

VIRTUAL RECONSTRUCTION OF SYNAGOGUES IN LODZ

Introduction

In 1998, the virtual reconstruction of the synagogue in Neudegggasse in Vienna represented the groundbreaking step for a project that turned out to be much more comprehensive than expected. The (interim) results have been published at several conferences¹. It has already been reported, how the modelling procedures were set out and what the situation was concerning the available data stemming from building plans and photographically recorded information. Whereas the buildings themselves were destroyed, it is remarkable to note that the approved building plans are still archived. Though photography already existed during the erection of the buildings, the information depicted on photographs only covers a part of the building in most cases. Especially (detailed) interior views are often missing as well as comprehensive information on colours and materials used. In such cases, the gap of information is closed by a plausible interpretation, which also reflects the possibilities of building construction around 1900. The synagogues were in existence for some decades as physical structures. Although the building itself is not “alive”, bits and pieces can be assembled to enhance the level of plausibility. The final outcome (renderings, animations, panoramic representations, rapid prototyped models etc.) makes it possible to form a mental picture of the building structures. The same or similar working procedures are also used to explore unbuilt architecture² or buildings which are not open to the public any more³.

1 B. Martens, H. Peter, *Developing Systematics Regarding Virtual Reconstruction of Synagogues*, [in:] *Thresholds - Design, Research, Education and Practice, in the Space Between the Physical and the Virtual [Proceedings of ACADIA 2002 Conference Pomona 2002*, pp. 349-356; B. Martens, M. Stellingwerff, *Creating Physical Models Using Virtual Reconstructions: Mixed CAM-techniques for a Viennese Synagogue Scale-model*, [in:] *SiGraDi 2005 Conference Proceedings*, Lima 2005, pp. 108-113; B. Martens, H. Peter, *Potemkin Village, reloaded - Visualisation of Destroyed Synagogues within the Cityscape of Vienna*, [in:] *Projecting Spaces - Conference on architectural visualisation [9th international EAEA conference 2009]*, D. Lengyel, C. Toulouse (ed.), Dresden 201153-58.

2 B.J. Novitski, *Rendering Real and Imagined Buildings: The Art of Computer Modeling from the Palace of Kublai Khan to Le Corbusier's Villas*, Seattle, 1999, pp. 34-39.

3 T. Maver and J. Petric, *Virtual Heritage: Is There a Future for the Past?*, [in:] *SiGraDi 1999 Conference Proceedings*,

The 3D-models display a high level of detail, thus making it possible to create interesting physical models (completely or in parts) by means of rapid prototyping. As these fabrications can be delivered in multiple ways, they can be distributed to, e.g., museums and other interested institutions. The modelling activities are not to be regarded as an aim in itself, but as a first step towards the creation of (physical) “output”⁴. Section cuts, for instance, make it possible to visualize the connection between the exterior and the interior in a non-destructive way.

70 years after the pogrom nights, a paperback city guide was published in German (2009; English version: 2011)⁵ to encourage readers to visit the more than 20 reconstructed sites. Three-dimensional documentation rebuilds the architectural spectrum of the no-longer-existing heritage in the City of Vienna. It is painful, however, to acknowledge the cultural values that have been lost.

The idea of a city guide relates to a touristic activity, i.e. the reader would (virtually) visit a certain location and be served with a certain amount of information. The intention is not to cater solely to “handpicked architecture aficionados”, but to attract a wider audience. There are only very few inhabitants left who might have experienced the local situation with the synagogues still in place. The only thing current inhabitants get to see is a “memorial plaque” – if any – on the facade of the successional building. In other words: visit the location with the city guide in your hands and trace back a piece of building history. What did it look like – form your own visuals – and how would it look like, if the building were still present in the current state of building within the given context. It has to be noted that even if a full physical reconstruction of the synagogue itself could be realized on exactly the same location, its usership would be absent for well-known reasons.

