the street facing façade renovations of 8 Új street on April 27, 2020. The Government Agency issued the official recognition certificate of completion on May 5, 2020.

Based on the results, errors and flawed decisions made in the earlier renovation of the building were corrected during the recent restoration. The street-facing façade went through exemplary restoration due to the contractor's conscientious and circumspect work and co-operation with the authorities and experts (Figure 5).



Figure 5. The restored street-facing façade of 8 Új street. (author's photograph)

4. Conclusions

This study introduced three examples of the façade renovations completed in Sopron in the MCP program. The case studies show that the renovations, although mostly limited to street-facing façades, were properly prepared and expertly executed. Contractors co-operated with the authorities as well as experts during the renovations. Whenever the condition of the buildings required, they made extra efforts to get the de-

sired outcome. Thus, MCP façade renovations were successful from a heritage protection point of view.

References

- [1] Dercsényi Dezső: *Sopron műemlékvédelmi Európa-díja*, Soproni Szemle XXX/1. (1976) 39–46.
- [2] Gajzágó Gergő: *Modern városok programja: új fejezet a magyar várospolitikában*, Tér és Társadalom 33/3. (2019) 29–48.
<https://doi.org/10.17649/TET.33.3.311>