

Ljubinka Trgovčević

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## High School, University of Belgrade and Modernization of Serbia (1863-1914)

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### Modern Serbia and Education

Like in the majority of modern European states founded during the 19<sup>th</sup> century, particularly those created by a separation from multinational empires, also in Serbia the entire century passed in constituting the state and building the necessary state institutions. Serbia was created in a several decade long process, starting from the uprising in 1804 and ending with obtaining the independence in 1878. In this process, it changed its borders several times and in the course of about 80 years it increased its territory 2.3 times, whereas the number of citizens soared more than six times. The state was built by a separation of territories from the Ottoman Empire, the least developed part of Europe of that time, while its peripheral location therein only contributed to its difficult economic and social position. On the other hand, geographically positioned at the edge of the Christian and more developed Europe, it was also the final point reached by the European modernization developments, ideas and processes.<sup>1</sup>

This destiny of a double periphery made the Serbian society one of the most underdeveloped in the 19<sup>th</sup> century Europe, whereas the process of transition to a modern state was largely determined (and burdened) by a historic legacy of centuries of living in a foreign state and foreign culture. Instead of being a driving force of development, all territorial expansions, apart from resulting in an increase of population, in fact meant lagging behind and even declining in the development achieved so far. Namely, due to the constellation of historical and political circumstances, all the territories incorporated to the motherland were even less developed; thus with adding of new regions and new population, the development indicators suddenly declined instead of showing some sort of progress. For example, in the districts incorporated to Serbia after 1878, there were only 45 schools, whereas the entire county of Niš only had 75 literate inhabitants.

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<sup>1</sup> This research is a part of the project *Gender equality and culture of civil status: historical and theoretical foundations in Serbia* (No. 47021), financed by the Ministry of Science of the Republic of Serbia.

What was missing could not be supplemented quickly; this is proved also by the data that in 1890 14.17% of people were literate in the entire Serbia (including the parts incorporated after 1878), with this percentage being still incomparably lower in the new regions: in Toplica county 5.19%, Vranje county 6.18%, etc.; what is even more impressive is that the number of children involved in education was ten times higher in Belgrade than in the „new regions“ (in Belgrade 65.8%, in Toplica county 6.32%). The situation was even worse in Kosovo (incorporated to Serbia together with Macedonia in 1913), with only 51 schools before the Balkan Wars<sup>2</sup>, compared to 1,328 in the rest of Serbia. Therefore, traditional divisions to the developed North and the underdeveloped South became obvious also in Serbia, with the Serbian „South“ encompassing the parts of the Ottoman Empire which were less developed and their incorporation into the new (nation) state was too short to enable balancing of the existing discrepancies.

### SERBIA IN THE 19<sup>th</sup> CENTURY

YEAR	AREA	GROWTH	INHABITANTS	GROWTH
1833	37,000 km		700,000	
1878	48,303 km	1/3	1,665,000	2.37
1910	48,303	/	2,911,701	4.15
1913	87,800 km	2.37	cca 4,500,000	6.42

Apart from the imbalance in development, the discontinuity was obvious as well. In the century when Serbia was emerging and could join the world of modern states only through Europeanization, it experienced seven wars and several popular rebellions, seven rulers who almost all came to the throne through radical changes, persecutions, assassination and the changes of dynasties and political elites, including changes of foreign political priorities.

The economic development of Serbia depended on the general progress. It was disturbed not only by political circumstances, crises, wars and the late obtaining of independence, but also by the structure of the society itself. In the early 19<sup>th</sup> century, by liberation and distribution of land to peasants, Serbia in this segment belonged to rather modern European countries, as it was building an egalitarian society of free citizens; however, this advantage was later lost because a small plot of land in fact became the brake to modernization. It suppressed the development of technologically modern and cost-effective agriculture, it did not bring about any significant accumulation of capital or increase in exports, it kept labour force in villages, etc. Therefore, modern economic branches, particularly industry, developed much slower, and at the moment of obtaining the independence in