In some cases, a study of the reconstructed synagogues will surprise and amaze, because it brings to mind how many such buildings existed in Vienna⁶. In this process of “re-discovery” it will be interesting to learn how sacred buildings looked at the time and in what parts of the urban fabric they were set. Particularly visualizations of interiors will provide readers with a fascinating impression of those lost buildings and give them an impression of Jewish building culture in Vienna. Indeed the surrounding “cramped road conditions” led to a certain repertoire of solutions to overcome these short-comings. Possibilities for an unobtrusive enhancement of character were explored to the full. Tower-elements may be used as a low-profile way to set the synagogue off from neighbouring buildings. The architects didn’t have unlimited freedom to do what they wanted.

Furthermore, the building’s location in the urban fabric is usually significant, since the sacred building was embedded into a rather closed street front in order not to “stick out”. To be understandable for laypersons, the representations need to be provided within a larger ur-

Montevideo 1999, pp. 482-487.

4 B. Martens, H. Peter, *A Long-term Scope of Actions for Reconstructed Cultural Heritage: Maintaining a Virtual Archive of Non-existing Synagogues*, “*International Journal of Architectural Computing*” 2011, vol. 9, pp. 285-302.

5 B. Martens, H. Peter, *The Destroyed Synagogues of Vienna - Virtual City Walks*, Wien 2011.

6 *Viennese Synagogues: A Memory* [Exhibition catalogue], B. Martens, H. Peter, D. Spera, W. Hanak-Lettner (Hrsg.), Wien 2016.

ban context. The cutout makes it possible to embed the synagogue, and it does not produce a mock-isolated view of a freestanding building.

The wider context of synagogue buildings in Austria needs to be explored for the development of this research; valuable information has already been made available at www.synagogen.info. Originally, this repository contained only temples in Germany, but has been extended to include Austrian locations. Neighbouring countries were constituent parts of the Habsburg Monarchy at the time of the “synagogue-building boom”. They represent interesting material for comparison.

This contribution presents the outcome of diploma thesis work regarding the virtual construction of former synagogues in Lodz⁷. Brief descriptions of the four sites were extracted from the theses in an attempt to highlight their respective characteristic features.

Orthodox synagogue - ul. Wolborska 20 – a “front in a sea of buildings”

A wooden synagogue had already been built in 1809 at Wolborska Street 8, very close to this site. Given that the Orthodox community was growing and the wooden structure required continual repairs and renovation, the community decided to build a new synagogue. The design by Jan Karol Mertsching was largely implemented between 1859-61, although the construction work was only completed in 1871. It is interesting to note the alignment of the road at the building site: the angular bend in the road created a line of sight to the main entrance. An open space on the other side of the road was sometimes used as a market. A rectangular ground plan measuring approximately 45x25.5 m offered seating for a little



Exterior view of the orthodox synagogue at Wolborska Street

⁷ J. Gengler, *Virtuelle Rekonstruktion der Synagoge in der Wolborska Straße 20 (Lodz)*, Master Thesis TU Wien, 2013; A. Alibasic, *Die virtuelle Rekonstruktion der Vilker Shul - "Zachodnia 56" - in Lodz (Polen)*, Master Thesis TU Wien, 2014; S. Schiller, *Die virtuelle Rekonstruktion der Synagoge - "ul. Spacerowa 2" - in Lodz (Polen)*, Wien: Master Thesis TU Wien, 2014; G. Kucharovits, *Virtuelle Rekonstruktion der Synagoge 'Ezras Izrael' in Lodz*, Master Thesis TU Wien, 2015.

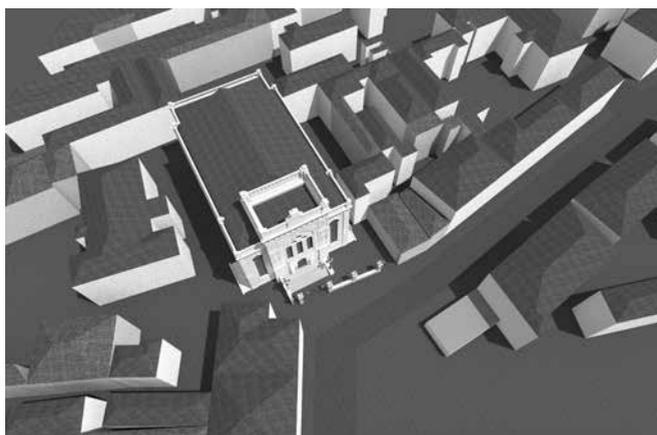


Interior view with women's galleries in two storeys

over 1,500 people. The interior is dominated by two women's galleries skirting the room on three sides

The building was renovated by Adolf Zeligson between 1897 and 1900.

