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Зборник Матице српске за ликовне уметности

48

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НОВИ САД

2020

МАТИЦА СРПСКА
Одељење за ликовне уметности

MATICA SRPSKA
Department of Fine Arts

ЗБОРНИК ЗА ЛИКОВНЕ УМЕТНОСТИ МАТИЦЕ СРПСКЕ је покренут 1963. године као научни часопис Одељења за ликовне уметности Матице српске у Новом Саду. У њему се објављују радови из историје српске и југословенске, али и светске уметности средњовековног, нововековног и модерног раздобља. Отворен је и за расправе из музеологије, херитологије, студија визуелне културе и теорије ликовних уметности. Међународна редакција прихвата само необјављене чланке који у истоветном облику не могу бити понуђени другом издавачу. За све научне радове објављене у часопису редакција из круга угледних домаћих и страних научника обезбеђује најмање две независне рецензије.

Чланци, расправе и прилози имају сажетке, кључне речи, резимее на страним језицима по избору аутора и УДК број по међународној библиотечној класификацији. Часопис излази редовно једанпут годишње у обиму до 50 ауторских табака. Сваки број садржи именски и географски регистар, а доспева разменом у око 100 светских библиотека.

Изражење часописа финансијски помажу Министарство просвете, науке и технолошког развоја Републике Србије и Покрајински секретаријат за културу и информисање Аутономне Покрајине Војводине. Индексиран је на ЕРИХПЛУС и ЕСЦИ Клеривејт аналитикс листама међународних научних часописа.

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MATICA SRPSKA JOURNAL FOR FINE ARTS was founded in 1963 as the journal of the Department of Fine Arts of the Matica srpska in Novi Sad. It publishes papers related to the history of Serbian and Yugoslav art, as well as art heritage from medieval, New Age and modern periods from all parts of the world. It also welcomes discussions in the field of museology, heritology, studies of visual culture and theory of fine arts. The journal accepts only previously unpublished papers which cannot be simultaneously offered in the same form to another publisher. All articles will be subject to double-blind peer reviewing, given by prominent Serbian or foreign scholars.

Articles, discussions and contributions should include abstracts, keywords, summaries in a foreign language of choice of the respective authors, as well as a UDC by International Library Classification. The journal is published annually in up to 50 sheets of copyright. Each issue contains a name and geographic index and is distributed through exchange to close to 100 libraries worldwide.

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Оригинални научни рад / Original scientific paper

The Art of Engineering: The First Railway Bridge in Belgrade

ABSTRACT: The modernization processes in Serbia and the urban development of Belgrade in the second half of the 19th century were closely linked to the engineering development, railroad building, and the construction of bridges. The Sava river was the state border of Serbia until the end of the First World War. The first Belgrade bridge, the Railway Bridge (1882–1884) over the Sava river was built by the renowned French Compagnie de Fives-Lille pour constructions mécaniques et entreprises. It was a joint project of the Kingdom of Serbia and the Austria-Hungary, and a part of the railway connection of Western Europe with Constantinople (Istanbul) and Salonika (Thessaloniki). The Railway Bridge was destroyed during World Wars, and rebuilt soon afterwards, as it was the most important railroad connection to Belgrade. In the Second World War, German engineering troops have rebuilt the bridge, and renamed it the General Will Bridge (General Will-Brücke). Today, named the Old Railway Bridge, it is an integral part of Belgrade cityscape.

KEYWORDS: the Old Railway Bridge over the Sava, the General Will Bridge (General Will-Brücke), Fives-Lille Company (Compagnie de Fives-Lille pour constructions mécaniques et entreprises), French engineers, German engineers, railway, Belgrade.

