

The gentleman asked me politely to let him see some of my previous work and, very quickly, I replied that I had forgotten my portfolio at home but that I would have sent him a copy the following day. Although I had nothing to show! I arrived home and started to photocopy images and pictures from the all the housing magazines I had at home, picking projects that I thought he would like. I spent the night cutting and pasting, selecting and collating. The next day, as promised, I sent him my portfolio. A few days later he called me and told me that he had chosen me as the architect for his project. I could not believe it. I had made it! I, a Piedmontese woman, false, very false but courteous. That is how I was able to get my first client ... and so began my adventure!

I don't encourage nor recommend you to lie! However, I'd like to persuade you to believe that dreams can come true!

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The Role of Female Architects
in Designing Schools in Belgrade (1918-1941)

Introduction

The end of the First World War brought both the shortage of architects and buildings on the territory of the newly formed Kingdom of Serbs, Croats and Slovenes. Belgrade, the Kingdom's new capital, lost around 25% of its buildings in war.¹ This led to an intensive reconstruction throughout the State, investing in the infrastructure and building new elementary schools, high schools, gymnasiums and University buildings.

Milena Zindović was one of the first researchers who noticed that a significant number of female architects who worked in the Ministry of Civil Engineering and the Belgrade Municipality were given project tasks which were often involved with educational architecture.² Interestingly, Snežana Toševa published some 15 female architects out of 43 employees who worked in the Ministry of Civil Engineering during the interwar period.³

Danica Kojić (1899–1975) was one of the Ministry's architects in charge of designing schools and developing educational architecture. She was the author of numerous schools which were built

1 Ranka Gašić, "Urbanizacija međuratnog Beograda: Primer naselja Kotež-Neimar," *Istorija 20. veka 2* (2009), 53; Ivona Fregl, "Draginja Petrović-Petković (1899–1995): Prilog proučavanju dela žena arhitekata u Srbiji," *Arhitektura i urbanizam* 14–15 (2004), 91.
2 Milena Zindović (ed.), *Žene u arhitekturi: Savremena arhitektura u Srbiji posle 1900* (Beograd: Centar za arhitekturu, 2014), 69.
3 See Snežana Toševa, "Arhitektonsko odeljenje Ministarstva građevina Kraljevine Jugoslavije i njegov uticaj na razvoj graditeljstva u Srbiji između dva svetska rata" (PhD thesis, University of Belgrade, 2012), 336–9, <http://phaidravg.bg.ac.rs/o:6475> (accessed June 1, 2018).

throughout the country. These projects were typically similar since the priority was that they should be functional and well-designed on a low budget. This was especially visible on projects for village schools, which all were constructed with elements of local traditional architecture.⁴ Apart from her most significant contributions in school architecture, Milica Krstić (1887–1964) also designed the Elementary Schools in Godačica (1923),⁵ Slatina and Dugo Polje (1924),⁶ Gornji Matejevac (1925),⁷ Crnobarski Salaš (1926)⁸ and Vinicka (1928).⁹

Živana Bogdanović (b. 1897) worked in the Ministry of Civil Engineering and during 1925–26 she was in charge of developing school buildings.¹⁰ She designed the Elementary School in Zavidović in 1928–29 and the Gymnasium in Jagodina in 1930–32 as an example of Modern architecture.¹¹

Stanislava Jovanović-Hristodulo (b. 1901) was also a part of the developing team for elementary schools.¹² Apart from constructing the College for Teachers and Faculty of Veterinary Medicine in Belgrade, Jovanka Bončić-Katerinić (1887–1966) also designed numerous elementary schools throughout the country.¹³

Draginja Petrović-Petković (1899–1995) designed two elementary schools in Skopje.¹⁴

Vera Ćirković (1912–2002), a female architect who had a significant impact on school architecture in post-war Belgrade, began her career in the Ministry of Civil Engineering. One of her first tasks was to be a committee member for the project of the Sixth Gymnasium in Belgrade from 1940 to 1942.¹⁵

Even though research has shown that many female architects worked on the development of educational architecture throughout the country, we will focus on three authors whose schools reshaped the educational systems in interwar Belgrade and also introduced a new and innovative design approach in school architecture.