On October 10, 1939, this Orthodox synagogue – which was a part of the ghetto in Lodz - was largely destroyed. The remaining parts of the western façade were demolished in April 1940.



Context of Wolborska Street before 1940 and an approximation of the current situation with the former synagogue

The urban fabric of the neighbourhood has changed comprehensively after the Second World War, since almost all of the buildings in the area were destroyed. Hence, the demolition of the synagogue did not leave a gap in the street, but the entire streetscape changed. The street layout is entirely different, and ul. Wolborska now borders on a park – not used as a market - with a water feature. The old street names, however, have been preserved. The new situation is certainly marked by the slope in the park ground. The commemorative plaque seems a little large and is in need of renovation.



Current situation at Wolborska Street – view from the park, 2016

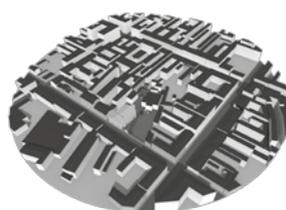
Vilker Shul – Zachodnia 56: an “elegant building with a great deal of space around it”

On 27 July 1875, the regional authorities approved the erection of a further synagogue (outside of the later confines of the Lodz ghetto) by the name of *Synagoga Nowego Miasta* [‘New Town Synagogue’], although the Jewish population mostly took to calling it *Vilker Shul*. The architectural designer is unknown, and there were probably both social and financial reasons for starting to use the synagogue prematurely, while the building was still unfinished. In 1885, the synagogue (then still with a square floor plan) was already in need of renovation which was tackled, including an extension, around 1904. Plans foresaw not only an enlargement of the main room and the construction of a staircase, but also the construction of a Talmud Thora school on the same property. The architect entrusted with this task was Gustaw Landau-Gutenteger, who had designed the so-called Reicher Synagogue (placed in a courtyard; still preserved today) in 1895 and, in 1899, Ezras Izrael Synagogue, as well as several other buildings – including tenant buildings and public structures - in Lodz.

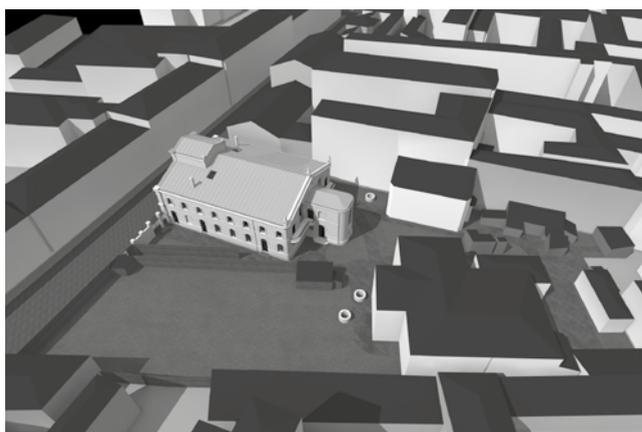
The Vilker Shul was not destroyed in 1939 but in the spring of 1940, because the building had to serve as one of the locations for shooting the Nazi propaganda movie *Der ewige Jude* (*The Eternal Jew*).



Main façade facing Zachodnia Street



Development of urban fabric: 1875 – 1896 - 1904



Situation after the extension of the Vilker Shul (1904)



Interior view of the *Vilker Shul*

As the street has been renumbered, the plot can now be found at number 70. Nowadays, Zachodnia is a busy street. There is neither a commemorative plaque nor any other indication of the previous existence of the synagogue.