THE SERBIAN RAILWAY, AND THE FIRST RAILWAY BRIDGE IN BELGRADE OVER THE SAVA RIVER

In the convention between Serbia and Austria-Hungary (1878), the Berlin Convention (1878), and the Vienna Railway Convention (1880), the Principality of Serbia agreed to build a railway line up the Morava valley from Belgrade to Niš. The first branch would continue southwards up the Morava valley to Vranje for connection with the Ottoman railways in the direction of Salonika (today Thessaloniki), the other running south-eastwards up the Nišava valley to the Bulgarian frontier beyond Pirot, and in the direction of Constantinople (today Istanbul). Austria agreed to connect the Austro-Hungarian system with these Serbian lines by new construction, which would end with a large bridge over the Sava between Semlin (today Zemun)

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and Belgrade (BEAVER 1941: 279; ВУЧО 1981: 128).¹ In this way, Serbia would become the shortest link of Western Europe with the Mediterranean ports and engage in the broad flows of international economic relations.

Belgrade and other Serbian towns were rapidly modernizing, and there was a need for local and larger infrastructural projects and engineering skills. From the arrival of the first engineers to Serbia in 1834/35 until the end of the First World War, more than a thousand engineers were employed in Serbia. Some of them were foreign citizens, recruited as engineers under contract. Serbian engineers were educated either abroad, sometimes as state scholars, or in Serbia after the opening of the Technical Faculty of the Great School (ŠOLAJA, MAGDIĆ 2009: n.p.). However, at the time Serbia did not have the financial resources for a major project such as the construction of railways, so the Serbian Government in early 1881 signed a contract for the construction of the Belgrade–Niš–Vranje railway line with the French financial company Société de l'Union Générale, whose board chair was renowned rail expert Paul Eugène Bontoux. The loan contract, which Serbian public considered financially very unfavourable, laid down in detail all the works – from the project design of the railway line to the construction of bridges and railway stations. All bridges are foreseen to be of iron construction and constructed according to the regulations in force in France (ВУЧО 1981: 129). In January 1882, the Société de l'Union Générale suddenly went bankrupt, and the collapse caused the stock market crash in Paris. Consequently, a major scandal broke out in the Serbian National Assembly, known as “the Railway Affair” or “the Bontoux Affair.”² The Serbian government, in a very difficult position, managed to name another bank, the Comptoir national d'escompte de Paris, to take over the entire state loan. The new contract was signed in early 1882, at the time when Serbia became the Kingdom.

One of the most important projects of the contracted railway link between the Kingdom of Serbia and the Austria-Hungary was the Railway Bridge (Serb. Železnički most; today known as the Old Railway Bridge, Serb. Stari železnički most) over the Sava river (Fig. 1), a border bridge between Belgrade and Semlin (today Zemun). The Railway Bridge built between 1882 and 1884 was a joint project of the two countries. Bridge design and construction was carried out by the Compagnie de Fives-Lille pour constructions mécaniques et entreprises, the major French public works and engineering company.³

Towards the end of the 19th century, great public works began in France. From 1861 to 1905, the Fives-Lille workshops produced more than 2,000 railway bridges, about 100 road bridges, several stations, and more than 2,000 locomotives. Fives-Lille also constructed railway lines in Hungary, Eastern Europe, and South America. One of its flagship achievements was a 750 meter long bridge over the Danube in Cernavodă, Romania (1883–1895), that was a milestone in the history of bridge construction techniques. In 27 months, the Fives-Lille built a railway line between Budapest and Belgrade (Pest-Semlin line), 420 kilometers long, which also involved the construction of several tunnels and two large bridges – one across the Dan-

¹ Regarding the development of the Balkan railways see more in: МИЛЕНКОВИЋ 1936; BEAVER 1941; БАЈИЋ 1998; SAMARDŽIĆ 2010.

² About the Société de l'Union Générale, the role of foreign capital in modernization processes in Serbia at the end of the 19th century, and political implications see: BOUVIER 1960; МИТРОВИЋ 2004; WHITE 2007; SAMARDŽIĆ 2010.

³ For an overview on the history of the Compagnie de Fives-Lille pour constructions mécaniques et entreprises see: DUBOIS 1985; HERMANN, CARONN 2013; MELAN 1890.