2 S. Čanović, *Srpske škole na Kosovu u XIX veku* (Priština, 1976), p. 265.



1878, Serbia's level of development was that of pre-industrial societies; it had several military-technical companies, one brickyard, two sawmills, two breweries and several steam mills.<sup>3</sup> After 1878, Serbia joined the European economic developments with more strength, at first by building railways and developing river traffic, which resulted in increased foreign trade, and later on by passing the laws promoting development of industry; these started to show effects in the early 20<sup>th</sup> century. Already in 1900, a quarter of population worked outside agriculture, in crafts, traffic and public services, there were about 500 industrial plants; however, the problems of insufficient financial capital, high birth rate and small land plots remained, reflecting the rural structure of the society.

The social structure was another problem, particularly because of the immigration of 'new' population from the underdeveloped parts of the neighbouring monarchies. This brought about a decline not only in the economic sense, but also in the level of literacy, lifestyle, production structure, and the possibilities for horizontal and vertical stratification of population. The new population had an archaic social structure, including a patriarchal family, which built a family-type economy resistant to modernization. Consequently, the development of Serbia was interrupted not only by political but also by demographic and structural discontinuities. The weak social differentiation was reflected in the majority being composed of free peasants and the minority of a thin layer of state, bureaucratic-military elite and insufficiently strong middle class. It was still a pre-modern society in which the majority of population lived in villages. While the number of citizens of Serbia increased six times over a century, the urban population only doubled. It accounted for 6.1% of population in 1834 and 14.1% in 1900, which meant that only about 350,000 inhabitants lived in the cities<sup>4</sup>. The educated middle class, including those in free occupations (medical doctors, engineers, lawyers), together with professors and high civil servants, made up nearly 12,000 of this number.<sup>5</sup> The figure itself shows how small was the number of potential bearers of social changes, including the essential changes, such as democratization, development of economy, particularly industry, science and culture, and therefore the inclusion into the group of modern states.

Exactly these components were decisive in the emergence of a modern Serbia. Overcoming of underdevelopment was only possible with educated people,

3 Marie-Janine Calic, *Socialgeschichte Serbiens, 1815-1941. Die aufhaltsame Fortschritt während der Industrialisierung* (München: R. Oldenburg Verlag, 1994), p.163

4 Holm Sundhaussen, *Historische Statistik Serbiens 1834-1914. Mit europäischen Vergleichsdaten* (München: R. Oldenburg, 1989), p. 99.

5 See Lj. Trgovčević, "Srpska inteligencija u XIX veku - zapadni i istočni uticaji", in *Evropa i Srbi* (Beograd, 1996), pp. 261-273; Lj. Trgovčević, "La formazione dell'élite nazionale in Serbia, 1830-1914", in S. Burzanovic, M. Dogo, F. L. Grassi, M. Ivanov, V. Kechriotis, B. Mitrovic, D. Rodogno, L. Trgovcevic, *Schegge d'impero, pezzi d'Europa. Balcani e Turchia fra continuità e mutamento, 1804-1923, a cura di Marco Dogo* (Gorizia: Libreria Editrice Goriziana, 2006), pp. 101-120.

i.e. urban population, as city was the space where modern economy and social institutions were developing. At the beginning, Serbia had neither of these. At the moment of its liberation, the country had no educational or cultural institutions, while political institutions were only emerging. The start was from scratch and there was a long way ahead to the creation of urban population (first by education and employment), accompanied by institutions of civil society. They started to emerge only after 1830 when the Ottoman authorities issued a “firman” allowing Serbs to establish schools, hospitals and printing facilities, thus setting the bases for independent cultural development.

