

CHAPTER 1

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The Bosnian and Serbian Narrow-Gauge Railways and the Construction of the Yugoslav Transport and Economic Space

Introduction

For a long time, the spatial dimension of social processes has been disregarded or simply ignored in historical science. The “spatial turn” has offered a long overdue way forward. With the “rediscovery” of the spatial dimension in economics, sociology, and cultural studies, a new perspective for the analysis of modern society has been opened.¹

Due to the importance of transport infrastructure in the spatial integration of states, new questions about its impact on society need to be asked. Since transport infrastructure is able not only to integrate but also disintegrate society spatiotemporally, it is important to address these questions. Transport infrastructure has often been presented as something a priori positive, not just in economics and political science, but also in historical science. Questions about this a priori positive dogma have been raised, leading to new research shedding light on the “dark side” of transport infrastructure.²

Historical science has generally agreed that infrastructural integration had a positive influence on the nation-building process in 19th century Europe.³ However, the situation in post-imperial Southeast Europe was more complex. After WWI, the newly founded states inherited the somewhat dense railway networks from the former imperial states (Austro-Hungarian, Ottoman, and Russian empires). Before 1918, each of these more or less dense railway networks formed parts of distinct but well-integrated and functional transport spaces; therefore, the new states experienced great difficulties with the construction of national railway networks within the new national borders. Across thousands of kilometers of

¹ Cf. Danijel Kežić, “Die Bedeutung einer Infrastrukturgeschichte Südosteuropas. Tendenzen und Desiderata in der aktuellen Ost- und Südosteuropaforschung”, *Südost-Forschungen* 78 (2019), 289-303.

² Cf. Dirk van Laak, “Infra-Strukturgeschichte”, *Geschichte und Gesellschaft* 27:3 (2001), 367-393; Id., *Imperiale Infrastruktur. Deutsche Planungen für eine Erschließung Afrikas 1880 bis 1960* (Paderborn: Ferdinand Schöningh, 2004).

³ Cf. Gerold Ambrosius/Christian Heinrich-Franke, *Integration von Infrastrukturen in Europa im historischen Vergleich*. Vol.1: *Synopse* (Baden-Baden: Nomos, 2013); Judith Schueler, *Materialising identity. The co-construction of the Gotthard Railway and Swiss national identity* (Amsterdam: Amsterdam University Press, 2008).

“old” infrastructure, the power of the former imperial states was accumulated.⁴ The old infrastructure, often in a negatively-connoted “path dependency”, affected the process of construction of national transport spaces in East and Southeast Europe, endangering the nation-building processes within these spaces. The construction of a common integrated Yugoslav transport and economic space represented a complex and difficult issue, due to variations in the inherited railway infrastructure (in the Kingdom of Serbia, Austria-Hungary, and the Ottoman Empire). Deeper analysis of the 1919 “Artarias Railway Map” shows five different and poorly connected transport spaces within the Kingdom SHS.⁵ Some of them, like Dalmatia and Montenegro, were isolated and lacked any railway connection to other parts of the new state.⁶ The process of spatial integration in Yugoslavia began in 1919 and different approaches were possible: 1) the construction of a new common Yugoslav transport and economic space; 2) the construction of Slovenian, Croatian, and Serbian transport and economic spaces, and their connection to a “Yugoslav” one; 3) the connection of the existing inherited transport and economic spaces with each other into a “Yugoslav” one.⁷

The railway experts and Yugoslav nationalists preferred the first solution, but even though they wanted to construct a new common Yugoslav transport, economic, and national space, in the interwar period there had already been constructed (willingly or unwillingly) a Slovenian, a Croatian (in Slavonia, Croatia, and Dalmatia), and a Serbian (in Vojvodina, Serbia, Macedonia, and Kosovo) space. Apart from this, a parallel common Bosnian-Serbian transport space had also been constructed based on the narrow-gauge railway network(s). Montenegro remained isolated without a railway network.⁸ Early on, the Yugoslav railway experts recognized three crucial problems regarding the spatial integration of Yugoslavia: 1) The problem of Adriatic Railway(s)⁹; 2) The problem of inherited narrow-gauge railways; 3) The problem of “private railways”.¹⁰

⁴ Cf. Jens Ivo Engels, “Machtfragen. Aktuelle Entwicklungen und Perspektiven der Infrastrukturgeschichte”, *Neue Politische Literatur* 55:1 (2010), 51-70.

⁵ Those were transport space of: 1) former Austria (Slovenia, Dalmatia), 2) former Hungary (Croatia, Slavonia, Vojvodina), 3) former Kingdom of Serbia, 4) Bosnia and Herzegovina 5) Montenegro and Sandžak.

⁶ Cf. *Artaria's Eisenbahnkarte 1919* (Biblioteka Matice srpske, GK IV 195).

⁷ The majority of experts preferred either the first or the third option. At the First Railway Conference in 1920, Josip Smoldaka warned against danger of dividing Yugoslavia into two economic and transport spaces. Cf. *Stenografski zapisnik sednica Konferencije za proučavanje pitanja o podizanju novih železničkih pruga u Kraljevini SHS, održane od 3-7. maja 1920. godine u Beogradu* (Beograd: Sv.Sava, 1920), 48f.

⁸ Just one narrow-gauge railroad existed in Montenegro before 1918, connecting Virpazar and Bar (1908). During the interwar period another one was built: Nikšić- Bileća (1938).

⁹ The huge spatial problem in the Kingdom SHS were the missing railway connections to the Yugoslav ports on the Adriatic coast. The construction of so called “Adria-Railway(s)” should solve this problem and connect Ljubljana, Zagreb and Belgrade to the Yugoslav ports on the Adriatic coast.

¹⁰ Cf. Zdravko Vasković, *Građenje novih železnica i naš izlaz na Jadransko more* (Zagreb: Kr. Zemaljska tiskara, 1921), 4-53.

The third problem could have been solved during the interwar period,¹¹ so that the socialist Yugoslavia would have inherited only the remaining two problems. After the federalization of Yugoslavia in 1945 and the formation of six socialist republics, the spatial integration issue became even more complex than it had been before.¹²

At first glance, the Kingdom SHS in 1919 had similar problems to those of Romania, Czechoslovakia, or Poland in spatially integrating the new state. The problem of inherited narrow-gauge railway network(s) made the situation in Yugoslavia unique and more complex. The Kingdom of Serbia and Bosnia and Herzegovina were outliers in Europe vis-à-vis the narrow-gauge railways: some of the main railway lines in Serbia were narrow-gauge, and in Bosnia and Herzegovina a whole narrow-gauge railway network had been constructed – the only one in Europe!¹³ Some Yugoslav experts recognized early the disintegrative potential of the inherited narrow-gauge railways for the future spatial integration of the young South Slavic state,¹⁴ but because of high political and economic costs it was nearly impossible for the Yugoslav government to liquidate the narrow-gauge system. In my opinion, the inherited narrow-gauge railways in Yugoslavia are a prime example of the accumulated power of infrastructure. In this paper, I intend to investigate their role in the process of the construction of the Yugoslav transport and economic space and to analyze their impact on the spatial integration of Yugoslavia.

The Bosnian and the Serbian Narrow-Gauge Lines before 1918

Construction of the Bosnian Narrow-Gauge Railway Network 1878–1918

In his book, van Laak observes and analyzes the phenomenon of “railway imperialism” in Africa, and in this context outlines the “dark side” of infrastructure.¹⁵ Such “railway imperialism” was present also in Europe. However – the Austria-Hungarian railway policy in Southeast Europe is a good example of such a phenomenon, especially in Bosnia and Herzegovina. According to Schiendl, railway policy in Bosnia and Herzegovina was the result of Austro-

¹¹ Miloš Skakić, *Gradenje novih željeznica* (Sarajevo: Štamparija N. Pijukovića, 1922), 3-12; *Stenografski zapisnik*, 51-53, 55f. The nationalization of Southern Railway and Oriental Railway cost 422 million French francs. The 3,100 km of private local railways (vicinal railways) cost in total ca. 250 million dinar. Cf. Petar Milenković, *Istorija građenja željeznica i železnička politika kod nas (1850-1935)* (Beograd: Orao, 1936), 332f.

¹² Instead of construction of unified Yugoslav transportation and economic space, each republic tried to construct its own transportation and economic space within its own republic borders.

¹³ Greece had also some main railways lines constructed as narrow gauges, but these were mostly private railways with different narrow gauges (from 0,6m to 1,00m) and not a full narrow gauge railway network like in Bosnia and Herzegovina.

¹⁴ Petar Milenković and Nikola Đurić refused consequently the idea of Yugoslav “organic” narrow gauge network.

¹⁵ Cf. Van Laak, *Imperiale Infrastruktur*.

Hungarian foreign policy and interest.¹⁶ Juzbašić's arguments are similar: the Austrian and Hungarian political, military, and strategic interests determined railway policy in Bosnia and Herzegovina.¹⁷

In the 1870s, Bosnia and Herzegovina was an important region for Austrian geostrategic railway plans in Southeast Europe. The first Bosnian railway was a 101.6 kilometer long normal-gauge line between Dobrljin and Banja Luka (opened in 1873).¹⁸ This railway was a part of the originally planned Oriental Railway across Bosnia and Herzegovina (Sandžak-Railway) and it remained after the abandonment of this project in 1875 the only normal-gauge railway in Bosnia and Herzegovina.¹⁹ Yet this normal railway line was not a part of the Bosnian State Railways, and was connected as a military railway to the Royal Hungarian State Railways.²⁰ After the occupation in 1878 only narrow-gauge lines (0.76 m) were built, so that in 1914 Bosnia and Herzegovina was the only country in Europe with a whole narrow-gauge railway network. The question is: what was the reason for such development of Bosnian railway network after 1878?