Fig. 1. The Railway Bridge over the Sava river in Belgrade, built 1882–1884 by the Compagnie de Fives-Lille pour constructions mécaniques et entreprises. (postcard, collection of A. Ilijevski)

ube at Novi Sad and the other across the Sava at Belgrade (DUBOIS 1985: 521, 522; HERMANN, CARONN 2013: 18; MELAN 1890: 32).

During that period, the art of engineering was at its peak, and the *Fives-Lille* built the Boieldieu Bridge on the Seine in Rouen, the Lafayette Bridge on the Rhône in Lyon (1888–90), and in 1897 assumed the construction of the Alexandre III Bridge (Pont Alexandre III) in Paris. Numerous railway buildings, including the railway stations of Lille (1889–1890), Roubaix (1890), the metallic structure for the roof of the Orsay Train Station (1898–1899) alongside Moisant-Laurent-Savey, as well as a line for the Paris Metro. The factory in Lille with Cail constructed the Machine Gallery (Galerie des Machines) of the 1889 l'Exposition Universelle in Paris. The company made the hydraulic elevators for the Eiffel Tower which still operate today. (DUBOIS 1985: 523–524; HERMANN, CARONN 2013: 43–44).

The Railway Bridge on the Sava had a total length of 463 meters. It was a truss bridge made of iron, a grid structure with vertical bars, and a large number of closely spaced diagonal elements – right and left angle bars. The piers were solid, constructed with stone masonry (БУЉЕБАЦ 1997: 34, 35; STIPANIĆ, BUĐEVAC 1989: 319).

Land expropriation, construction of a proportionate section of the bridge, access roads, including the railway to the Belgrade Railway Station, were excluded from the bank contract, and was under the financial authority of the Serbian Government (SAMARDŽIĆ 2010: 127–128). In 1883, the railway from the bridge to the newly constructed Belgrade Railway Station building

was completed, and the first railroad line in Serbia, Belgrade – Niš, about 250 km long, was put into service on September 3, 1884 (AVRAMOVITCH 1919: 8). Soon afterwards, in 1888 through communication was possible from Belgrade to Salonika and Constantinople. The first line followed the Morava valley south of Niš, crossing the Danube-Aegean watershed, and joining the already existing Vardar valley line at Skopje. Meanwhile, the Austro-Hungarian line Budapest – Maria Theresiopel (Subotica) – Neusatz (Novi Sad) – Belgrade was completed. An inaugural train left Budapest on 12 August 1888 and duly arrived at Constantinople. The service ran regularly, and reduced the journey time between the two capitals from fifty-six hours to thirty-eight hours. The Belgrade–Constantinople time was reduced from ten days by road to thirty hours by rail. A daily connection was established each way from Vienna to Salonika and Constantinople, the average speed of the trains being about 21 miles, i.e., 34 kilometers per hour (BEAVER 1941: 280).

In Belgrade, a local railway was built in 1899 from the Belgrade Railway Station to the Slaughterhouse factory complex at Karaburma area. At the same time, tracing the railway along the Sava and the Danube riverbanks will lead to unfavourable urban development of that part of the capital city.

THE RAILWAY BRIDGE DURING THE FIRST WORLD WAR

At the beginning of the First World War, on 28 July 1914, shortly before midnight, the Austro-Hungarian armoured ships tried to break through from the direction of Zemun. There was an exchange of fire between the Austro-Hungarian Army on the left, and Serbian soldiers and volunteers on the right bank of the Sava. Then, in the immediate vicinity of the Railway Bridge, one of the bullets hit and killed a volunteer, Dušan Đonović, young employee of the Serbian Railway Directorate (АНОНИМ 1914а: 2). Belgrade Railway Bridge became a place of remembrance on the first casualty of the First World War.