The need for educated people called for the establishment of educational institutions and by the end of the century, all educational levels were founded – from preschool institutions, elementary and high schools, to University. Despite this gradual development of education, Serbia remained among the countries with the highest illiteracy in Europe until the beginning of the 20<sup>th</sup> century; in 1900, only 17% of citizens were literate. The Law on Education which stipulated compulsory education for all children of both sexes was passed at the very beginning of 1883; this was at the same time as similar laws were adopted in other European countries, but the law was more modern than the society itself and therefore could not be entirely implemented. Not only were there no economic conditions, but there were even no awareness of each and every citizen about the necessity of knowledge both for personal and collective prosperity. Moreover, at the turn of the century, Serbia had the youngest population in Europe; in 1900, as much as 54% of its population was younger than 19, whereas the percentage of those obliged to go to school (aged between 5 and 14) was 26%. How much this actually burdened the process of education and disabled all children to attend school is also shown by the fact that in 1900, 6,871 small school buildings would be required to include all the pupils, while there were only 1,101. Besides, there was a demand for 12,057 teachers, which was six times more than the number of teachers actually employed in Serbia at that time.<sup>6</sup>

## From High School to University

A century long way to the establishment of a University corresponded to the developmental one: obsolete societies neither had the need nor the strength for their establishment. The modern university, established in the early 19<sup>th</sup> century, was a new form of centuries old institutions understood as communities of those participating in obtaining and expanding of knowledge, which at that time faced a triple task: to educate, raise and to develop the science. This marked

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<sup>6</sup> Village schools prevailed, with 93 pupils in average. If city schools were to be built, in which at the time were 700 pupils in average, 913 buildings would have been required. See Lj. Trgovčević, “Obrazovanje kao činilac modernizacije Srbije u XIX veku (Analitička skica)”, in *Srbija u modernizacionim procesima XX. veka* (Beograd, 1994), pp. 217-232.



the beginning of another revolution, which some would call a 'scientific', others an 'intellectual', the third a 'technical-technological' revolution, or simply the revolution of knowledge.

The first school in the new Serbian state was the High School established already during the First Serbian Uprising in autumn 1808. It was intended for those who would „lead the country“ and therefore its curriculum contained a little bit of everything, from elementary knowledge appropriate for elementary school to the courses which formed an integral part of university education. As the only enrolment requirement was that a candidate knew how to read, write and calculate, the School could not reach the level corresponding to its name, except as an idea, particularly because it functioned for only three years, with interruptions.<sup>7</sup> After the break-up of the uprising it was never renewed, nor did the coming two decades see an establishment of similar schools; this was partly due to the legal status of Serbia and partly due to the attitude towards education of those who governed it. It was only after 1833 that the new state became aware that development of the state is not possible without educated people. Thus, almost simultaneously with the establishment of elementary school, attempts were made to build a college which would provide the state with the urgently needed clerks for establishment and functioning of public institutions.

The Lyceum established in 1838 in the city of Kragujevac (moved to Belgrade in 1841) marked the beginning of higher education; it was a college with two separate departments: law and philosophy. As it emerged from a part of the local “gymnasium”, it did not differ from it at the very beginning, although it was assigned a special task to educate all kinds of clerks. In the first two years, the courses were general-educational, since 1840 the 1<sup>st</sup> year was introduced at the Department of Law and since 1843 the 2<sup>nd</sup> year as well, whereby it increasingly gained the structure appropriate to a specialized college. Since 1853 they were joined by the Natural-Technical Department, as a core of the subsequent Technical Faculty. The work of the Lyceum was legally regulated by the first Serbian law on schooling of 1844, which stipulated that the first two years were studied at the Department of Philosophy and the last two years at the Department of Law. The first professors were educated Serbs from the Habsburg Monarchy; later on, the first Serbian state scholars who returned from their studies at the leading European universities were immediately appointed professors. They brought new experiences of modern world schools, new courses were introduced and contemporary scientific knowledge and textbooks started to be used, so that the school began to grow and gradually exceeded the form of a lyceum. With the reforms of 1853 and a special law, the Lyceum started to change, and by the creation of own teaching and scientific human resources and development of elementary scientific research, it started to improve its quality. It naturally had to surpass the general level, as differentiation of schooling began simultaneously,

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<sup>7</sup> In 2008, the University of Belgrade took the date of establishment of this uprising's High School as the year of its foundation, which this author disagrees with.



being one of the first conditions for professionalization of society. Around the end of the 1840s, the School of Engineering was opened, then the Artillery and the Crafts School in Kragujevac, to be followed by real professional career schools. This showed that conditions were met for more extensive qualitative changes which were at first oriented toward clearer profiling of certain professions and their gathering within departments. Gradually, various chairs were developed, departments separated, new courses introduced and professors matured, so that in 1863 the Lyceum became a High School with three separate faculties: Philosophy, Technical and Law.