Milica Krstić (1887–1964)

Milica Krstić is considered to be one of the most important female architects in Serbia and Yugoslavia during the first half of the Twentieth century. She started studying architecture at the Belgrade University in 1906. During her studies, she met Žarko Krstić (?–1941),¹⁶ whom she later married. She graduated in 1910 and worked in private praxis until 1915 when she started to work at the Department of Architecture of the Ministry of Civil Engineering.¹⁷ In 1938 she became the head of the Department for public buildings and in 1940 reached the highest position as an architect in the Ministry of Civil Engineering.¹⁸ However, in 1941 she retired from service. She received a medal of Saint Sava in 1928 and 1935 and a medal Yugoslav Crown in 1939.

Milica Krstić was fluent in French, Spanish, English and German.¹⁹ She was also a member of architectural societies, such as The Architect's Club, where she held several lectures. Milica Krstić was also active in women's societies, for example, *Kolo srpskih sestara* (The Circle of Serbian Sisterhood) and the Yugoslav Women's League for Peace and Freedom. Milica Krstić was an active spokeswoman of female equality, especially in the field of architecture.²⁰

The Second Gymnasium for Girls (1931–36)

For decades there was an initiative to erect a new building for the Gymnasium for Girls.²¹

Since Milica Krstić graduated from this school,²² her election for the project design was not unusual. However, this was the first example that a female architect had an opportunity to design such an ambitious project. The building covered the area of 3000 m², with over 5000 m² large courtyard.²³ Milica Krstić was also the supervisor over 300 workers on site during the construction.²⁴ The building

4 Snežana Toševa, "Danica Kojić (1899–1975)," *Godišnjak grada Beograda* 43 (1996), 99–121.

5 *Collection of Projects*, no. 098, Ministry of Civil Engineering Fund, Archives of Yugoslavia (or AY).

6 Slobodan Bogunović, *Arhitektonska enciklopedija Beograda XIX i XX veka: Arhitekti* (Beograd: Beogradska knjiga, 2005), 893.

7 *Collection of Projects*, no. 167, Ministry of Civil Engineering Fund, AY.

8 Bogunović, *Arhitektonska enciklopedija Beograda*, 893.

9 *Collection of Projects*, no. 145, Ministry of Civil Engineering Fund, AY.

10 Divna Đurić-Zamolo, "Građa za proučavanje žena arhitekata sa Beogradskog univerziteta generacije 1896–1940. godine," *PINUS Zapisi* 5 (1996), 18.

11 *Collection of Projects*, no. 057, *Ministry of Civil Engineering Fund*, AY.

12 Đurić-Zamolo, "Građa za proučavanje žena arhitekata," 36.

13 Đurić-Zamolo, "Građa za proučavanje žena arhitekata," 20.

14 Fregl, "Draginja Petrović-Petković," 96.

15 Ministry of Civil Engineering Fund, f-62-1454, AY.

16 Zoran Manević (ed.), *Leksikon neimara* (Beograd: Građevinska knjiga, 2008), 211.

17 *Personal files - Milica Krstić*, ff. 62–39, Ministry of Civil Engineering Fund, AY.

18 Toševa, *Arhitektonsko odeljenje Ministarstva građevina*, 46, 110.

19 Zindović Žene u arhitekturi, 69–72.

20 Zindović Žene u arhitekturi, 73.

21 "Druga ženska gimnazija će, u toku sledeće godine, dobiti veliku modernu školsku zgradu," *Vreme*, March 17, 1931, 6.

22 Snežana Toševa, "Arhitekt Milica Krstić (1887–1964)," *Godišnjak grada Beograda* 44 (1997), 100; Zindović, *Žene u arhitekturi*, 71.

23 "Druga ženska gimnazija," 6; Zindović (ed.), *Žene u arhitekturi*, 71.

24 *Documents for the first part of the construction of the new Second Gymnasium for Girls, Construction Diary*, Ministry of Civil Engineering Fund, f -62-1454, AY.