Shortly after midnight on July 29, due to escalating fire, Serbian Army captain Mihailo Alić with soldiers mined the Railway Bridge and interrupted the only link of the invading Austro-Hungarian Army with the right bank of the Sava. The three parts of the bridge superstructure fell into the river, while the piers remain intact. According to the newspaper report, the Austro-Hungarian Army subsequently released forty-seven projectiles on the bridge, but it remained in the same condition as it was left by the Serbian miners after the blast (АНОНИМ 1914б: 1). The bridge over the Sava in Belgrade, after being damaged by the Serbian Army, was entirely destroyed by the Austro-Hungarian Army during their initial retreat in 1914 (BUHLER 1930а: 43).

On the Austro-Serbian front line, it was important to rebuild the bridge over the Sava near Belgrade, since it was crucial for the railway line to Bulgaria and Ottoman Empire. An operation with a railway ferry was initially established, that could hold 24 railway carriages. Soon after, with Austro-Hungarian war bridges material, three companies of the Austro-Hungarian and three companies of German railway engineers worked on the repair of the bridge and completed the task in two months. On December 30, 1915, the bridge was officially opened (АНОНИМ 1916: 28).

At the beginning of the war, the Austro-Hungarian Army adopted the Zelisko-Roth-Waagner system, which made it possible to establish the largest war bridges. Primarily it was only intended for spans from 45 to 110 m and for piers up to 60 m high, and used for railway and road

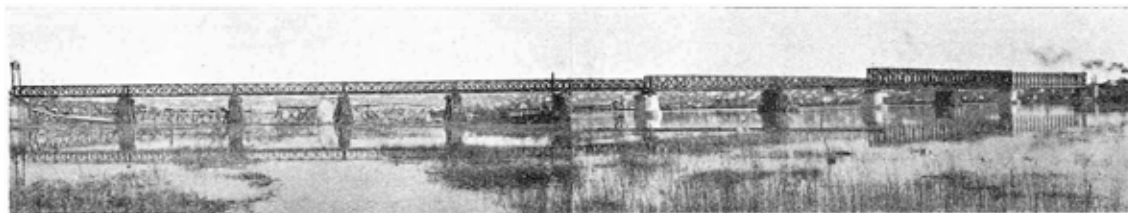


Fig. 2. The Railway Bridge over the Sava, 1915, rebuilt with temporary Kohn and Zelisko-Roth-Waagner systems. (source: BUHLER 1930c)



Fig. 3. The Railway Bridge over the Sava, 1916–1917, Military bridge replaced by permanent semi-parabolic structure (source: BUHLER 1930c)

bridges. In the form of continuous beams, this system allowed even larger spans. The elements could be carried by arm and transported on the road by tanks. The assembly was done on a cantilever scaffold, on one or on two sides, using two swivel cranes with 6.5 m flights, which are sufficient for the assembly of two 6 m panels (BUHLER 1930b: 70–71).

In 1915 the Bridge over the Sava was rebuilt with temporary construction, Kohn (6.30 m) and Zelisko-Roth-Waagner (2.48 m -d- 1.95 m) systems. The opening on the right was a reused span, 84 m long (1915), and the length of the bridge was 475 m (Fig. 2). The military bridge was replaced in 1916–17 by permanent semi-parabolic beams, so the army could reuse military bridge elsewhere (BUHLER 1930c: 90) (Fig. 3). A new steel structure was delivered from the factory in Reschitz (Rou. Reșița) (STIPANIĆ, BUĐEVAC 1989: 319; БУЂЕВАЦ 1997: 35–36).

During the retreat in 1918, The Austro-Hungarian and the German Army demolished that rebuilt bridge, in a way that only the structure above the first opening on the Belgrade side, all foundations and pylons remained intact (Fig. 4, 5).