Already by its character, the High School got a university form, not only due to the existence of separate faculties, but also because it was emphasized upon its establishment that it was a scientific institution for higher and professional education. This profoundly changed its character, as it did not only educate the urgently needed clerks, but, in compliance with the European standards, introduced science as a basis of its existence and as an integral part of the education process. This was certainly thanks to its professors whose experiences from foreign universities helped strengthen the school as a scientific institution; the state, from its part, was meeting the demands to expand science by educating people for introduction of new scientific disciplines and chairs. For example, in October 1884, the Academic Council asked for education abroad for as many as 31 experts for various scientific fields necessary for further development of certain faculties; it stated the need for future lecturers for courses in history of philosophy, general philosophy, medieval history, hydro engineering, civil engineering (for land roads and railroads), with the requirement being corroborated by the attitude of “permanent lecturing of science at the High School in order to avoid the High School to again fall into a sad condition to which it had fallen before”.<sup>8</sup> Almost every year the Academic Council selected several best students and sent them to foreign universities in order to prepare them to develop the scientific branches not existing in Belgrade and raise the High School to the university rank. By the reforms of 1896/7, the Faculties got professional departments and university organization. Thus, the Faculty of Philosophy had the following departments: 1. Linguistic-Literature, 2. History-Geography, 3. Mathematics-Physics, 4. Science and Chemistry. The Technical Faculty was divided into three departments: 1. Civil Engineering, 2. Architecture, 3. Mechanical Engineering, while the Faculty of Law was divided into Judicial and Political-Economic departments. Strengthening of the High School created the possibility for educating the elite in the country as well, and it bore fruit. During the four decades of existence, many separate sciences were developed

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8 The Archive of Serbia, Ministry of Education, 1884, 185: the Rector's letter to the Minister of Education dated October 27/November 8, 1884. More in Lj. Trgovčević, *Planirana elita. O studentima iz Srbije na evropskim univerzitetima u 19. veku* [The Planned Elite: Students from Serbia at European Universities in the 19<sup>th</sup> Century] (Beograd, 2003). Hereafter Lj. Trgovčević, *Planirana elita*.

therein, followed by establishment of chairs, seminars and departments with accompanying necessary laboratories and libraries. At the beginning of the century, for example, the Faculty of Philosophy encompassed the Institute of Geography, Seminar of Mathematics, Seminar of French Language, Seminar of Serbian Language, Laboratory for Chemistry, Botanic Garden, Zoological Institute, Laboratory for Public Hygiene, Laboratory of Meteorology and Astronomy (with 9 measuring posts in the countryside), etc.

At the same time, the question about its transformation to the university was raised repeatedly, and even some of its benefactors contributed funds for the establishment of "Serbian university in Belgrade";<sup>9</sup> however, wise people of that time, of European knowledge and experience and appropriate responsibility towards the country and its people, knew that a mere change of the name and a new organization were not sufficient for a high school to become a university. The university was not established before an optimum number of scientists gathered in Belgrade, when laboratories and libraries were equipped at least modestly and when experts were educated for all scientific fields of the curricula. In early February 1905, all these conditions were met and the National Assembly adopted the Law which came into force on 12 March. The three faculties continued to exist, while the Faculties of Theology and Medicine were foreseen to be opened. In accordance with high requirements of university education, the first full professors were appointed from the rank of those having an enviable scientific career, results and awards measured by European standards. The opening of the University of Belgrade on 15 October 1905 concluded the century of Serbian history marked by the establishment and development of the state and thus completed the process of building national institutions characteristic for modern societies. Thus Serbia became ready for modern times and challenges personified in the advantage of those who know and who nurture knowledge. Like the majority of modern universities, it was created by a state decree, however with the role of the state being reduced to its financing and financial control, as only in this manner the main requirement was met – the academic freedom.