The railways of Bosnia and Herzegovina after 1878 were administratively neither a part of Austria nor a part of Hungary, but directly under the administration of the Ministry of War – one of the only three common ministries of Austria-Hungary.²¹ Because of this fact, neither the Imperial Royal Austrian State Railways nor the Royal Hungarian State Railways were responsible for building or administering railways in Bosnia and Herzegovina.²² Moreover, the military had great influence on railway construction. This is the reason that the first new railways in Bosnia and Herzegovina were built as military railways and under military administration. After the occupation in 1878, the military needed the railways to be able to send troops into Bosnia and pacify the unexpected resistance of the domestic Muslim population. In his book, Schiendl analyzed the circumstances surrounding the construction of the Bosanski Brod – Dobož – Zenica (189 km) railway, the first narrow-gauge railway in Bosnia and Herzegovina. The Bavarian company Hügel & Sager was assigned to construct this temporary military “light railway”. Because the company had narrow-gauge tracks (0.76 m) in stock in its storage in Romania, it was decided to use these tracks to construct the Bosanski Brod – Dobož – Zenica railway. According to Schiendl, this coincidence

¹⁶ Werner Schiendl, *Die Eisenbahnen in Bosnien und der Herzegowina 1867-1918* (Wien: Bahn im Film, 2015), 10.

¹⁷ Cf. Dževad Juzbašić, *Izgradnja željeznica u Bosni i Hercegovini u svjetlu austrougarske politike od okupacije do kraja Kalayeve ere* (Sarajevo: Akademija nauka i umjetnosti BiH, 1974).

¹⁸ Schiendl, *Die Eisenbahnen*, 19.

¹⁹ More about Sandžak - Railway in: Franz Joseph Kos, “Die Auseinandersetzungen in der Donaumonarchie zwischen den militärischen Führung und der ungarischen Regierung über den Bau der Orientbahnen während der Orientkrise 1874/75-1879”, *Militärgeschichtliche Mitteilungen* 39:1 (1986), 67-91; Dževad Juzbašić, “Bosnien und die Herzegowina in der österreichisch-ungarischen Orient-Eisenbahnpolitik”, *Südost-Forschungen* 72 (2013), 11-62.

²⁰ In 1882, the opening of the railway line Sisak – Dobrljin, a connection was made to the Hungarian State Railway Network. Cf. Schiendl, *Die Eisenbahnen*, 30-32.

²¹ Another two were the Ministry of Finance and the Ministry of Foreign Affairs.

²² Cf. Schiendl, *Die Eisenbahnen*, 14f.

is the main reason why Bosnian narrow-gauge network used 0.76 m tracks.²³ The military Bosanski Brod – Dobož – Zenica “light railway” was finished in June of 1879. One month later, this military railway was opened for civilian passenger and goods transport.²⁴

The next step was to make a long-term strategy for railway policy in Bosnia and Herzegovina. Three questions were crucial: 1) finance 2) track gauge 3) institutional organization. Neither Austria nor Hungary was willing to finance the construction of railways in Bosnia and Herzegovina. Therefore, they decided that Bosnia and Herzegovina should finance them itself. The idea was that Austria-Hungary would provide credit for the railway construction. The repayment of the credit was guaranteed through exploitation of Bosnian natural resources (lumber) over the next 60 years.²⁵ In this way, Austria-Hungary treated Bosnia and Herzegovina like a classic colony: Vienna and Budapest decided railway policy in Bosnia and Herzegovina, but the Bosnian people alone had to pay for it.

The question of track gauge proves the “colonial status” of Bosnia and Herzegovina. Austro-Hungarian railway experts heatedly discussed the future track gauge of the Bosnian railway network. The Ministry of War even established a commission of railway experts to analyze this question. Although some high-ranking generals and the majority of experts voted for the normal gauge, the Austro-Hungarian government refused to implement this decision because of the high costs, and opted instead for the narrow gauge (0.76 m) as the standard for Bosnian railways.²⁶ Between 1880 and 1895, one part of the Bosnian railways (the Bosanski Brod – Zenica railway) was under the jurisdiction of the Ministry of War, and another part (the Zenica–Sarajevo–Mostar railway) under the Ministry of Finance. In July 1895 the whole narrow-gauge railway network (667.5 km) was merged into the Bosnian State Railway and placed under the jurisdiction of the Ministry of Finance. On the 15th of July 1895, the Railway Directorate of Bosnian State Railway in Sarajevo was founded as a central civil institution for all narrow-gauge railways in Bosnia and Herzegovina.²⁷ After that, Serbo-Croatian became the official language on Bosnian State Railways.²⁸ This institutionalization of Bosnian railways was very important for the future spatial integration of Bosnia and Herzegovina.

Benjamin von Kallay, the Finance Minister of Austria-Hungary and the Governor of Bosnia and Herzegovina from 1882 to 1903, pushed for the rapid development of the Bosnian railway network. Since Bosnia and Herzegovina needed access to Adriatic Sea, the Narenta-Railway Sarajevo-Mostar-Metković line was completed in 1891.²⁹ But this solution was only temporary and did not

²³ Petar Senjanović, *Dalmatinska željeznica u Jugoslaviji. Predavanje održano u Splitu dne 12. i 13. ožujka 1919* (Split: Hrvatska štamparija, 1919), 10; Schiendl, *Die Eisenbahnen*, 34f.

²⁴ *Ibid.*

²⁵ *Ibid.* 81f.

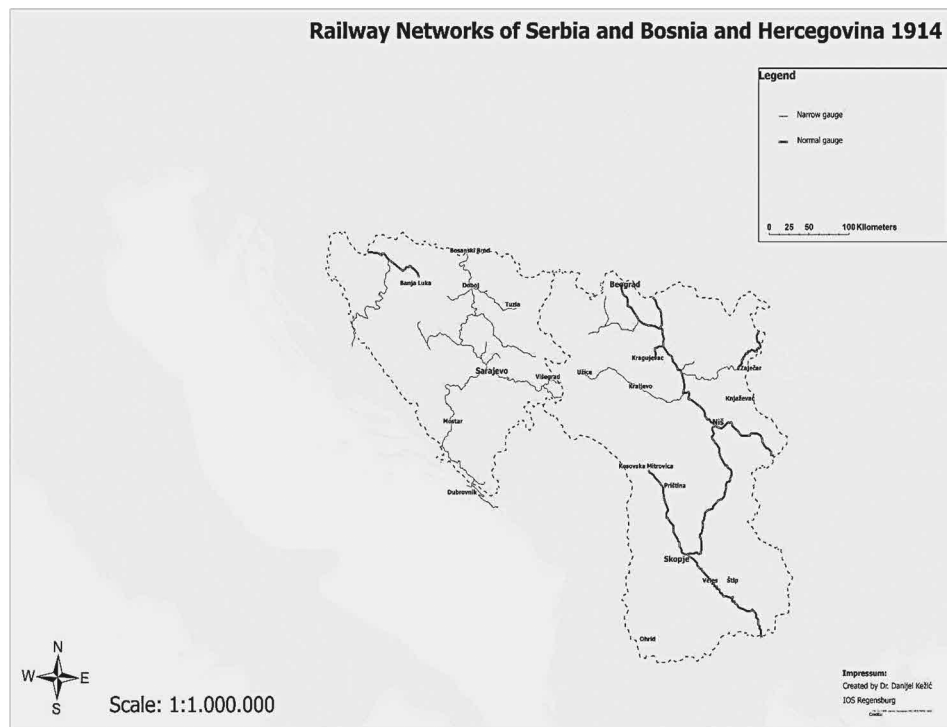
²⁶ *Ibid.* 72-74.

²⁷ Schiendl, *Die Eisenbahnen*, 240f.

²⁸ *Ibid.* 243.

²⁹ Cf. Juzbašić, *Izgradnja željeznica*, 98-101.

meet the requirements of the Bosnian economy. For this reason, Kallay tried to realize the project of the Spalato-Railway (a narrow-gauge railway connection from Bosnia to the port of Split in Dalmatia) – a long term solution and real access to Adria for Bosnia and Herzegovina. However, the realization of this project failed due to the resistance of the Hungarian government, which successfully prevented the implementation of this idea, protecting its own economic and political interests.³⁰



Map 1: Railway Networks of Serbia and Bosnia and Herzegovina 1914 (D. Kežić)

The last two great railway projects in Bosnia and Herzegovina were strategic military projects: the Dalmatia-Railway (188.8 km between Gabela and Zelenika along the Adriatic coast) was finished in 1901 and the East-Railway (166.4 km between Sarajevo and Vardište on the Serbian border) in 1906.³¹ These railway projects were from the strategic point of view very important for the Ministry of War in Vienna. The problem was that the Bosnian people had to pay for these military railways: not only for their construction but also for the unprofitable transport services that resulted after the opening of those lines.

After the annexation of Bosnia and Herzegovina in 1908, the Austro-Hungarian military again took the initiative concerning railway policy. The narrow-gauge railway network had shown its limits, and so the main railway

³⁰ Schiendl, *Die Eisenbahnen*, 205f.