According to the testimony, the Railway Bridge on the Sava was demolished at exactly 1.10 pm on November 1, 1918. At the time, it was already clear that the last enemy soldier had left Belgrade. After the bridge was destroyed, people from Belgrade went to the Kalemegdan park at the Belgrade Fortress. From there, they could see the enemy soldiers running across the Zemun Polje, along the railway line towards Zemun. Immediately afterwards, strong detonations began (МИЛУТИНОВИЋ 1938: 851). As the Serbian Army advanced rapidly, the enemy forces systematically destroyed the railroad network, including bridges, tunnels, stations, and loading platforms (AVRAMOVITCH 1919).



Fig. 4. The Railway Bridge over the Sava, demolished during the Austro-Hungarian and the German Army retreat in 1918. (source: AVRAMOVITCH 1919)



Fig. 5. The Railway Bridge over the Sava, demolished during the Austro-Hungarian and the German Army retreat in 1918. (source: AVRAMOVITCH 1919)

BELGRADE BRIDGES DURING THE INTERWAR PERIOD

After the First World War, Belgrade became the capital of the Kingdom of Serbs, Croats and Slovenes (from 1929 Kingdom of Yugoslavia). National interest was the political and economic integration of unequally developed parts of the new country. The restoration of ruined transport communications and the linking of road and rail networks within the newly formed Kingdom was of paramount importance. Communication routes, domestic and international traffic, were of particular importance for economic growth.



Fig. 6. Belgrade: aerial view, before the Second World War. Lower left: the Zemun Bridge of King Aleksandar I the Unifier over the Sava river, and upper right The Pančevo Bridge of King Petar II over the Danube (postcard, collection of A. Ilijevski)

In the period between the two World Wars, constructions of new bridges over the rivers Sava and Danube in Belgrade were infrastructure projects of the highest national importance, because river borders, woven into the memory of the nation no longer existed. The reconstruction of the destroyed the Railway Bridge on the Sava should reconnect Belgrade with Zemun, and pre-war Serbia with the western parts of the country. In 1921 the Railway Bridge was rebuilt with the same type of construction from Romanian Steel Works and Domains of Reșița (Uzinele de Fier și Domeniile Reșița; U.D.R. or U.D.R.I.N.) what was installed during the First World War (БУЋЕВАЦ 1997: 36–37).

One of the main determinants of urban expansion Belgrade was the need to build new bridges to enable territorial development of the city, and connect the capital with different parts of the Kingdom. This was evident in the 1923–1924 Master Plan of Belgrade. In addition to the existing Railway Bridge, three more bridges were planned. The bridge over the Sava river along Brankova Street would represent the fastest traffic connection to Zemun. Bridging the Danube over Ada Huja would establish a connection with Pančevo and Banat (Fig. 6). The third, unbuilt bridge, was planned at the confluence of two rivers, starting from the Cara Dušana Street, and going across the river island called Veliko ratno ostrvo towards Zemun. (ВУКСАНОВИЋ-МАЦУРА 2014: 300; КАДИЈЕВИЋ 2015: 510–511).

Belgrade was still an important railroad connection. At the meeting of the Commission of Railways Ports and Waterways of the Peace Conference in 1919, the Kingdom of Serbs, Croats and Slovenes signed the agreement that the new train, called the Simplon Orient Express will connect London and Paris via Milan, Trieste, Belgrade and Sofia to Istanbul.

The railroad line from Skopje via Belgrade to Zagreb, approximately 900 km long, had a parallel railroad lines in some parts built as a double track. These parallel lines represented the backbone of the state, because they run through the Morava and Sava valleys. In only one place, from Topčider to the Sava Railway Bridge, there was single track 4 km long. (ВАСКОВИЋ 1933: 657). In early 1933, authorities concluded that the Railway Bridge has reached its maximum load and had to be reconstructed into a bridge with two tracks, with additional connection to the Topčider and the Belgrade Railway Station. At the time, it was estimated that an average of 15 pairs of passenger and 7 pairs of freight trains pass through the bridge in 24 hours. As the traffic will increase in the future, the plan was to build the bridge parallel to the Railway Bridge (РАКОЧЕВИЋ 1933: 386–387; Д. С. 1937: 9).