## Education and Professionalization

Young higher educational institutions of the Serbian state were at a rudimental level in comparison to those in developed countries. A couple of hundreds of students who every year enrolled in the High School were much less than the percentage of those who at the same time studied in developed countries; in

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<sup>9</sup> *Zadužbine i fondovi Beogradskog univerziteta*. (Belgrade, 1940), p. 315. More in Lj. Trgovčević, "Dobrotvori Beogradskom univerzitetu", in *Dobrotvori Beogradskom univerzitetu* (Beograd: Katalog izložbe, 2005), pp. 15-39.



Great Britain and Germany about 1.2% of the generation studied<sup>10</sup> at the end of the 19<sup>th</sup> century, while in Serbia this percentage was about 0.25%.<sup>11</sup> Furthermore, a student boom which occurred in developed Europe in the 1870s, with an accelerated increase in the number of those enrolling in universities and higher schools, was not notable in Serbia. Such a trend was only perceived in Serbia when the High School was transformed to the University; this can be interpreted both by the fact that studying was facilitated by the existence of a higher educational institution in an immediate surroundings, and by the fact that modernization and professionalization were accelerating.

### The number of students at the High School and the University<sup>12</sup>

YEAR	1870/1	1874/5	1886/7	1889/90	1903	1905	1907	1913
TOTAL	229	185	231	484	465	778	1022	1500

When Serbia began to build its state, it was a country of peasants with almost no literate people. As building of public institutions was a priority, the majority of those educated both in the country and abroad got a job in public service. The position of a clerk was the fastest way of social promotion and transition from the lower, peasant, to higher social groups. Already after a few semesters at the Lyceum or High School, many young Serbs became sufficiently „competent“ to get employment in public administration. Public service promised stable employment, social reputation and certain security, and since the need for clerks was permanent, the largest number of those educated both in the country and abroad searched for a job within public institutions. Law was a more or less attractive profession everywhere, as children from old social layers (bureaucracy) were interested in it, aiming at preserving influence and power, but it also attracted those who still needed social promotion (peasantry, craftsmen). Therefore, it is not unusual that the Faculty of Law was the most popular both at the High School and later at the University. If we compare these trends with the ones in developed countries, it is obvious that in Europe legal science was the most popular profession in the early phase of establishment of a modern state; however since the second half of the 19<sup>th</sup> century, more and more students oriented towards different departments of faculties of philosophy, i.e. rather

10 K. H. Jaraus, „Higher Education and Social Change: Some Comparative Perspectives“, in Konrad H. Jaraus (ed.), *The Transformation of Higher Learning 1860-1930: Expansion, Diversification, Social Opening and Professionalization in England, Germany, Russia and the United States* (Stuttgart: Klett-Cotta, 1983), p. 16.

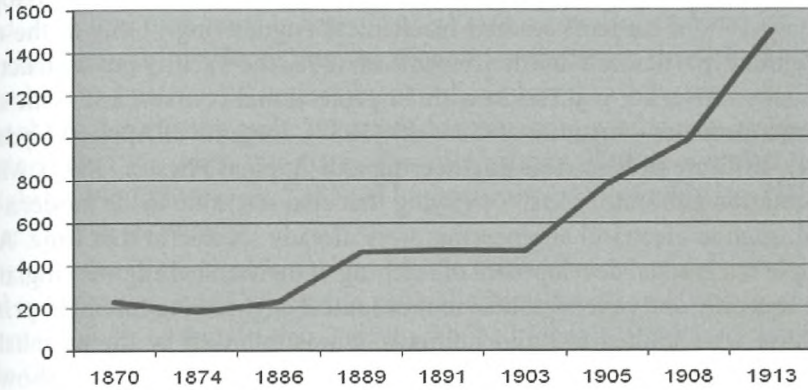
11 Data derived on the basis of statistics of 1900 by taking into account the age group from 20 to 24. If women are excluded from this group, whose number was neglectable in the world as well, that percentage would increase to about 0.5%.