³¹ *Ibid.* 280-310.

lines in Bosnia and Herzegovina needed to be normalized. The military required a prompt normalization and developed the Great Bosnian Railway Plan in 1911: the construction of 819 km of normal-gauge railways, financed by Austria and Hungary.³² The outbreak of WWI blocked the realization of this plan.

The Bosnian State Railway in 1918 had a narrow-gauge railway network with 1,076 km of railway lines in total. In addition to that, the Otto Steinbais Corporation built 338 km of private narrow-gauge forestry railway (the Steinbais-Railway).³³ But more important was the fact that the Bosnian narrow-gauge railway network spatially integrated and defined Bosnia and Herzegovina. Croatia, Slavonia, and Vojvodina were a part of the Hungarian economic and transport space; Slovenia and Dalmatia were part of the Austrian one. Thanks to the narrow-gauge railway network, Bosnia and Herzegovina had its own exclusive economic and transport space inside of Austria-Hungary. The monumental oriental railway station in Bosanski Brod perfectly symbolized the entrance to this space.³⁴ Also important was the fact that Bosnia and Herzegovina had its own State Railway and its own Directorate in Sarajevo. Regarding railway institutions, Bosnia and Herzegovina in 1914 was on the same level as the Kingdom of Serbia.

Construction of the Serbian Narrow-Gauge Railway before 1918

During the Congress of Berlin in 1878, the Principality of Serbia committed to the prompt construction of a part of the Oriental Railway (the Belgrade – Niš – Border line) through Serbia. This obligation was a great financial burden for the young Serbian state. The railway was finished in 1888, but the price to pay was high: because of the bankruptcy of the “Union Générale” (the international creditor of the Oriental Railway in Serbia) in 1882, the building of Belgrade – Niš railway turned out to be one of the most expensive railway construction projects in Europe.³⁵ The result was a loss of trust of the Serbian Government in the international financing system. Because of this distrust, railway construction in Serbia was financed with limited internal financial resources, and over the next 15 years hardly any new railway lines were built in the Kingdom of Serbia.³⁶

The most dominating and controversial rail infrastructure question in the 1890s concerned the track gauge of the Serbian State Railways. In 1895, the Serbian rail infrastructure experts decided that it would be preferable to build exclusively narrow-gauge lines in Serbia going forward. Later discussions were held on which particular narrow gauge would be the most suitable. Josimović

³² Schiendl, *Die Eisenbahnen*, 391-397.

³³ Cf. Postkursbureau des K.K. Handelsministeriums (Ed.), *Österreichisches Kursbuch. Sonderausgabe. Eisenbahn und Dampfschiffkurse* (Wien: Waldheim-Eberle A. G., 1918), 347-353.

³⁴ Cf. Dušan D. Lončarević, *Naše železnice* (Beograd: Štamparija Đura Jakšić, 1939), 75f.

³⁵ Holm Sundhaussen, *Historische Statistik Serbiens 1834-1914. Mit europäischen Vergleichsdaten* (München: Oldenburg, 1989), 509.

³⁶ Cf. *Ibid.* 512.

preferred the 0.60 m narrow gauge because it cost the least to construct.³⁷ Ilić, his main opponent, preferred the 1.00 m narrow gauge because it cost less than the normal gauge, but still operated at a high capacity.³⁸ However, due to the need for a future railway connection to the Bosnian narrow-gauge railway network, the issue was finally decided in favor of the 0.76 m narrow gauge.³⁹ This decision was politically motivated: the Serbian Government hoped to take Bosnia and Herzegovina in the near future, and employing the same narrow-gauge lines (0.76 m) would ensure access to the Adriatic Sea for the Kingdom of Serbia through Bosnia.⁴⁰ Thus, the narrow-gauge system in Bosnia directly affected the decision on track width in Serbia. Three years later (in 1898) Miša M. Mihajlović created the first plan for a Serbian railway network.⁴¹ This plan confirmed officially the confusion regarding track gauge in Serbia. Only the Trans-Balkan Railway (the Zaječar – Niš – Kuršumlija rail) was planned strictly as a normal-gauge track (1.435 m). For another 10 main railways in the plan, the question of the track gauge remained open: each railway line could be built either as normal-gauge or as narrow-gauge (0.76).⁴²

The institutionalization of the Serbian State Railways took place after the nationalization of 1889. Initially the Serbian Ministry of Construction administered the Serbian State Railways. Three years later (in 1892) the Railway Directorate of Serbian State Railways in Belgrade was founded as an institution under the control of the Ministry of Construction. After 1908 the Directorate worked as an autonomous state institution and was also responsible for the construction of new railway lines.⁴³

In 1915 The Serbian State Railway comprised 1,368 km of railways in total: 694.4 km of which were normal-gauge and 673.6 km narrow-gauge.⁴⁴ In Bulgaria and Romania almost exclusively normal-gauge railway lines had been constructed at the same time. The Bulgarian State Railway in 1914 consisted of 2,108 km of railways in total,⁴⁵ and the Romanian State Railway 3,554 km.⁴⁶ Even Greece had more railways than Serbia: 451 km of normal-gauge lines and 1,143 km of narrow-gauge.⁴⁷ The majority of railway lines in the Kingdom of Serbia

³⁷ Milivoje Josimović, *Železničko pitanje* (Beograd: Nova trgovačka štamparija, 1904), 8f.

³⁸ Vlajko Ilić, *O širini naših novih železnica* (Beograd: Nova trgovačka štamparija, 1905), 26-32, 42-46.

³⁹ Josimović, *Železničko pitanje*, 8f.

⁴⁰ Miša Marković, "Postanak i razvitak železnica u Kraljevini Srbiji 1867-1918", in *Jubilarna Knjiga Državnih železnica Kraljevine Jugoslavije*, 160; Josimović, *Železničko pitanje*, 8f.

⁴¹ Milenković, *Istorija građenja železnica*, 85.

⁴² Arhiv Srbije (AS), Đ-131-2: Zakon o građenju i eksploataciji novih železnica, Beograd 1898.

⁴³ Dragomir Arnaudović, *Istorija Srpskih železnica* (Beograd: Privrednik, 1934), 303-306.

⁴⁴ Sundhaussen, *Historische Statistik*, 512f.

⁴⁵ *Статистически сведения за българските държавни железници и морски пристанища през 1914. година* (София: Държавна печатница, 1919), 4.

⁴⁶ *Anuarul Statistic al României. Annuaire Statistique de la Roumanie 1930* (Bucuresti: Imprimeria Natională, 1932), 141.

⁴⁷ Railway in Greece was not as important for the spatial integration as in other Southeast European countries. Much more important were roads and naval connections which allowed for transportation of goods and passengers by water. Cf. Александър Костов, *Транспорт и комуникации*

were built after the May Coup of 1903 in Belgrade, as the strategic-military importance of railways came into focus with regard to railway policy. In this time some of main railways, such as the Stalać – Kruševac – Vrnjačka Banja – Kraljevo – Čačak – Užice, and Zaječar – Krivi Vir – Paraćin, were built as 0.76 m narrow-gauge railways. The differing track gauges of some of the mainline railways made the spatial integration of the Kingdom of Serbia difficult, dividing the Kingdom of Serbia into two parts. The Oriental Railway (the Belgrade – Niš – Border railway) ran in the middle as a normal-gauge (1.45 m) railway, separating the two narrow-gauge networks (0.76 m) that operated to the east and to the west of the Oriental Railway. The construction of the Transbalkan Railway (Prahovo [Danube] – Zaječar – Knjaževac – Niš railway) as a normal-gauge line also complicated the spatial situation in the Kingdom of Serbia. Because of these issues, other than in Bosnia and Herzegovina the narrow gauge did not integrate but rather disintegrated Serbian transport and economic space.

The Narrow-Gauge Railways in the Interwar Years: Construction of the “Organic” Yugoslav Narrow-Gauge Railway Network

The railway network of the Kingdom of Serbs, Croats, and Slovenes (Kingdom SHS) was actually a mixture of five different railway networks: Bosnian, Serbian, parts of the Hungarian, parts of the Austrian, and parts of the Ottoman.⁴⁸ A special characteristic of the “Yugoslav” railway network lay in its inclusion of four different track gauges: the normal gauge (1.45 m), and three different narrow gauges (0.6 m, 0.75 m and 0.76 m). The only integrated and well-functioning railway network was the Bosnian narrow-gauge network, but this network was isolated and had just one connection (by way of Bosanski Brod) to other parts of the Kingdom SHS. The Yugoslav railway experts understood the importance of a well-integrated national railway network for the spatial integration of the young state.⁴⁹ But the construction of one integrated Yugoslav railway network out of five different parts of inherited railway networks with four different track gauges presented them with a great challenge.