The priority in the Kingdom was to build a railway link between Pančevo and Belgrade. Preparatory work began in May 1927, and works on the road–rail bridge in May the following year. The Pančevo bridge of King Petar II (Serb. Pančevački most kralja Petra II) was built by a consortium of German companies: Hein, Lehmann & Co. from Düsseldorf-Oberbilk; Gutehoffnungshütte AG from Oberhausen; C. H. Jucho from Dortmund; Aug. Klönne from Dortmund; Fried. Krupp AG from Rheinhausen; Maschinenfabrik Augsburg Nürnberg (MAN) AG from Mainz Gustavsburg; and Vereinigte Stahlwerke AG from Dortmund. At the same time, a railway line between Pančevo and Belgrade was built. The bridge over the Danube, and the railway line Belgrade – Pančevo were officially opened by Prince Pavle Karađorđević on November 10, 1935 (АНОНИМ 1935: 693; СТИРАНИЋ, ВУЂЕВАС 1989: 324). The Pančevo bridge of King Petar II Karađorđević reduced the journey from Belgrade to Pančevo from twelve hours to only thirty minutes.

In 1929 the international competition for the road, tram, and pedestrian Zemun bridge of King Aleksandar I the Unifier (Serb. Zemunski most viteškog kralja Aleksandra I Ujedinitelja) across the Sava river was announced. The bridge, 457 meters long, was erected by the French construction company the Société de Construction des Batignolles from Paris (pylons and approaches), and the German company the Gutehoffnungshütte from Oberhausen (metalwork construction). Russian émigré architect Nikolai Petrovich Krasnov (Никола́й Петро́вич Красно́в, 1864–1939) from the Architectural Department of the Ministry of Civil Engineering designed the bridge pylons. The bridge was officially opened on the birthday of the late king Aleksandar, on December 17, 1934 (КАДИЈЕВИЋ 1996; БОРОЗАН 2011; ИЛИЈЕВСКИ 2013; 2014).

THE RAILWAY BRIDGE AND THE SECOND WORLD WAR

At the start of Germany's lightning campaign into the Balkans, massive aerial bombing of Belgrade caused terrible casualties. Although declared an open city, Belgrade was bombed in four raids on April 6, and again on April 7, 11, and 12, 1941. Bombs destroyed a large part of the city, but the German pilots did not bomb the bridges, as infrastructure was of paramount importance for passing troops and delivering materials. On the evening of April 12, 1941, land units occupied Pančevo. Due to the infiltration of the German Army through Banat and Srem,

the demolition of the bridges on the Danube and the Sava near Belgrade was ordered, which Yugoslav Army engineers had done on the night of 11/12. April. The Sava river bridges – the Railway Bridge, and the King Aleksandar I Bridge were partially demolished. On the river Danube, miners destroyed the central part of the King Petar II Bridge to delay the enemy advance. Nevertheless, the German Army entered Belgrade as early as April 13th. During the occupation, the German Army rebuilt the King Petar II Bridge, which was targeted again during the Allied bombing.

The Railway Bridge was necessary for the German Army to transfer equipment and troops to the territory of Southeast Europe and to transport the wounded. From 23 April to 29 May 1941, German Railway Troops (Ger. Eisenbahntuppen) rebuilt the Railway Bridge over the Sava river with war structure. The inscription was also affixed: General Will-Brücke / Erbaut von Eisenbahnpionieren on 23 April – 29 May 1941 (the General Will Bridge / built by the railway pioneers / from 23 April – 29 May 1941). The new bridge was officially put into service by General Joachim von Kortzfleisch. On that occasion, a flower-decorated train crossed the bridge, named after General Otto Will, commander of the Railway Troops. German railway pioneers were well-known for their work on the reconstruction of railway lines, and the occupying authorities wanted to emphasize their importance by naming the bridge after General Otto Will.

