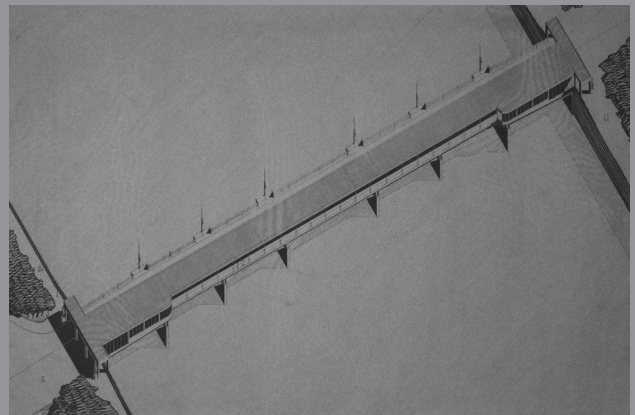


An Intriguing Work of Engineering and Architecture: The Colonnade Bridge in Piešťany



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THE period around the year 1930 could be termed the culminating point with respect to the Modern architectural avant-garde in Slovakia. It was then that the concepts emerged from the most important works, the first Slovak architectural journals began to be published, the School of Applied Arts opened, as a Slovak variant of the German Bauhaus, and an entire range of other artistic and social initiatives indicated that Slovakia's cultural environment could not only absorb avant-garde impulses, but develop them in a unique way. It was precisely at this moment that the history of one of the most famed bridges in Slovakia, the Colonnade Bridge in Piešťany, began to be written.

By Henrieta Moravčíková

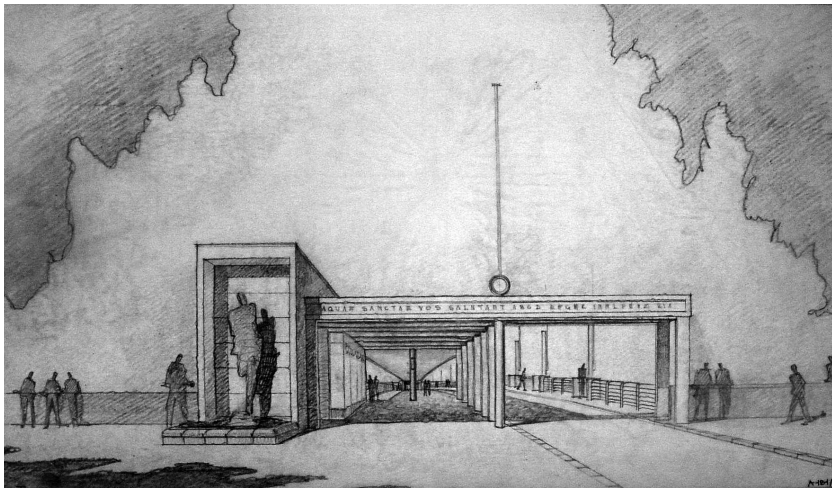
THE construction of the bridge was initiated by the director of the Piešťany spa, Lajos Winter (1870–1968), whose balneological efforts greatly contributed to the overall development of the town. He himself not only brought Modern ideas of treatment to the spa, but also stimulated the sharp increase in construction that continued in the town until the outbreak of the Second World War. Thanks to Winter, and often at his personal invitation, Piešťany played host to construction by the renowned Budapest architects Ármin Hegedűs and Henrik Böhm, the Bratislava architects Franz Wimmer, Andreas Szőnyi, Artur Szalatnai or Friedrich Weiwurm, and eventually the key protagonist of an emerging authentic Modern Slovak architecture, Emil Belluš. Part of the modernization plans of Lajos Winter included the construction of a direct link between the town centre and the spa-baths, situated on the island in the river known as *Kúpeľný ostrov* (Spa Island). Yet the new bridge was not only to be a transport link, but a “protected covered bridge with retail spaces”.¹ In addition, it was also to be “used for drinking-water cures, and thus needed to have the right artistic stylization”.²

When Lajos Winter in 1930 contacted Emil Belluš (1899–1979) to provide the artistic form to the emerging structural design of the new bridge across the river Váh, Belluš was already a relatively well-known architect. He had already completed several buildings, among them the newly finished building of the postal and telegraph office in Piešťany (1928–1931). At that time, Belluš was also working on the design for the building of the Slovak Rowers' Club in Bratislava, which was completed in 1931. It was with this iconic work of Modernism that for the first time an entire range of current construction methods were used, from the reinforced-concrete frame through the open floor plan up to the architectural details based on