The Narrow-Gauge Railways in the Railway Experts’ Plans

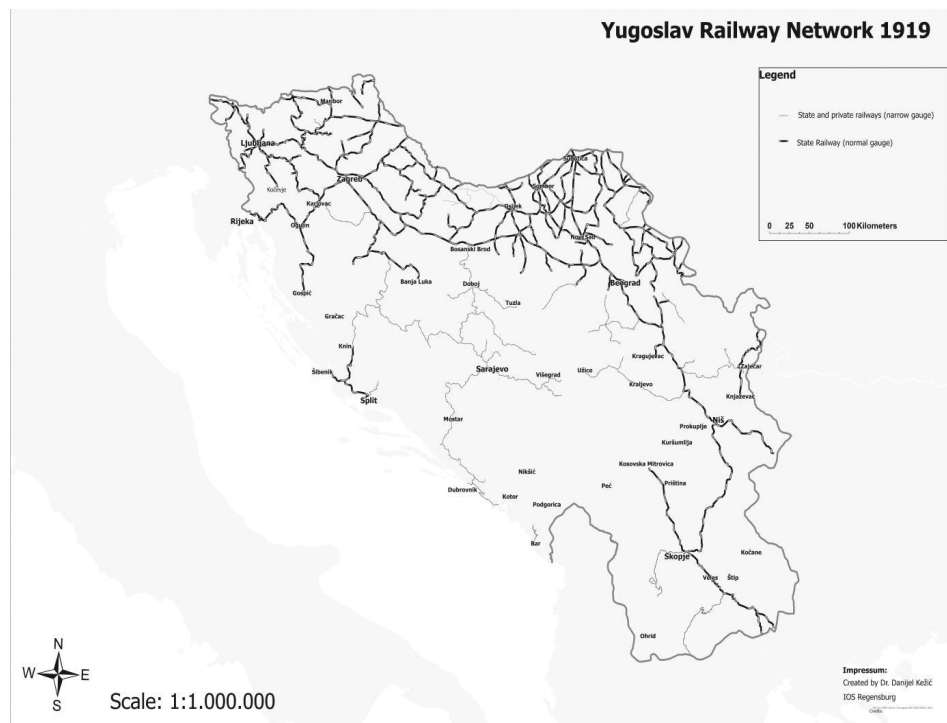
The Yugoslav railway experts were from the start confronted with the problematic heritage of narrow-gauge railways. Because of this heritage, it was

на Балканите (1800-1914) (София: Университетско издателство „Св. Климент Охридски“, 2017), 154-156, 175-177.

⁴⁸ The situation with inherited five different railway networks was unique and most complex in Europe. Greece, Bulgaria, Romania and the Czechoslovakia inherited parts of two different railway networks and Poland of three.

⁴⁹ Cf. Nikola Đurić, *Građevna politika željeznica u Kraljevstvu Srba, Hrvata i Slovenaca* (Zagreb: Kraljevska zemaljska tiskara, 1919), 8-11, 25-33; Vasković, *Građenje novih železnica*, 4-8.

very difficult to construct a new Yugoslav railway network and to spatially integrate the young state.



Map 2: Yugoslav Railway Network 1919 (D. Kežić)

The first plan concerning future railway policy in the Kingdom SHS and the construction of the Yugoslav Railway Network was published in 1919 by Nikola Đurić. According to Đurić, the rapid construction of transport infrastructure (aimed at the construction of a Yugoslav transport, economic, and national space) was the only way to eliminate the negative impact of the accumulated power of the Austro-Hungarian transport infrastructure inherited by the Kingdom SHS.⁵⁰ In Đurić's opinion, it was necessary to devise and design a completely new Yugoslav transport space and ignore the present inherited railways.⁵¹ His idea was to build the main railway lines (normal-gauge & double-track) as a basic structure of the future Yugoslav Railway Network and to connect different economic and transport spaces within the Kingdom SHS. He did not explicitly comment in his book on the problem of the narrow-gauge railway lines, because his focus was only on the main railway lines.

The idea of one integrated Yugoslav narrow-gauge railway network as an independent railway system was formulated for the first time at the Railway Conference of 1920 in Belgrade: the plan was to connect the Bosnian and Serbian

⁵⁰ Đurić, *Građevna politika*, 31-33.

⁵¹ *Ibid.* 46, 57.

narrow-gauge railway lines (0.76m) into the one “organic” Yugoslav narrow-gauge railway network, which would exist parallel to the Yugoslav normal-gauge railway network.⁵² Đurić’s vision of one new integrated Yugoslav transport space may have technically pointed towards the best solution and likely did present the right way to integrate the Kingdom SHS spatially, but such a solution was also the most expensive one. It was not easy for a Yugoslav politician to ignore the existing railway infrastructure, knowing how much had been invested in its construction in the past (the people of Serbia and Bosnia had paid for the construction of the narrow-gauge railway lines⁵³ and most of those lines, especially those in Serbia, had been built between 1904 and 1914).⁵⁴ On the other hand, the adaptation of the inherited railways (including narrow-gauge railways) was politically and economically a much more realistic option. It was for this reason that other Yugoslav railway experts tried to integrate the narrow-gauge railways into a future Yugoslav Railway Network.⁵⁵

In this context, path dependencies played an important role: the fact that the Bosnian narrow-gauge railway network already existed, was well-organized, and functioned efficiently, was used by some experts to stress the positive sides of narrow-gauge railways, and made the idea of a Yugoslav narrow-gauge railway network possible at all.⁵⁶ At the same time, the discussion over narrow-gauge tracks was not a new one for the Serbian railway experts: they had been discussing this issue since the 1890s in the Kingdom of Serbia, and most of these experts had a positive attitude towards the narrow-gauge railways, even though such railways did not work well in Serbia.

The official plan of the Directorate for Railway-Construction in Belgrade illustratively demonstrates the confusion regarding track width. This plan was similar to the Serbian Railway Act of 1898 and it considered both gauges (normal and 0.76 m narrow gauge) as possible standards. The track gauge should have been decided depending on the geographical situation and terrain in which each new railway line was situated. The construction of 1,567 km of normal-gauge railways was calculated with this in mind, as well as that of 1,484 km of narrow-gauge tracks.⁵⁷ Such railway policy was nothing more than the continuation and transfer of the failed railway policy of the Kingdom of Serbia to the Kingdom SHS.

The *Association of Yugoslav Engineers and Architects* and the Serbian railway expert Zdravko Vasković also integrated the existing narrow-gauge

⁵² *Stenografski zapisnik*, 60, 133.

⁵³ Cf. Zdravko Vasković, “Građenje novih železnica i naš izlaz na Jadransko more”, *Tehnički list* 3:18 (1921), 207-210.

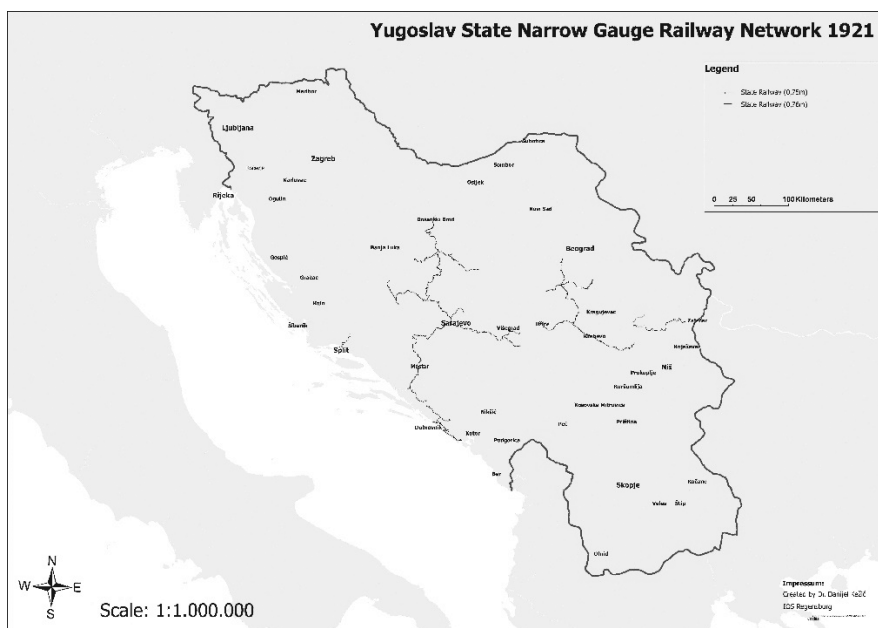
⁵⁴ Between 1904 and 1914, Kingdom of Serbia has built 18 narrow gauge railway lines in total (stretching at 532,9 km). That was a significant addition to two pre-1904 narrow gauge railway lines, 103,3 km long. Cf. Sundhassen, *Historische Statistik*, 512.

⁵⁵ Cf. Skakić, *Građenje novih železnica*, 6-10; Senjanović, *Dalmatinska željeznica*, 10-12; Vasković, “Građenje novih železnica”, 207-210; Petar Milenković, *Nova železnička mreža Kraljevine Srba, Hrvata i Slovenaca* (Beograd: Merkur 1926), 12, 23-36.

⁵⁶ Cf. Skakić, *Građenje novih železnica*, 6.