German troops needed double rail track, so they started the construction of the parallel bridge, 20 m downstream. That second bridge was in construction until 1944. In the Allied bombing, both bridges were damaged. During the German Army retreat in October 1944, bridges were mined. The bridge upstream (the first bridge) was demolished, and could not be repaired. The second bridge was partially destroyed (STIPANIĆ, BUĐEVAC 1989: 323; БУЂЕВАЦ 1997: 35).

German soldiers in 1942 also built a new bridge across the Sava. It was named after Prince Eugene of Savoy (Sava Bridge, Serb. Savski most; today the Tram Bridge, Serb. Tramvajski most; or Old Sava Bridge, Serb. Stari savski most), an Austrian general who took Belgrade from the Ottomans in the 18th century. It was a border bridge as the Sava became a border river once again. During the war operations to liberate Belgrade on October 20, 1944, at the height of the struggle, teacher Miladin Zarić, observing the way the Germans set explosives on the Sava Bridge, came to the bridge and cut off the activation cables, saving the bridge. During the withdrawal from Belgrade in October 1944, the occupying army also destroyed the only bridge on the Danube, the King Petar II Bridge.

THE REVERBERATION OF THE BELGRADE BRIDGE

After the Second World War, economic, social and political changes caused that the destroyed Belgrade bridges were rebuilt in a new design, as the symbols of Belgrade new urban topography. The repair of the Railway Bridge was done during 1945, since it was an important railway link. The construction of the first Railway Bridge was removed, and the parts of the second bridge were reused on the first Railway Bridge (STIPANIĆ, BUĐEVAC 1989: 323; БУЂЕВАЦ 1997: 35). That reconstructed Railway Bridge remained the only Belgrade railway bridge over the Sava River until the opening of the New Railway Bridge in 1979.

In 1945, Russian engineers reconstructed the King Petar II Bridge on the Danube. In 1946 traffic was released over the bridge and the rebuilt bridge was named the Red Army Bridge

(Serb. Most Crvene armije). After further reconstructions, the name Pančevo bridge remains. The steel structure of the Bridge of King Aleksandar I the Unifier was destroyed in a bombing during the war, while parts of the substructure remained (the pylons), and still stand under the new bridge. During the period of socialism, the bridge was officially called the Bridge of Brotherhood and Unity (Serb. Most bratstva i jedinstva, today Branko Bridge, Serb. Brankov most). The old Sava Bridge, now known as the Tramway Bridge, was the first only pedestrian bridge. In 1984 tram rails were placed, as part of the tram line to the Block 45 in New Belgrade.



Fig. 7. The Railway Bridge over the Sava river in Belgrade, 2020. (Photo by A. Ilijevski)

Bridges, utilitarian structures by their purpose, have always been significant architectural endeavours. Throughout history, and especially in Belgrade, to bridge the river meant not only to merge the two riverbanks, but to symbolically conquer the new territory. The Railway Bridge was the first to be destroyed in the wars, and the first to be rebuilt. Through ideological context, bridge can be viewed as a complex symbol of socio-political and cultural aspects of the epoch. Today, the Old Railway Bridge has lost its function, and the deteriorating structure requires an urgent repair (Fig. 7, 8). As an important historic bridge, it has to be re-evaluated, listed as



Fig. 8. The Railway Bridge over the Sava river in Belgrade, detail, 2020. (Photo by A. Ilijevski)

heritage, and preserved. Through rehabilitation or adaptive reuse, we need to re-imagine the Old Railway Bridge as a part of the public space, like a pedestrian zone and a botanical garden of the New York City's High Line project, or a space with art installations. This phoenix bridge could be reborn as a pedestrian and bicycle bridge that is a communicational link to the integral parts of Belgrade. We have a unique opportunity to preserve a piece of our past. The Old Railway Bridge represents a emblem of engineering endeavors, place where space and time meet, and site filled with memory and historical value.