Fig. 1. Milica Krstić, The Second Gymnasium for Girls, 1931–36. Courtesy of Vladana Putnik Prica.

was finished by the end of 1932 and in October 1933 the school opened its doors to pupils, while the interior work lasted until 1936.²⁵

The Second Gymnasium for Girls is a rare and a remarkable example of the Serbo-Byzantine style in Belgrade architecture (Fig. 1). Since there was a brief initiative to form a monastery within the school complex, the Neo-Medieval architecture was not an unusual choice.²⁶ Although the architecture of the gymnasium was Eclectic, the elements Milica Krstić used were a clear example of Medieval Serbian architecture, such as rosettes, floral ornaments and 'chess-fields'.

The facade of the gymnasium was made of artificial stone, including all the ornaments. The central zone of the building, where the main entrance was located, had the inscription and coat of arms in the upper level. The building also had a chapel of Saint Natalija, whose apse is still visible on the facade of the courtyard. Unfortunately, the chapel was destroyed after the Second World War.²⁷

Although the architecture of the Second Gymnasium for Girls seemed rather traditional, the interior had many modern and functional elements. In this project Milica Krstić introduced xylolite floor with Dermas emulsion. However the Ministry of Civil Engineering refused her innovative proposal due to the fact that it had to be imported and the floors were eventually covered with parquet. On the other hand, she managed to place neon lights in classrooms.

Each classroom had its own cloakroom for pupils and the classrooms were wired for the first time so that the headmaster could audio-control the classes. The gym had a projector for sound films

and it occasionally served as a theatre.²⁸ A kitchen and a dining-room were additionally constructed for underprivileged pupils.²⁹

The grand opening of the Gymnasium was a significant event, especially for the fact Queen Marija Karađorđević (1900–1961) attended the ceremony. In her honour, the gymnasium was named after her.³⁰

Despite the fact that it was recognized as a remarkable architectural project, it was criticized at the time by architect Aleksandar Deroko (1894–1989), claiming Milica Krstić chose a completely inappropriate style for a modern gymnasium.³¹ Writer Rade Drainac (1899–1943) also criticized the building, thinking it resembled a casemate or a monastery more than a gymnasium.³²

Some contemporary historians of architecture, like Aleksandar Kadijević, also considered it to be a less successful example of this particular Eclectic architectural style. He claimed Milica Krstić pretentiously over-decorated and disproportioned the facades. However, he also underlined it to be one of the most representative and one of the most monumental school buildings in the country, and also one of the most explicit examples of the National style in Yugoslav interwar architecture.³³

The First Gymnasium for Boys (1936–38)

After she successfully conducted the construction of the Second Gymnasium for Girls, Milica Krstić was put in charge of designing another significant school building, the First Gymnasium for Boys. Once again, she was supervising the building's construction, with Vera Ćirković as her assistant.³⁴ It was noted she was very strict with the workers.³⁵ The project was finished in 1936, however, due to the limited budget, the building's construction was finished in 1938. The press noted that the gymnasium was built according to the latest standards in school architecture, with very good lighting.³⁶

28 Lj. B., "Učionice će biti vezane sa direktorovom kancelarijom mikrofonom," *Pravda*, May 20, 1932, 3.

29 *Construction billing*, f-62-1455, Ministry of Civil Engineering Fund, AY.

30 "Nj. V. Kraljica Marija prisustvovala je svečanom osvećenju Druže beogradske ženske gimnazije, koja nosi njeno ime," *Beogradske opštinske novine* 1 (1936), 66.

31 Miloš Crnjanski, "Naše starine," *Vreme*, April 15, 1933, 19.

32 Toševa, "Arhitekt Milica Krstić," 103.

33 Kadijević, *Jedan vek traženja nacionalnog stila*, 239–240; Aleksandar Kadijević (ed.), *Byzantine Architecture as an Inspiration for Serbian New Age Architects* (Belgrade: Serbian Academy of Science and Arts, 2016), 61–2, Exhibition catalogue.

34 Toševa, *Arhitektonsko odeljenje Ministarstva građevina*, 337.

35 *The First Gymnasium for Boys*, f-62-1446, Ministry of Civil Engineering Fund, AY.