⁵⁷ Daka Popović, *Problemi naše železnice* (Novi Sad: Slavija, 1927), 15f.

railways (0.76m) into their plans for the future Yugoslav Railway Network, but their plans considered the construction of two “organic” Yugoslav Railway Networks, one of which would be normal-gauge (1.45 m) and the other narrow-gauge (0.76 m). Both railway networks would operate independently from each other, but complementary and as a unit at the same time.⁵⁸ Bosnian railway expert Miloš Skakić had similar ideas, stressing the efficiency of the Bosnian narrow-gauge railway network.⁵⁹ Petar Milenković sharply criticized the official plan as well as that of Vasković. In his plan, Milenković preferred the normalization of all main railways regardless of terrain. He was also against the construction of one narrow-gauge railway network. In his opinion (similar to that of Đurić) only some branches should continue to exist as narrow-gauge lines.⁶⁰



Map 3: Yugoslav State Narrow Gauge Railway Network 1921 (D. Kežić)

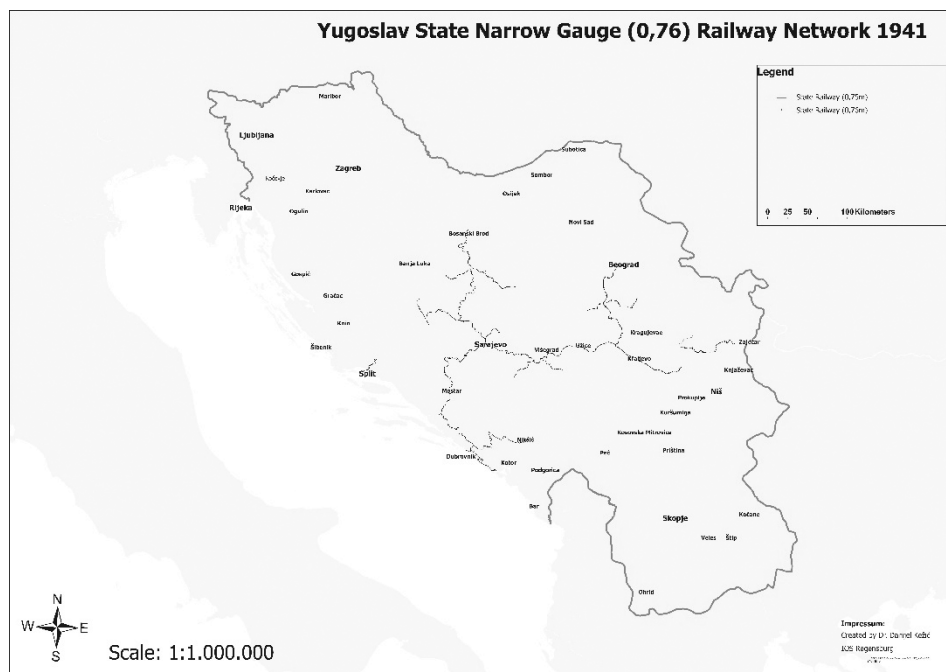
The presence of two different railway networks became the reality in the Kingdom of Yugoslavia, but their construction was incomplete. Due to the political and economic crisis of the 1930s, the planned integration of Montenegro into the Yugoslav narrow-gauge network failed and Montenegro remained isolated: only Nikšić in 1938 became a narrow-gauge railway

⁵⁸ Cf. “Druga redovna glavna skupština Udruženja jugoslavenskih inženjera i arhitekta u Ljubljani. 10 tačka dnevnog reda: Rezolucija o željezničkim vezama naše zemlje sa morem i naše morske luke”, *Tehnički list* 3:11 (1921), 131; Zdravko Vasković, *Plan buduće željezničke mreže u Kraljevini Srba, Hrvata i Slovenaca* (Beograd: UJIA, 1924), 157-161.

⁵⁹ Skakić, *Građenje novih željeznica*, 6.

⁶⁰ Milenković, *Nova željeznička mreža*, 22f.

connection to the Bosnian narrow-gauge network by way of Bileća.⁶¹ The two different railway networks divided Yugoslavia not only spatially but also socially. Uroš Krulj summarized this new reality in his 1935 book: Yugoslavia was divided into rich and poor parts, and the two railway networks materialize this divide. Because of this situation, Krulj recommended the normalization of the whole Yugoslav Railway Network step by step. He pointed to the fact that in 1912 Austria-Hungary had planned the normalization of the Bosnian railways, only the war had stopped this process. In his opinion, in the future there should be just one railway system in Yugoslavia: the normal-gauge (1.45 m) system.⁶²



Map 4: Yugoslav State Narrow Gauge (0,76) Railway Network 1941 (D. Kežić)

Due to the existing railway situation in the Kingdom SHS, the decision to construct one “organic” narrow-gauge railway network was probably politically and economically rational, but the consequences of this decision for the spatial integration of Yugoslavia were serious. Instead of one new Yugoslav transport and economic space, which should have helped to overcome cultural and historical differences, the inherited spaces were just consolidated and adapted to the new situation, preserving these differences. The existence of the “organic” narrow-gauge railway network made the building of the main

⁶¹ “Građenje železničke pruge. Preksutra se predaje saobraćaju pruga Bileća-Nikšić”, *Politika*, 10.7.1938, 15; “Na Petrovdan predaje se saobraćaju železnička pruga Bileća-Nikšić”, *Vreme*, 10.7.1938, 7.

⁶² Uroš Krulj, *Naša saobraćajna (železnička) politika* (Beograd: Knjižara Cvijanović, 1935), 28f.

railway lines and the construction of the new Yugoslav Railway Network almost impossible. Although the Yugoslav railway experts enthusiastically supported the construction of these main railway lines, all plans to build them failed because of their possible negative effect on the narrow-gauge railway network.⁶³ Consequently we can see that the accumulated power of the old infrastructure significantly shaped railway policy in the Kingdom of Yugoslavia for decades after WWI.

The “Adria-Railway(s)” and the Inherited Narrow-Gauge Railway Network(s)

The construction of the so-called “Adria-Railway(s)” was the most important question regarding railway policy after the founding of the Kingdom SHS. This railway(s) should have profoundly changed the existing economic and transport spaces and made possible the construction not only of the new transport and economic space, but also of the new Yugoslav national space.⁶⁴

The Yugoslav railway experts put forward conflicting visions regarding the priority of different Adria-Railway(s) but they had the same opinion about their importance. Seven “Adria-Railways” came into focus: 1) Lika-Railway (Zagreb–Ogulin–Knin–Split rail); 2) Una-Railway (Zagreb–Bihać–Knin–Split rail); 3) Belgrade–Užice–Sarajevo–Dubrovnik rail (narrow-gauge); 4) Transbalkan-Railway (Zaječar–Niš–Prokuplje–Priština–Podgorica–Bar) rail; 5) Belgrade–Sarajevo–mouth of Neretva (Neum) rail; 6) Belgrade–Sarajevo–Split rail; 7) Belgrade–Višegrad–Kotor rail. The first four Adria-Railways were old Austro-Hungarian and Serbian projects. Only the last three were new “Yugoslav” projects. These were at the same time the most important ones for the construction of the new Yugoslav space. Those realized were the Lika-Railway (in 1925) and the Belgrade–Užice–Sarajevo–Dubrovnik railway (in 1928), alongside the partly-realized Una-Railway and Transbalkan-Railway.⁶⁵ The projects of the Belgrade – Sarajevo – Split and Belgrade – Višegrad – Kotor railways were never built, ultimately existing only on paper even though the experts saw these two as

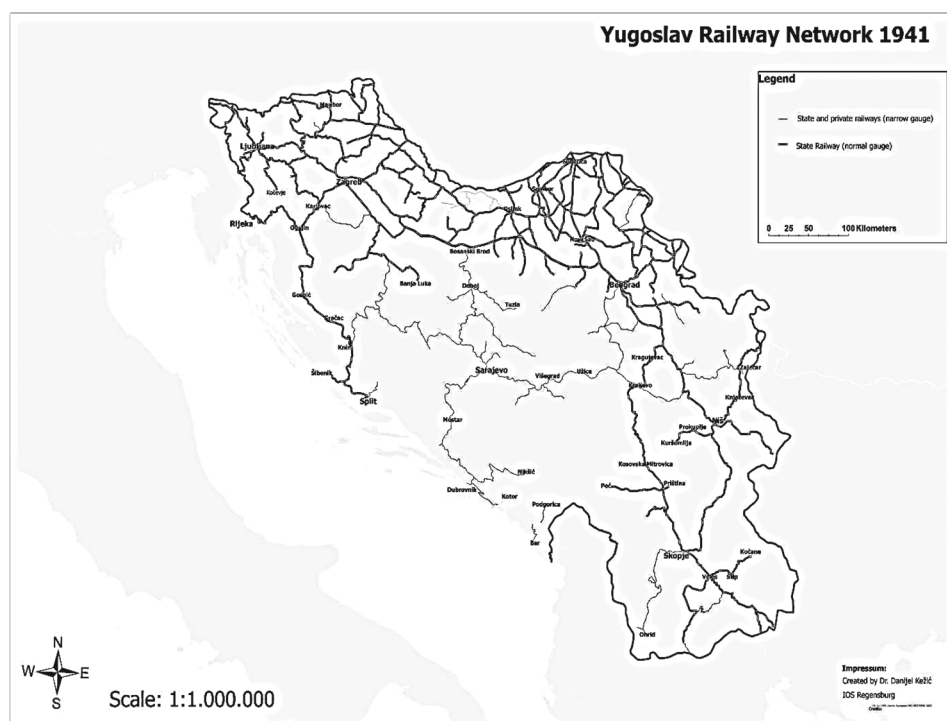
⁶³ Cf. Popović, *Problemi naše železnice*, 30-33; Senjanović, *Dalmatinska željeznica*, 10-12; St. Rakočević, *Izlaz Srbije na Jadransko more. Trasiranje pruge preko Crne Gore* (Beograd: Dom maloletnika, 1929), 7.

⁶⁴ Cf. *Stenografski zapisnik*, 44-46; Vasković, *Plan buduće železničke mreže*, 27-32, 62-85.