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УМЕТНОСТ ИНЖЕЊЕРСТВА: ПРВИ ЖЕЛЕЗНИЧКИ МОСТ У БЕОГРАДУ

Резиме

Модернизацијски процеси у Србији започети у другој половини XIX века и урбанистички развој Београда били су уско повезани са развојем инжењерске струке, изградњом мреже железница и мостова. Први београдски мост, Железнички мост (1882–1884, данас Стари железнички мост) преко реке Саве, изградила је реномирана француска компанија Фив-Лил (Compagnie de Fives-Lille pour constructions mécaniques et entreprises). Један од најважнијих пројеката уговорене железничке везе између Аустроугарске и Краљевине Србије био је гранични мост преко реке Саве у Београду. Мост је био део везе Западне Европе са Цариградом и Солуном. Железнички мост на реци Сави је био од вареног гвожђа и имао укупну дужину 463 метра. Конструкција је била решеткаста, са паралелним појасевима и испуном од укрштених вертикала и дијагонала, преко пет отвора. Фив-Лил је такође изградио железничку пругу између Будимпеште и Београда (линија Пешта–Семлин), дугу 420 километара, са неколико тунела и два велика моста – преко Дунава у Новом Саду и Железничким преко Саве у Београду.

На почетку Првог светског рата, убрзо након поноћи, 29. јула 1914. због интензивирања ватре, капетан Михаило Алић је са саборцима минирао Железнички мост и надирућој аустроугарској војсци прекинуо једину везу са десном обалом Саве. Три дела гвоздене конструкције пала су у реку, док су стубови и темељи остали неоштећени. За време окупације, непријатељска војска је обновила Железнички мост јер је било битно успоставити саобраћај са Бугарском и Османским царством. Мост су порушили у току повлачења 1918. године.

Након рата Железнички мост је поново подигнут и представљао је важну железничку везу између две територије Краљевине Срба, Хрвата и Словенаца (од 1929. Краљевине Југославије), као и значајну руту међународне пруге. У Београду су се изградили Мост витешког краља Александра I Ујединитеља (1929–1934) преко Саве и Панчевачки мост краља Петра II (1927–1935) преко Дунава.

Током Другог светског рата, због надирања непријатељске војске преко Баната и Срема, у Београду су у ноћи 11/12. априла 1941. године минирани мостови. На Сави су делимично порушени Железнички мост и Мост краља Александра I. На Дунаву су минери југословенске војске уништили средишњи део Моста краља Петра II.

Немачке железничке трупе су од 23. априла до 29. маја 1941. године обновиле Железнички мост преко Саве решеткастом ратном конструкцијом. Том приликом је и постављен натпис: *General Will-Brücke / Erbaut von Eisenbahnpionieren / vom 23. 4. – 29. 5. 1941.* (Мост генерала Вила / изградиле железнички пионири / од 23. 4. – 29. 5. 1941). Нови мост је свечано пустио у саобраћај генерал Јоахим фон Корцфлајш (Joachim von Kortzfleisch). Воз украшен цвећем прешао је преко моста, названог по генералу Оту Вилу (Otto Will), заповеднику железничких трупа. Немачким трупама био је потребан дупли колосек, па су 20 m низводно започели градњу паралелног моста. Други мост је био у изградњи до 1944. године. У савезничком бомбардовању оба моста су оштећена, а током повлачења немачке војске у октобру 1944. године и минирана. Санација је извршена током 1945. године, када је уклоњена конструкција првог железничког моста, а делови другог моста употребљени на првобитном железничком мосту.

Мостови су први у рату страдали и први су се након рата обнављали. Кроз њихову изградњу и идеолошки контекст могу се сагледавати комплексни друштвенополитички и културни аспекти времена у коме су настајали. Стари железнички мост у Београду преко реке Саве симбол је историје инжењерских подухвата и место колективног сећања.

Кључне речи: Стари железнички мост преко Саве, Мост генерала Вила (General Will-Brücke), Компанија Фив-Лил (Compagnie de Fives-Lille pour constructions mécaniques et entreprises), француски инжењери, немачки инжењери, железница, Београд.

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