the aesthetics of the modern ocean liner. Belluš also had experience with bridge design; in fact, the bridge in his native town of Banská Bystrica was his very first completed work. This reinforced-concrete bridge across the river Hron (1922–25) was designed when Belluš was still a student at the Technical University in Prague. However, the structure of the bridge was prepared by the Czechoslovak Construction Corporation, with Belluš only influencing its architectonic form. The traditional composition of a simple, indeed classical shape recalls the works of Belluš' teachers, and in no way prefigures the Modernity of his later realization in Piešťany. The pair of channeled columns with lanterns at the top, located on both sides of the bridge, even recall the work of Jože Plečnik, whom Belluš came to know during his Prague studies. Likewise, Matúš Dulla in his monograph on the work of Belluš draws attention between the parallel between Plečnik's bridge for Ljubljana and Belluš's bridge in Banská Bystrica, though noting that Belluš, unlike Plečnik, never succeeded in imprinting his own vision upon his native town.³ And yet, what Belluš failed to do in Banská Bystrica succeeded over 100% in Piešťany, where the Colonnade Bridge not only brought fame to its architect but became the town's symbol and its most famous architectural work.

The relatively demanding and in many respects innovative construction of the bridge was realized by the Trnava branch of the well-known construction firm of Pittel & Brausewetter. The plan for the structure was prepared by the Swiss engineer Alexander Schwarz, then an employee of the firm. The 148 metre-long reinforced-concrete construction of the bridge is divided into seven bridging fields, supported by six pillars, with the two central ones placed on reinforced-concrete blocks. The other four pillars in the riverbed, and the two on the riverbank are situated atop massive clumps of reinforced-concrete pilings. The structure of the bridge-frame is formed from joined ferroconcrete girders. However, the central field is placed on the brackets of the adjoining fields using joints. The gigantic reinforced-concrete pilings of octagonal

< The Colonnade Bridge by **Emil Belluš**. Axonometric view by the architect and view from the town centre. Drawing from USTARCH SAV. Photo from the Archive of the Slovak National Gallery.



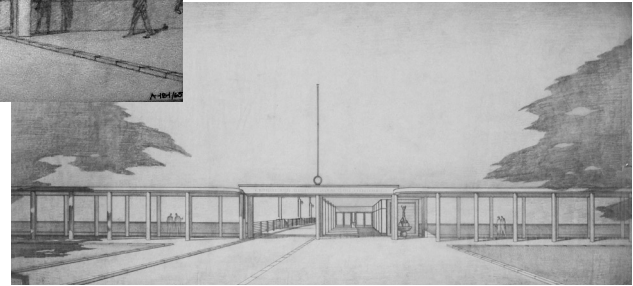
The main portal from the town in **Belluš'** drawing. Image from the Archive of the Slovak National Gallery.

shape, with a diameter of nearly half a meter, length of 10–12 m and weight of 4,000–5,000 kg were one of the main technological specifications of construction. The pilings, resembling enormous pencils, were forced into the river-bottom to a depth of 8–10 m, to reach firm bedrock and prevent damage to the structure in the flooding event. However, the bedrock in the riverbed is of varying depths, meaning that the depth of sinking and the precise length of the individual pilings could not be determined in advance. Nor could the pilings be made beforehand, as was the case in other such buildings, meaning that the cement would not have enough time for the correct hardening. As a result, the pilings were made using an innovation from the Slovak cement works in Ladce, the quick-drying cement Bauximent. This material allowed for quick hardening while retaining the needed firmness. As a result, pilings of only 48 hours of age could be used for the bridge. The exacting demands for load-bearing and structural solidity required exceptionally massive reinforcement. Through the use of another innovation of the time, Isteg steel, which could bear up to 40% greater loads than traditional circular rods, it was possible to reduce the dimensions of the reinforcements and thus the structure as a whole. Precisely this material can be thanked for the bridge's slender elongated lines.⁴

This structurally ingenious fundament formed the basis that was further handled aesthetically by Emil Belluš'. The upper part of the bridge was divided into two parallel strips, for motor and foot traffic. The pedestrian section had a roofing system similar to that of railway platforms. At the centre were supports placed at regular lengths apart, holding up the long roof surface with T-shaped girders. Unlike the open platform, however, the spaces between the supports were enclosed with a glass wall,



General view. Photo from the Archive of the Department of Architecture USTARCH SAV.