⁶⁵ The part of the Una-Railway from Bosanski Novi to Bihać (70 km) was finished 1924. The construction of the part from Bihać to Knin (113 km) started 1936, but this part was finished in the socialist Yugoslavia 1948. For more information about Una-Railway, see Jerko Alačević, “Unska pruga”, *Tehnički list* 21:3/4 (1939), 29-39. The Transbalkan Railway was in the Kingdom SHS/Yugoslavia intensively constructed: Knjaževac–Niš (66 km) – 1922; Doljevac–Prokuplje (22 km) – 1925; Prokuplje–Pločnik (20,3 km) – 1929; Pločnik–Kuršumljija (13,7 km) – 1930; Priština–Kosovo Polje (7 km) – 1934; Kosovo Polje–Peć (83 km) – 1936. The part from Kuršumljija to Priština was finished in the socialist Yugoslavia 1948 and the part from Peć to Adriatic coast in Montenegro has never been constructed.

the most important railway projects from the very beginning.⁶⁶ The path dependencies and the accumulated power of the inherited old infrastructure had made the realization of these projects nearly impossible.

The problem of the inherited narrow-gauge lines had a particularly negative effect on the Adria-Railway Belgrade–Sarajevo–Split railway. The leading proponent of this railway line, Petar Senjanović, proposed in 1919 the construction of this Adria-Railway as a narrow-gauge track (the Split–Sarajevo part), because the greater part of this railway (in Dalmatia and Bosnia) existed as narrow-gauge tracks. In his opinion, only the decision to normalize all of the main railways in Serbia and Bosnia would justify the construction of a normal-gauge Belgrade–Sarajevo–Split line.⁶⁷ Vasković had similar doubts concerning the normalization of the Sarajevo–Mostar line, because this normalization would destroy the Bosnian narrow-gauge railway network and cut off the remaining narrow-gauge network from the Adriatic Sea.⁶⁸



Map 5: Yugoslav Railway Network 1941 (Created by Danijel Kežić)

Due to the problem of the inherited narrow-gauge railway networks, two scenarios were possible in the case of the Adria-Railway Belgrade – Sarajevo –

⁶⁶ Cf. *Stenografski zapisnik*, 47–49, 51, 115; F. S., *Pitanje naših željeznica. Nekoliko riječi povodom željezničke ankete održane u Splitu dne 15. Februara 1920.* (Split: Narodna tiskara, 1920); Đurić, *Građevna politika*, 46,55–57.

⁶⁷ Petar Senjanović, *Nove dalmatinske željeznice i splitska luka* (Zagreb: C.Albrecht, 1919), 8f.

⁶⁸ Vasković, *Građenje novih železnica*, 53.

Split line: 1) The construction of this railway as a normal-gauge main railway, providing the basis for a future Yugoslav transport, economic, and national space. It would entail the destruction of the Bosnian narrow-gauge railway network and acceptance of the normal-gauge rail lines as the standard in the Kingdom SHS. 2) The construction of an “organic” Yugoslav narrow-gauge railway network connecting the Bosnian and Serbian narrow-gauge networks. This decision would have automatically prevented the construction of the normal-gauge Adria-Railway (Belgrade-Sarajevo-Split) and made it nearly impossible in the future.

The old railway plans and existing railways were also politically relevant after 1919, and the decision to construct an “organic” Yugoslav narrow-gauge railway network proved this fact. In this context, path dependencies played an important role: the idea of a direct railway connection between Bosnia and Serbia as well as Serbian access to the Adriatic Sea across the Bosnian narrow-gauge lines was an old one for railway experts in the Kingdom of Serbia.⁶⁹ From the Serbian perspective, the construction of a 56 km narrow-gauge railway line between Užice and Vardište was the next logical step. For this project old Serbian and Austrian construction plans were used. The construction of this railway line would directly connect the Bosnian network to the Serbian narrow-gauge railway network and open Serbian access to the sea through Bosnia and Herzegovina. This railway was successfully finished in 1925.⁷⁰ With the construction of the narrow-gauge Belgrade – Obrenovac railway line (38 km) in 1928, Belgrade was also directly connected to the Adriatic coast by way of Dubrovnik (Gruž).⁷¹ This connection had a great ideological value for Serbia, but its value for economic purposes was moderate.⁷²

Spatially, a common transport space was created for Bosnia and Herzegovina and Serbia, which existed separately from the Yugoslav normal-gauge railway network. Yet the integration of this common transport space failed because of technical and institutional problems. Due to discrepant heating systems in the passenger carriages on the Bosnian and Serbian narrow-gauge railways, in the winter it was necessary to change locomotives and wagons in Sarajevo. Consequently a direct railway connection was made only from Belgrade to Sarajevo and not to Dubrovnik.⁷³ However, such technical problems could have been solved over time with investment into a uniform heating system. A much

⁶⁹ See footnote nr. 41.

⁷⁰ P.M.L., “Prahovo-Jadran. Danas počinje svečanost, a sutra će se pustiti u saobraćaj železnička pruga Užice-Vardište”, *Politika*, 24.1.1925, 4.

⁷¹ B. Ročkoman, “Železnička veza Beograda s morem. Juče je svečano puštena u saobraćaj pruga Beograd-Obrenovac”, *Vreme*, 1.10.1928, 1.

⁷² The railways Belgrade-Zagreb-Sušak (Rijeka) and Belgrade-Zagreb-Split remained the most important railway connection of the capital city to the Adriatic coast. Because of technical obstacles, according to official time table the train needed from Belgrade to Dubrovnik ca. 31 hours, just one hour less than on the railway line Belgrade-Slavonski Brod (normal gauge)-Bosanski Brod-Sarajevo-Dubrovnik (narrow gauge).

⁷³ Cf. “Otvorenje pruge Beograd-Obrenovac”, *Jugoslavenski Lloyd*, 2.10.1928, 2; “Red vožnje na direktnoj pruzi Beograd-Obrenovac-Sarajevo”, *Politika*, 25.9.1928, 10.

bigger problem lay in the institutional disintegration of the Yugoslav narrow-gauge railway network.

Before 1912, the Railway Directorate in Belgrade had been managing not only the normal-gauge, but also the narrow-gauge railway in the Kingdom of Serbia.⁷⁴ After the Balkan Wars in 1913, the Directorate was also responsible for the railways in Macedonia and Kosovo, and after 1918 even administered the railways in Vojvodina. Consequently the Directorate was overloaded with work and the management was poor. Conversely, the Railway Directorate in Sarajevo managed the Bosnian narrow-gauge railway network excellently and was able to administer the whole Yugoslav narrow-gauge railway network. The idea to make the central Directorate in Sarajevo the chief authority for the whole Yugoslav narrow-gauge network was relevant especially after the completion of the Belgrade – Obrenovac line in 1928. On April 1st 1929, the Directorate in Sarajevo took over the management of six narrow-gauge railway lines in Serbia and thus had control over the whole Belgrade – Obrenovac – Užice – Sarajevo – Dubrovnik railway.⁷⁵ Only 11 months later, on March 1st 1930, the Directorate in Belgrade took back control over three of the six railways.⁷⁶ Obviously, political pressure on the Directorate in Belgrade was strong, and the attempt to integrate the Yugoslav “organic” narrow-gauge railway network failed at an institutional level. Consequently, the integration of this Bosnian-Serbian transport space was not completed.

An interdependence between the inherited narrow-gauge railway network(s) and the construction of the Adria-Railway(s) is worth noting. The Yugoslav experts and politicians were aware of the importance of Adria-Railway(s) for spatial and national integration. The existence of a well-functioning Bosnian narrow-gauge railway network and of old Serbian railway plans substantially complicated the realization of new plans for the Adria-Railway(s). The Kingdom SHS was neither economically nor politically able to deal with this situation. Consequently, the experts’ vision with regard to the construction of one “organic” Yugoslav railway network was not realized.

The Yugoslav Narrow-Gauge Network after 1945

In the first years after WWII, the Yugoslav communists were striving for the rapid industrialization of socialist Yugoslavia. The inherited Yugoslav transport infrastructure was a visible obstacle in this process, especially the

⁷⁴ Belgrade was a junction for Yugoslav normal and narrow gauge network. About negative consequences of this situation for the urban planning on the micro level cf. Ranka Gašić, *Železnica, država i grad. Istorija izgradnje Beogradskog železničkog čvora* (Beograd: Arhipelag, 2022).

⁷⁵ Cf. *Statistika Jugoslovenskih Železnica za godinu 1929. sa uporednim podacima za godinu 1928.* Vol. 1 (Sarajevo: Državna štamparija, 1929), 59f. Following railway lines had being took over: Beograd-Obrenovac, Zabrežje-Valjavo, Mladenovac-Lajkovac, Lajkovac-Čačak, Stalać-Užice-Vardište-Višegrad, Boljevci-Sava.

⁷⁶ *Statistika Jugoslovenskih Železnica za godinu 1930. sa uporednim podacima za godinu 1929.* Vol. 1 (Sarajevo: Državna štamparija, 1930), 69.