36 "Beograd je dobio još dve moderne gimnazijske zgrade," *Beogradske opštinske novine* 5 (1938), 441.

25 *Construction Diary*, f-62-1454; *Construction billing*, f-62-1455; f-62-1457; Ministry of Civil Engineering Fund, AY.

26 Aleksandar Kadijević, *Jedan vek traženja nacionalnog stila u srpskoj arhitekturi (sredina XIX - sredina XX veka)* (Beograd: Građevinska knjiga, 2007), 240

27 Toševa, "Arhitekt Milica Krstić," 103.

Unlike the romantic Serbo-Byzantine style of the Second Gymnasium for Girls, Milica Krstić chose an uncompromised Modern design for her new project. A rational and functionalist approach was most likely led by the numerous limitations, from financial to urban disposition.³⁷ However, the radical turn Milica Krstić took with this project also indicates she most likely tended to improve her approach and avoid critiques that her previous project brought her.

The building consists of one central and two side wings framing a spacious courtyard. Milica Krstić emphasized the corners by making them convex. The main entrance on the facade was deliberately placed asymmetrically to the right. A slight protrusion emphasises the entire vertical corpus of the entrance zone from the facade line and the roofline. The entrance consists of three identical double doors. Interestingly, the main motif is the visible staircase zone, a vertical line of small windows with a mast on top, which balances the overall horizontality of the facade.

Jovanka Bončić-Katerinić (1887–1966)

Although she was the fourth woman architect in Serbia, Jovanka Bončić-Katerinić was the first one with a diploma from the High Technical School in Darmstadt in 1913. She was also one of the first woman architects in Germany.³⁸ During her university years, she met Andrija Katerinić (1883–1968), whom she married, and the couple lived in Russia/Soviet Union until 1922, when they came to Belgrade. Like her fellow colleague Milica Krstić, Jovanka Bončić-Katerinić was fluent in German, Russian and French.³⁹

While she worked in the Ministry of Civil Engineering, her two most significant works were University buildings: College for Female Teachers 'Queen Marija' and Faculty of Veterinary in Belgrade. Apart from these edifices, it is presumed she designed or adapted the Gymnasium in Smederevo and several elementary schools in Yugoslavia. Jovanka Bončić-Katerinić also assisted Petar Bajalović (1876–1947) during the construction of the Faculty of Law in Belgrade.⁴⁰ In 1928 she received a medal of Saint Sava and in 1939 a medal Yugoslav Crown.

Despite her successful career, her job in the Ministry of Civil Engineering was unstable during the Second World War. She managed to stay in service until 1944 when she finally got fired. She officially retired in 1946.⁴¹

College for Female Teachers 'Queen Marija' (1931–35)

Jovanka Bončić-Katerinić worked on the complete design of the College for Female Teachers from 1931 to 1932. She was also the supervisor during the building's construction.⁴²

The building had fifteen classrooms, seven classrooms for specific courses, two libraries, an ambulance, a congress hall, a gym and offices for professors with apartments for the director and the janitor.⁴³ The building also had a central heating system.⁴⁴ When it was finished, it was the largest college for teachers in Yugoslavia.⁴⁵

The college building represents an example of modernised classical architecture. The building is 'L-shaped' with a ground floor and three upper levels. The congress hall was typically placed above the main entrance with large windows, thus emphasizing the entire vertical zone. The entrance is designed in a more modern way, with three double doors. Above the entrance are a concrete canopy and two masts. However, unlike some typical examples of eclectic classical architecture, the entrance is not located in the central zone of the main facade, but to the far right, introducing asymmetry, similar to Milica Krstić's First Gymnasium for Boys. The monumental main facade, 50 m wide, was covered with artificial stone. The main staircase was made of granite, the hall floor was covered with terrazzo mosaic and the plinth was made of marble.⁴⁶

Faculty of Veterinary Medicine (1939–47)

After her successful project for the Teacher's College, Jovanka Bončić-Katerinić was put in charge of designing the Faculty of Veterinary Medicine in 1939. The building had an amphitheatre, a

37 Toševa, "Arhitekt Milica Krstić," 104–5.

38 Draginja Maskareli, "O delatnosti arhitekta Jovanke Bončić-Katerinić," *Leskovački zbornik* 43 (2003), 217–8.

39 *Personal files - Jovanka Bončić-Katerinić*, f-62-32, Ministry of Civil Engineering Fund, AY.