The not realised spa colonnade in Belluš' drawing. Image from the Archive of the Slovak National Gallery.

serving as protection from the strong west winds that would otherwise make walking on the bridge less pleasant. On both sides of the bridge, Belluš' installed, within the first bridge-fields, small shops, and in the covered pedestrian section benches. Thanks to the forward-looking architectural design, the bridge became a living part of the town, similar to the Renaissance bridges in Florence or Venice. Adding to the Modern appearance of the bridge was its slender steel railing with flag-mounts and large glass panes, at the centre of the bridge decorated with etching by the Slovak painter Martin Benka. Another unique feature of the bridge was its nocturnal illumination, in the form of long lines of lights integrated into the structure so as to emphasize its basic form. Similarly to Le Corbusier placing in front of the pavilion of the journal *L'Esprit Nouveau* at the Paris Exposition of 1927 a Purist sculpture by Amédée Ozenfant, Emil Belluš' too created a space for a statue in front of the bridge. Though the realistic figure *Barlolámač* (Crutch-Breaker) by Rudolf Kühmayer is not a masterwork of Modern sculpture, it has become a symbol of the town and today even forms part of the town seal. Both of the entrance portals to the bridge were ornamented, at the builder's request, with inscriptions. On the side facing the town is the title from the Latin poem by Adam Trajan from 1642 *Saluberrimae Piestiniensis Thermae* (Song of Praise for the Piešťany Baths). The portal on the side of the spa island, in turn, addresses the patients with its Biblical injunction *Surce et ambula* (Arise and Walk). On the side of the island, the bridge was

originally to have connected to the spa colonnade. Though this was never realized, the plan gave the bridge its name 'Colonnade Bridge'. Construction lasted for just under 11 months in 1931 and 1932, yet work was only carried out in autumn and winter, so as not to disturb the spa patients.

The bridge was ceremonially opened in the spring of 1933, with the Czechoslovak foreign minister, Edvard Beneš, present. At this time, Belluš was only 34 years of age; later, he recalled the time of his work on the bridge as the most beautiful time of his life. Even at this early point, the bridge assumed its place in history as an important symbol of Slovakia's entry into Modernity. Yet despite all the social and political connotations that drew attention to the bridge at its opening, its fame is still largely derived from its being an excellent work of architecture. It joins together the two key principles of Modern architecture: technical complexity and artistic simplicity. Precisely these two qualities enchanted the Austrian architectural historian Friedrich Achleitner, who termed the Colonnade Bridge a work of genius in the balancing of the Constructivist aesthetics of ferroconcrete with the riverside landscape.⁵ Most architectural historians rank the Colonnade Bridge as the crowning moment of Belluš's Functionalist period. Even in the most recent monograph about the architect, the bridge is the key work in the chapter entitled 'Functionalism', though the author does recall that in Belluš's oeuvre function was always paramount,

and that in the Colonnade Bridge there was a fortunate meeting of functional requirements and Modern formal vocabulary, with the artist's classic sense of rhythm and visual counterpoint.⁶

At the end of the Second World War, the bridge was damaged by the retreating German army, with significant damage to the central part of the bridge structure. Almost by miracle though, the glass plates were saved, since one of the spa employees removed them in time. During rebuilding of the bridge, the decisive question was simply to renew as quickly as possible the link between the town and the spa island. Yet, though, the bridge was not then viewed as an architectural landmark, the work was carried out following the original plans from the 1930s. Bearing in mind the relatively brief interval between construction and repairs, there was not even a radical difference of construction technologies or materials, such that the rebuilt section can hardly be told apart from the original. The bridge was opened again in 1956. Though the present bridge is, to an extent, simply a replica, it can still be regarded as a consistent and authentic landmark of the Modern era. It was under such words that it was registered in the National Landmark Register, as of April 10, 1987 as entry number 2347/0. The Colonnade Bridge in Piešťany was also among the first works that the Slovak working group entered in 1994 into the Slovak Top Register of **docomomo**.⁷

Notes

1. These are the words used in the memoirs of Lajos Winter. Winter, L., *Spomienky na Piešťany*, Balneologické Museum, 2001, 75.
2. Such phrases were used about the bridge even during its construction. Weisz, E., *Pistyan's Aufstieg*, Forum, vol. 1, n° 6-7, 1931, 196.
3. Dulla, M., *Architekt Emil Belluš*, Bratislava, Slovart, 2010, 39.
4. Schwarz, A., *Bau einer gedeckten Eisenbetonbrücke in Pistyan*, Forum, vol. 1, 1931, 376-377.
5. Achleitner, F., *Mitteleuropa-auch kein architektonisches Thema?* WAS-Zeitschrift für Kultur und Politik, Dezember 78, 1994, 5-25.
6. Dulla, M., *Architekt Emil Belluš*, Bratislava, Slovart, 2010, 94.
7. Fiche for the Colonnade Bridge was elaborated by Klára Kubičková, first chair of the Slovak working chapter. Top register-Slovakia, Ed. K. Kubičková, Bratislava, SAS, 1994.

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