“organic” Yugoslav narrow-gauge network, which did not fit into the communist vision of the new socialist Yugoslavia technically or spatially. The new heavy industry based on the production of raw materials needed a well-connected railway network with high transport capacities. Two “old” inherited problems had to be solved: the construction of Adria-Railways and normalization of the narrow-gauge railway network. The Una-Railway project, which started in 1936, was finished in 1948.⁷⁷ To complete the Yugoslav railway network, it was necessary to build one more Adria-Railway line (the Belgrade – Bar railway) and to normalize the narrow-gauge Sarajevo – Ploče railway. The socialist Yugoslavia was also not a strictly centralist state as was the case before 1941, but a federal one. After 1945, six socialist republics existed officially, with their own transport and economic spaces, and the Yugoslav space was composed of these six spaces. Since the 1960s, the spatial disintegration of Yugoslavia into six (eight)⁷⁸ autonomous transport and economic spaces has become a reality.⁷⁹

The process of normalization and the decommissioning of the narrow-gauge railway lines in Yugoslavia would have taken more than 30 years, even though the issue was noticed early. In the 1950s, the Yugoslav transportation system (especially the railway network and its narrow-gauge rail lines) was recognized as the main obstacle for future economic development,⁸⁰ and since then the narrow-gauge network problem had been discussed intensely by the Yugoslav engineers.⁸¹ After the reforms of the Yugoslav Railways (in 1961 and 1965), the normalization of all narrow-gauge railway lines was just a matter of time.⁸² The realization of the two old Adria-Railway projects (the Sarajevo–Ploče and Belgrade–Bar lines) crucially affected the process of narrow-gauge normalization in Yugoslavia, and for this reason I will in the next lines analyze these two railways in the context of the solution to the narrow-gauge rail problems.

⁷⁷ Cf. Peter Jordan, *Atlas der Donauländer Verkehr. Entwicklung des Eisenbahnnetzes* (3/10) (Wien: Österreichisches Ost- und Südosteuropa-Institut, 1986), 353.

⁷⁸ Six republics (Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Montenegro, Macedonia) and two Serbian autonomous provinces (Vojvodina and Kosovo).

⁷⁹ Cf. Danijel Kežić, *Bauen für den Einheitsstaat. Die Eisenbahn Belgrad–Bar und die Desintegration des Wirtschaftssystems in Jugoslawien, 1952–1976* (München: De Gruyter, 2017), 37-137.

⁸⁰ Cf. “Zaostajanje saobraćaja”, *Borba*, 20.11.1954, 4.

⁸¹ For the first time 1957 was discussed the narrow gauge problem in Yugoslavia publicly. Dražen Bejaković was the most famous Yugoslav expert, who was against the decommissioning of the narrow gauge and especially against the normalization of the railway line Sarajevo-Ploče. Cf. “Uvek s računom. Neki elementi investicione politike u saobraćaju”, *Ekonomika politika*, 18.5.1957, 445f.; “Normalizacija pruge Sarajevo-Ploče. Osvrt na članak Uvek sa računom”, *Ekonomika politika*, 6.7.1957, 616f.; “Uvek sa računom. Osvrt na kritički članak ‘Normalizacija pruge Sarajevo-Ploče’ u EP broj 275”, *Ekonomika politika*, 7.9.1957, 833-835.

⁸² More about reforms of Yugoslav Railways: cf. Kežić, *Bauen für den Einheitsstaat*, 75-81, 133-137.

The Normalization of the Sarajevo – Ploče Railway and the Complete Abolition of the “Organic” Bosnian Narrow-Gauge Railway Network

With the completion of the normal-gauge Šamac – Zenica – Sarajevo railway in 1947, Sarajevo was for the first time directly connected to the Yugoslav (Croatian) normal-gauge network.⁸³ At the same time, the “organic” Bosnian railway network was disintegrated and Bosnia and Herzegovina divided spatially into two parts (north of Sarajevo and south of Sarajevo). After this happened, the remaining narrow-gauge railway lines could not operate as cost-effectively as they had before, and the whole system of the Bosnian narrow-gauge railway network was compromised. Still, the normalization of the remaining narrow-gauge railway lines in Bosnia and Herzegovina presented a long and expensive process. The Railway Directorate in Sarajevo had been managing the compromised and unprofitable Bosnian narrow-gauge network for almost 30 years, but in the end financial losses were so huge that the remaining narrow-gauge railway lines were not normalized but instead just shut down.⁸⁴

Only the Sarajevo – Ploče railway was normalized. It was the main transport railway artery in Bosnia and Herzegovina and provided access to the Adriatic Sea. The idea for such an Adria-Railway line originally came from Sabo Jelić, who preferred the construction of this railway at the Railway Conference of 1920.⁸⁵ During WWII the Italians finished the Ploče – Metković railway and connected the new port of Ploče to the old Sarajevo – Metković narrow-gauge railway.⁸⁶ The idea to normalize the Sarajevo – Ploče railway was publicly expressed for the first time in 1953.⁸⁷ Two years later the economic development of Bosnia and Herzegovina was seriously endangered due to the overloading of this narrow-gauge railway.⁸⁸ The federal government wanted to solve this problem through the modernization of the old narrow-gauge railways, but Bosnian

⁸³ The 238,9 km long railway line Šamac-Sarajevo was one of the most important railway projects in the First Five Years Plan; cf. Jezdimir S. Nikolić, *Istorija železnica Srbije, Vojvodine, Crne Gore i Kosova* (Beograd: Zavod za novinsko-izdavačku i propagandnu delatnost JŽ, 1980), 383; Zvonimir Jelinović, *Borba za Jadranske pruge i njeni ekonomski ciljevi* (Zagreb: Izdavački zavod JAZU, 1957), 196f.

⁸⁴ Cf. “Problemi železnice“, *Borba*, 19.1.1975, 4; “Željeznica. BiH: Ukidanje uskih pruga“, *Privredni vjesnik*, 17.2.1975, 14f.; “Izvršno veće BiH. Iz zajedničkih rezervi za ŽTP Sarajevo“, *Borba*, 22.3.1975, 6; “Železnica. Kraj uzanim prugama u BiH“, *Ekonomika politika*, 3.3.1975, 15f.

⁸⁵ Jelić had a vision of one Adria-Railway, which should be the shortest way from Belgrade to Adriatic Sea. His project was the Adria-Railway: Belgrade-Sarajevo-mouth of Neretva. He preferred a future port in Neum as an end point of the Adria-Railway. In the 1930s the experts preferred Ploče as a new port. The construction of the railway Metković-Ploče (20 km) started 1937 and the railway was finished 1942. Cf. *Stenografski zapisnik*, 104-106; Zdravko Vasković, “Građenje novih železnica i naš izlaz na Jadransko more“, *Tehnički list* 3:15 (1921), 169-172.

⁸⁶ Cf. Jelinović, *Borba za Jadranske pruge*, 205-210.

⁸⁷ “Predlog za gradnju pruge širokog koloseka. Buduća magistrala Sarajevo – Kardeljevo“, *Borba*, 28.6.1953, 7.

⁸⁸ “Problemi saobraćaja na pruzi Sarajevo-Dubrovnik“, in: *Privredni vjesnik*, 22.1.1955, 1.

politicians and experts proposed normalization as a better long-term solution.⁸⁹ This was the start of a long political battle for the normalization of the Sarajevo–Ploče railway. This Adria-Railway was finally normalized in 1966, but the price for this accomplishment was high. The Railway Directorate in Sarajevo financed the normalization itself (using international credit) and thus was financially troubled for a long time.⁹⁰ The remaining narrow-gauge railway lines were made even more unprofitable after the normalization of the Sarajevo – Ploče railway, because the Bosnian narrow-gauge network was ultimately disintegrated.

The railway reforms (in 1961 and 1966) and the reforms of the political and economic system in Yugoslavia (in 1968, 1971, and 1974) made the financial situation of the Railway Directorate in Sarajevo even worse.⁹¹ Due to financial situation, on the June 1st 1975 the ultimate decision was made to decommission all of the remaining narrow-gauge railways in Bosnia and Herzegovina, and the transport of passengers and goods was redirected to the roads.⁹² The consequences of this decision were hard for Yugoslav citizens, who lived along the narrow-gauge railways and relied on them. The idea to decommission the narrow-gauge Nikšić – Bileća – Čapljina railway was rejected in Montenegro, and the Government successfully managed to save the Nikšić – Bileća – Trebinje portion for one more year.⁹³ After the decommission of the narrow-gauge railways, Bosnia and Herzegovina lost its only direct railway connections to Serbia and Montenegro. The plans concerning construction of a new normal-gauge railway connection to Serbia (Sarajevo – Višegrad – Priboj line)⁹⁴ were never realized.

The Construction of the Belgrade – Bar Railway and the Normalization of the Serbian Narrow-Gauge Railways

The Belgrade – Bar line was the last Adria-Railway, and with its construction in 1976 the Yugoslav railway network was finally completed. For Montenegro this railway was an old dream and it was crucial for future economic development.⁹⁵

⁸⁹ Arhiv Jugoslavije (AJ) 130-960/1460: U vezi mišljenja Saveznog zavoda za planiranje po problemu povećanja prevozne moći pruge uzanog koloseka Sarajevo-Ploče (15.8.1955).

⁹⁰ Cf. Kežić, *Bauen für den Einheitsstaat*, 267.

⁹¹ In Bosnia and Herzegovina were 43% railway lines narrow gauges, but they made 1974 just 6% of company revenue. The deficit on the Bosnian railways were 503,4 million Dinar. Cf. “Problemi železnice”, *Borba*, 19.1.1975, 4; “Izvršno veće BiH. Iz zajedničkih rezervi za ŽTP Sarajevo”, *Borba*, 22.3.1975, 6.