40 Maskareli, "O delatnosti arhitekta Jovanke Bončić-Katerinić," 218; Đurđija Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić u Beogradu: Ženske učiteljske škole i Veterinarskog fakulteta," *Godišnjak grada Beograda* 55–56 (2008–2009), 267.

41 *Personal files - Jovanka Bončić-Katerinić*, f-62-32, Ministry of Civil Engineering Fund, AY.

42 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 276.

43 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 271–4.

44 F-62-1463, Ministry of Civil Engineering Fund, AY.

45 "U Beogradu se podiže još jedna moderna školska zgrada," *Vreme*, June 6, 1932, 7.

46 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 220–1, 275–6.



Fig. 2. Jovanka Bončić-Katerinić,
Faculty of Veterinary Medicine,
1939–47.
Courtesy of Vladana Putnik Prica.

restaurant for students, several museum rooms, libraries and six Institutes.⁴⁷ Jovanka Bončić-Katerinić claimed she designed the edifice in accordance with the latest Veterinary Medicine Faculty buildings in Europe.⁴⁸ The construction of the building was interrupted by the Second World War. When her job was at stake, Jovanka Bončić-Katerinić pled to the officials not to fire her so that she could finish the Faculty of Veterinary Medicine.⁴⁹ When it was finished, the building had all the modern equipment which was necessary for working with animals. The classrooms had special air conditioning.⁵⁰ It was the most modern Faculty of Veterinary Medicine in the Balkans.⁵¹

Comparing to her previous project, the Faculty of Veterinary Medicine building is freed from most elements of classical architecture (Fig. 2). The vertical elevation is modern and the only 'decorative elements' are two masts and the inscription. Despite that, Jovanka Bončić-Katerinić called this style 'modernized renaissance'.⁵²

The building has one main wing with three smaller wings protruding from the central one, a ground level and four upper floors. However, since the building was constructed on a terrain lower than the street level, the access to the main entrance on the second floor is through a small bridge over a moat.⁵³ The entrance was covered with granite and like in her previous project; it has a massive canopy. The original facade was made of artificial stone.⁵⁴ Unfortunately, the building was

overbuilt and its original appearance is mostly lost. On the other hand, the interior design is mostly intact, where Jovanka Bončić-Katerinić used granite for the main staircase and marble for subtle decoration.

Desanka Manojlović

Desanka Manojlović's both personal and professional life are little known and the insufficiency of historic documents only emphasizes her obscurity.

Unlike the previous two female architects, Desanka 'Šanka' Manojlović worked in the Technical Direction of the Belgrade Municipality. Apart from her most known building, the Elementary School 'Queen Marija', Desanka Manojlović also designed two more schools: 'Karađorđe' in 1928 and the Elementary School on Topčider Hill in 1936. She is also the author of the Children's Health Centre from 1930.⁵⁵

Elementary School 'Queen Marija' (1930–33)

One of the new schools which were constructed in the Belgrade's suburbs during the 1930s was the Elementary School 'Queen Marija.' The newspapers of the time noted the school was designed in a Modern style, claiming it 'will be one of the most beautiful Elementary Schools in Belgrade.' It was also noted that this was the first elementary school that was designed in accordance with the newest architectural innovations and pedagogical standards.

Desanka Manojlović designed six classrooms for 400 pupils, as well as a gym with a bathroom. The school also had an apartment for the school principal. A park was especially designed in front of the school. Desanka Manojlović was also the supervisor during the building's construction.⁵⁶

The school's design could be easily considered one of the most elaborate and successful examples of Modern architecture with elements of Art Deco and Expressionism in Belgrade.

The building was ground-levelled, with two identical entrances on both sides of the main facade. The entrances were also the main visual motifs of the entire edifice. They were withdrawn from

47 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 282, 284–5.