Great Synagogue of Lodz (Reform Synagogue) – corner of Kościuszki/Zielona 9 – a “quasi-freestanding” Synagogue

Situated at a corner (outside of the confines of the Lodz Ghetto), the synagogue was a freestanding building, although the line of sight was restricted to the adjacent tree-lined street. The synagogue was markedly higher than the surrounding buildings, and the impact was heightened by the socle element under the building. The fence and the greenery around the synagogue set it off from the surroundings.

Its designer, the architect Adolf Wolff, had been an expert when it came to sacred buildings. He also designed the Matthäuskirche in Stuttgart (1876-81) and the synagogue of Stuttgart (1859-61; design was continued by Gustav Breyman). Other buildings by Wolff include synagogues in Nuremberg (1869-74), Ulm (1869), Crailsheim (1873; based on a preliminary design by Häfne), Heilbronn (1873-77) and Carlsbad (1874-78).



Corner location with urban fabric



Photomontage of the former Great Synagogue within the current context

The Great Synagogue of Lodz (1881-87) was his last design and shows some similarities with the temple he designed for Carlsbad immediately before that. Being a German architect, he could not freely exercise his profession in Poland at that time, which is why the plans submitted to the authorities were signed by the city architect Hilary Majewski. At first, construction progressed nicely. Soon, however, it had to be interrupted for a longer time, which mainly affected the completion of the interior. Wolff died before the synagogue



Interior view of the Great Synagogue of Lodz



Current situation at Kościuszki/Zielona 9, 2016

was completed and consecrated in 1887. The exterior was dominated by a tall, octagonal domed tower top.

The synagogue was burnt down in November 1939 and demolished in the spring of 1940. The tower tops were carefully dismantled in the process. The plot – not far from the *Vilker Shul* - has not been built up since, and nowadays contains a parking lot and a small weekly market, as well as a commemorative stone.

Ezras Izrael Synagogue – ul. Wolczanska 6 – the “colossal” synagogue

After the property had been acquired in 1899 – also outside of the later ghetto - the building permit was supposed to be issued by the authorities in the same year. Because of funding difficulties the inauguration of the synagogue was delayed until the autumn of 1904.



Main façade facing Wolczanska Street

The layout was a regular rectangle, but the depth of the property of about 35 m required an angular bend to be added at the wall limiting the property to the east. The wall still exists today. On the street-facing side, the building was separated from the pavement by a fence and a pedestal. The main façade is dominated by a large rose window, as shown by a historical postcard that shows the façade from an angle view. There are no domes or tower tops. In the interior there was an octagonal bimah and a vaulted suspended ceiling. The women’s gallery surrounded the room on three sides.

The synagogue is one of the many sacred buildings that were burnt down during the night of 10 to 11 November 1939. The remaining walls were demolished in the spring of 1940.

The property has not been built up since and nowadays features a rudimentary playground with trees and benches. Parking spaces were installed on the site where the fence and main façade used to be. There is no commemorative plaque to mark the former synagogue.



Sectional view



Urban context of the Ezras Izrael Synagogue

Conclusions

The conference “Urban Jewish Cemeteries in Central and Eastern Europe” (Lodz - November 2016) provided an opportunity for useful exchanges of ideas and demonstrated that Jewish pre-burial houses are related to synagogues in terms of their design. Viennese architects were also involved in designing this type of building. Between 1877 and 1879, Wilhelm Stiassny built a Jewish pre-burial house at Vienna’s largest cemetery, the *Zentralfriedhof*. While some of his designs have not been preserved - on the cemeteries of Kojetin (Czech Republic, 1901), Znojmo (Czech Republic, 1903) and Baden (Lower Austria, 1904-05) – an example can still be found at the Jewish cemetery of Jihlava (Czech Republic, 1903-4). Max Fleischer was just as productive, comparable buildings of his can be found in Brno (Czech Republic, 1889); Kromeriz (Czech Republic, 1898) and Gliwice (Poland, 1900). In the interwar period, Ignaz. N. Reiser designed a consecration hall at Gate 4 of



Interior view of the Ezras Izrael Synagogue

the *Zentralfriedhof* in Vienna. The design elements found in these buildings provide useful information for the virtual reconstruction of destroyed synagogues.