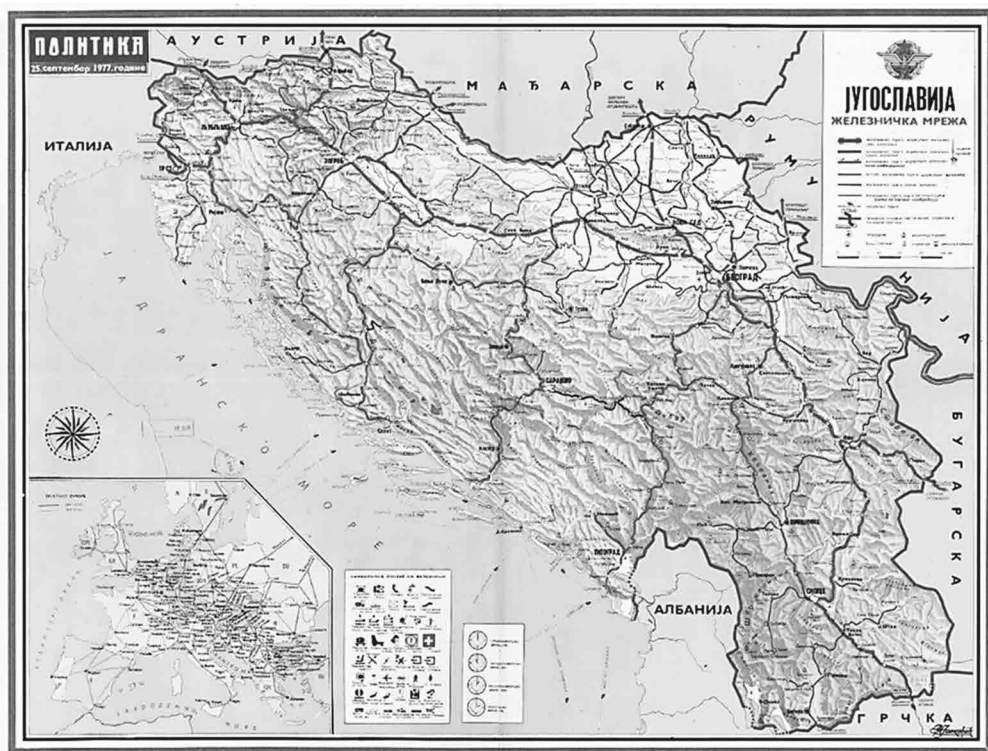
⁹² “Železnica. Kraj uzanim prugama u BiH”, *Ekonomska politika*, 3.3.1975, 15f.

⁹³ Cf. “Nikšić. Može li se produžiti vek uzanoj pruži?”, *Borba*, 3.2.1975, 8; “Železnica. Saradnja na ukidanju nerentabilnih pruga”, *Ekonomska politika*, 7.4.1975, 14; J. P., “Produžen vijek pruži Nikšić-Čapljina. Još jedno ljeto”, *Pobjeda*, 27.5.1975, 1; Jovan Dujović, “Poslenje putovanje Ćirom Nikšić-Trebinje. Voz je umro u brdima”, *Pobjeda*, 29.5.1976, 11.

⁹⁴ “ŽTP Sarajevo. Studija o novoj pruži”, *Ekonomska politika*, 5.4.1976, 37.

⁹⁵ Cf. Kežić, *Bauen für den Einheitsstaat*, 48, 88f., 362.

In socialist Serbia, the narrow-gauge railway network was considered a problem. Since the 1950s Serbian politicians had pointed out that transport costs were higher in Serbia than they were in other republics because of the narrow-gauge railway lines. The construction of the Belgrade – Bar line was considered as a potential solution for this problem.⁹⁶ Approximately 25% of Yugoslav railway lines were narrow-gauge, and almost all of them were located in Bosnia and Herzegovina, Montenegro, and Serbia. Due to the unprofitability of most of the narrow-gauge railway lines in socialist Yugoslavia, the first public voices calling for their decommission came in the late 1950s: the narrow-gauge railway lines were stigmatized as main reason for the unprofitability of the Yugoslav Railways.⁹⁷



Map 6: Yugoslav Railway Network 1977/Source: Biblioteka Matice Srpske (BMS_8a III 1230_1977)

Due to economic reforms in the 1960s, the problem of the unprofitability of the Yugoslav Railways became even bigger than it had been. Because of the narrow-gauge lines, transport costs in Serbia were 10% higher than the average in the rest of Yugoslavia, and this situation negatively impacted the

⁹⁶ AJ 130-829/37: Stenografske beleške sa sastanka proširenog Odbora za privredu održanog 20.2.1955. godine (20.2.1955).

⁹⁷ “Stanje i perspektiva železnica. Prividno rentabilne”, *Ekonomska politika*, 11.10.1958, 950f.

development of Serbian industry and economy.⁹⁸ The first official plan regarding the construction of the Belgrade – Bar railway in 1962 considered the decommission and normalization of 390 km (out of 700 km) of narrow-gauge railway lines in Serbia.⁹⁹ In the discussion on the Belgrade – Bar railway in 1966, the main argument to build this railway in Serbia focused on the “liquidation” of the narrow-gauge network.¹⁰⁰ During the construction of the Belgrade – Bar railway from 1966 to 1976, hundreds of kilometers of narrow-gauge lines in West Serbia were either normalized or decommissioned, and so transport costs in Serbia were significantly reduced.

The situation in Montenegro was different. The narrow-gauge Titograd – Nikšić (1948) – Bileća (1938) railway was the only connection from Montenegro to the rest of Yugoslavia. The first normal-gauge line in Montenegro was the Titograd – Bar (1959) railway.¹⁰¹ This railway was a part of the future Belgrade – Bar line and was unprofitable for years. One reason for this was the fact that the Titograd – Nikšić railway had not been normalized until 1965.¹⁰² After the shutting down of the narrow-gauge Nikšić – Bileća line on May 30th in 1976, Montenegro lost its only railway connection to Bosnia and Herzegovina. At the same time, with the opening of the Belgrade – Bar railway Montenegro got a direct connection to Serbia and Belgrade, and was for the first time integrated into the Serbian transport and economic space.

Conclusion

The case of the Bosnian and Serbian narrow-gauge railway networks proves the thesis about the accumulation of power of infrastructure once it is constructed, and shows how resilient such infrastructure can be. The consequences of the temporary measures taken by the Austrian military in building the Bosanski Brod – Dobož – Zenica railway as a narrow gauge (0.76m) line were noticeable for almost a century, not only in Bosnia and Herzegovina but also in the Kingdom of Serbia, and even later in the first and second Yugoslavia. The Bosnian narrow-gauge network materialized and spatially integrated the transport and economic space of Bosnia and Herzegovina within Austria-Hungary. The accumulated power of this network at first affected railway policy in the Kingdom of Serbia, and is co-

⁹⁸ “Zajednička sednica Republičkog i Privrednog veća Srbije. Izuzetan značaj izgradnje pruge Beograd-Bar”, *Borba*, 14.7.1964, 4.

⁹⁹ AJ 599-234: Izveštaj izvestilaca o pregledu investicionog programa dovršenja izgradnje železničke pruge Beograd-Bar (1962), 237; “Modernizuju se pruge u Srbiji. Još malo – zbogom čiro”, *Borba*, 7.8.1964,6; “Modernizacija željeznica u Srbiji”, *Privredni vjesnik*, 15.8.1964, 8.

¹⁰⁰ AS G-19-69: Sednica Republičkog Izvršnog Veća, održana 24.11.1966. Stenografske beleške, 228-232.

¹⁰¹ The grand opening of the Titograd-Bar railway was on the 29.11.1959. For more details cf. Kežić, *Bauen für den Einheitsstaat*, 172-175.

¹⁰² *Ibid.* 222-224.

responsible for preventing the integration of the Serbian transport and economic space and for the confusion surrounding the issue of track width. After 1918, the Bosnian narrow-gauge railway network negatively affected the spatial integration of Yugoslavia for decades. The existence of the Bosnian and Serbian narrow-gauge railway networks was one of the main obstacles preventing the construction of the Yugoslav transport and its economic space. The accumulated power of the Yugoslav narrow-gauge railways was also noticeable in socialist Yugoslavia, complicating and decelerating the process of socialist industrialization for decades.

Using the concept put forth by Maria Todorova, mentioned in the introduction into this volume,¹⁰³ one can clearly describe the Bosnian narrow-gauge railway network in the Kingdom SHS as an example of “Austro-Hungarian heritage as continuities”. In this context, the Railway Directorate in Sarajevo is crucial: not only the whole railway network but also the institution itself, including its employees, was inherited and continued to exist in the new state. After the construction of the normal Šamac – Sarajevo line, the Bosnian narrow-gauge railway network ceased to exist in its old form. Accordingly, in the context of Bosnian narrow-gauge railways only “Austro-Hungarian heritage as perception” remained.¹⁰⁴ The situation concerning Serbian heritage in the Kingdom SHS was similar, and the Serbian narrow-gauge railways, including the Railway Directorate in Belgrade, can be considered an example of “Serbian heritage as continuities”. Due to this heritage, the attempted institutional centralization of the Yugoslav narrow-gauge railway network failed.

The ultimate decommission of the narrow-gauge railways in Bosnia and Herzegovina and Serbia took place in the 1970s, and only then did the accumulated power of the old Bosnian and Serbian narrow-gauge railways vanish completely. But in the meantime, Yugoslavia was transformed into six (eight) autonomous transport and economic spaces, and the construction of one new Yugoslav transport and economic space was not a realistic option anymore.

¹⁰³ Cf. Maria Todorova, “Der Balkan als Analysekategorie: Grenzen, Raum, Zeit”, *Geschichte und Gesellschaft* 28 (2002), 471-473.

¹⁰⁴ The memory about “good Austrian narrow-gauge railways” in Bosnia and Herzegovina lives until today.

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