48 F-62-1485, Ministry of Civil Engineering Fund, AY.

49 F-62-32, Ministry of Civil Engineering Fund, AY.

50 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 286.

51 F-62-1485, Ministry of Civil Engineering Fund, AY.

52 F-62-1485, Ministry of Civil Engineering Fund, AY.

53 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 221–2.

54 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 284–286.

55 For the information about Desanka Manojlović I thank Miloš Jurišić and Milan Milovanović; Manević, *Leksikon neimara*, 254.

56 "Podizanje nove moderne Osnovne škole na predgrađu Kraljice Marije," *Beogradske opštinske novine* 6 (1930), 70.

the angles but were placed within protruding cylinders. Both entrance zones were covered with expressive horizontal stripes, thus enlivening the non-ornamental calmness of the central body.⁵⁷

In 1981 the school was readapted to be the head building of the Faculty of Organisational Sciences and since then it was overbuilt several times, thus entirely losing its original architecture.

Conclusion

Regarding female architects who were the subjects of this research, it can be concluded with little doubt that their sex did not represent an obstacle to their career development. Apart from the several female architects who designed ambitious and elaborate projects, many of their colleagues like Jelica Vrako Mihanović, Danica Novaković, Anka Zečević and Živana Bogdanović were often placed as members of the project approval committees.⁵⁸

Interestingly, both the husband of Milica Krstić, Žarko Krstić and the husband of Jovanka Bončić-Katerinić, Andrija Katerinić, designed elementary schools during their carrier in the Technical Direction of Belgrade Municipality.⁵⁹ Even though both of them managed to make a strong impact on the development of school architecture, it can undoubtedly be concluded that their wives' contributions to the modernization of schools in Belgrade are far more significant than theirs.

Today, two gymnasiums by Milica Krstić have a status of historic monuments.⁶⁰ Unfortunately, other examples were not recognized in time as important examples of interwar architecture and had suffered multiple changes since. Despite that, the overall impact that the first generations of female architects had on the development of school architecture in Belgrade is immense and therefore deserves to be more thoroughly analysed in the future.

57 f-X-42-1933, Technical Direction of the Belgrade Municipality, Historical Archives of Belgrade (or HAB).

58 *The First Gymnasium for Boys*, f-62-1446; *Construction Diary*, f-62-1454, Ministry of Civil Engineering Fund, AY.

59 Žarko Krstić, "Školske zgrade za osnovnu nastavu u Beogradu," *Beogradske opštinske novine* 16 (1931), 1037–1050; Manević, *Leksikon neimara*, 187.

60 *Official Gazette of the City of Belgrade*, 12 (1989); 26 (1992).

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The Design of Educational Buildings in Portugal:
A Feminine Contribution in the 1960s

Introduction

During the first Republic, in the early twentieth century, a clear emphasis was given to educating people, since most Portuguese were illiterate. Many primary schools were built, and a national educational system was sketched.

The year 1934 was a turning point regarding school building construction due to the creation of the Department of Construction for Technical and Secondary Education (JCETS)¹ within the Ministry of Public Works and Communications. Up to its extinction in 1969, JCETS centralized almost all public schools building production, which included secondary schools (lyceum and technical) and middle education (industrial institutes, agricultural and primary teaching schools).²

JCETS was created in the year following the establishment of the dictatorial regime of the *Estado Novo* (New State) in Portugal that lasted until the 1974 Revolution, centralizing all stages of production and design and finishing the collaboration with architects outside the department. Maria do Carmo Matos worked in this department since 1955 until its extinction (1969), being the first female architect.

This paper seeks to contribute towards an understanding of the role of Maria do Carmo Matos in school building design, given the historical, cultural and technical conditions within the post-

1 Junta das Construções Escolares para o Ensino Técnico e Secundário (JCETS) is the Portuguese office for the design and supervision of secondary school buildings.

2 Alexandra Alegre, *Arquitectura Escolar: O Edifício Liceu em Portugal (1882–1978)* (Lisbon: Fundação Calouste Gulbenkian, 2012).