A comparison of synagogues in Lodz and Vienna revealed striking similarities. There was a similar approach to restrictions imposed by property layouts and by relations with neighbouring structures. In both cities, the Edict of Toleration has been interpreted narrowly. A bend as the one found in Wolborska Street was also found in Siebenbrunnengasse in Wien, although it had no bearing on the lines of sight there. Vienna did not have a free-standing synagogue comparable to the Great Synagogue of Lodz. The standard solution seemed to have been for synagogues to be inserted into the street frontage – as for instance in the case of Vilker Shul and Ezras Izrael Synagogue. In Vienna, there were no great changes in the zoning plan after the Second World War with a view to former synagogue sites.

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Streszczenie/Summary

Wirtualne rekonstrukcje synagog w Łodzi

Niniejszy artykuł podejmuje tematykę wirtualnych rekonstrukcji łódzkich synagog zniszczonych podczas drugiej wojny światowej. Podobne działania w odniesieniu do Wiednia zostały zainicjowane przez autorów już w 1998 roku. Od tego czasu ulepszana jest metodyka pracy, stosowane są coraz bardziej zaawansowane technologie cyfrowe, stopnio-

wo rozszerzał się zakres terytorialny (kraje Europy środkowej), ale cel pozostał niezmienny - utrwalenie w świadomości społecznej rangi utraconego dziedzictwa oraz jego bezsprzecznej wartości artystycznej.

Bibliografia/Bibliography

- Alibasic Arnes, *Die virtuelle Rekonstruktion der Vilker Shul - "Zachodnia 56" - in Lodz (Polen)*. Wien: Master Thesis TU Wien, 2014.
- Gengler Jean, *Virtuelle Rekonstruktion der Synagoge in der Wolborska Straße 20 (Lodz)*, Wien: Master Thesis TU Wien, 2013.
- Kucharovits Gernot, *Virtuelle Rekonstruktion der Synagoge 'Ezras Izrael' in Lodz*. Wien: Master Thesis TU Wien, 2015.
- Martens Bob, Peter Herbert, *Developing Systematics Regarding Virtual Reconstruction of Synagogues*, [in:] *Thresholds - Design, Research, Education and Practice, in the Space Between the Physical and the Virtual* [Proceedings of ACADIA 2002 Conference Pomona 2002, pp. 349-356.
- Martens Bob, Stellingwerff Martijn, *Creating Physical Models Using Virtual Reconstructions: Mixed CAM-techniques for a Viennese Synagogue Scale-model*, [in:] *SiGraDi 2005 Conference Proceedings*, Lima 2005, pp. 108-113.
- Martens Bob, Peter Herbert, *The Destroyed Synagogues of Vienna - Virtual City Walks*, Wien 2011.
- Martens Bob, Peter Herbert, *Potemkin Village, reloaded - Visualisation of Destroyed Synagogues within the Cityscape of Vienna*, [in:] *Projecting Spaces - Conference on architectural visualisation [9th international EAEA conference 2009]*, Lengyel Dominik, Toulouse Catherine (ed.), Dresden 2011, pp. 53-58.
- Martens Bob, Peter Herbert, *A Long-term Scope of Actions for Reconstructed Cultural Heritage: Maintaining a Virtual Archive of Non-existing Synagogues*, *International Journal of Architectural Computing* 2011, no 9, pp. 285-302.
- Viennese Synagogues: A Memory* [Exhibition catalogue], Martens Bob, Peter Herbert, Spera Danielle and Hanak-Lettner Werner (Hrsg), Wien 2016.
- Maver Tom, Petric Jelena, *Virtual Heritage: Is There a Future for the Past?*, [in:] *SiGraDi 1999 Conference Proceedings*, Montevideo 1999, pp. 482-487.
- Novitski B.J., *Rendering Real and Imagined Buildings: The Art of Computer Modeling from the Palace of Kublai Khan to Le Corbusier's Villas*. Seattle 1999, pp. 34-39.
- Schiller Stefan, *Die virtuelle Rekonstruktion der Synagoge - "ul. Spacerowa 2" - in Lodz (Polen)*. Wien: Master Thesis TU Wien, 2014.