12 The archive of the High School and the University sustained significant damage in both World Wars, so that the data for some school years are missing.



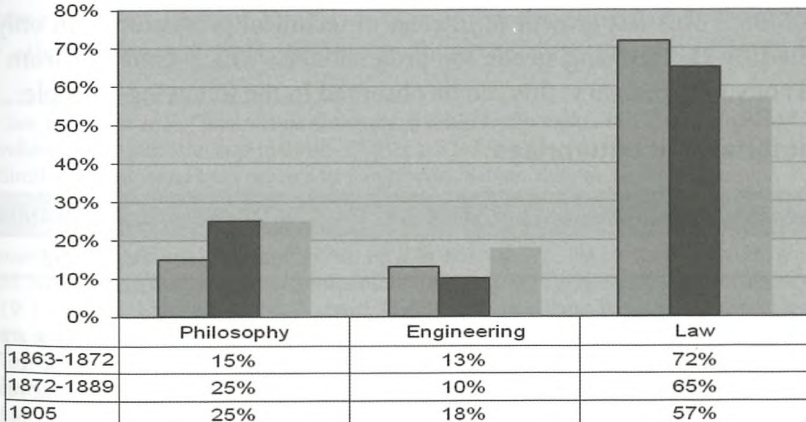
towards professions than general-type schools, as legal and socio-economic sciences (Kameralien) were thought to be. For example, in the second half of the 19<sup>th</sup> century, 20% of students in Germany studied law, while the percentage in Serbia was between 57% and 72%. It is obvious that the number of future lawyers in Serbia decreased as well, but at a much slower pace than in the countries where modernization was completed.

STUDENTS AT HIGH SCHOOL AND UNIVERSITY



At the same time, the number of those considering schooling to be the entry ticket to public service showed that the society itself still did not have a demand for experts of other profiles. Health, culture, economy were still in the emerging phase, while the primitive accumulation of capital had not yet reached the level which would include experts; primitive economy still relied upon craftsmen and hastily trained cadres.

DISTRIBUTION OF STUDENTS AT HIGH SCHOOL AND UNIVERSITY



The correlation between the development of school and the demands of a society is visible on the example of the Technical Faculty. After its establishment, its curriculum contained as many as one third of general courses (12 professional and 6 general), mostly from the field of civil engineering. Therefore, the Technical Faculty was the only institution educating civil engineers and architects until the end of the 19<sup>th</sup> century; it was necessary to build roads, bridges, railroads, i.e. to „Europeanize“ the cities by building modern buildings that would replace Ottoman-style boroughs. This is confirmed by the data that the majority of students chose the Civil Engineering Department, which was the only one developed at all (only 16% of students studied mechanical engineering). Only at the end of the century, particularly by the reforms of 1896, the Faculty got a structure of a modern university institution with 52 professional courses, and with several separate institutes - Institute of Geodesy (1887), Institute of Applied Hydraulics (1894), Institute of Electrical Engineering and Applied Physics (1898), Material Examination Laboratory, etc. – showing that also scientific fields modern in the world, such as electrical engineering, were already studied at that time. A good example is a gradual development of teaching of mechanical engineering; in 1873 there was only one general course in mechanical engineering intended primarily for those who studied to build railroads; it was followed by the establishment of a separate department for mechanical engineers in 1897. This shows that not only the Faculty strengthened its human resources, but that demand for the mentioned professions appeared, i.e. that Serbia was under the impetus of industrialization. This is obvious also from the example of young Serbs who went abroad to study technical sciences at the turn of the centuries. Thus, only 26% of all Serbs educated at the Technical Faculty (Technische Hochschule) in Berlin were educated in the 19<sup>th</sup> century, whereas three quarters of students chose this school in early 20<sup>th</sup> century.<sup>13</sup> The enrolment rate at other foreign technical universities was similar. This is further confirmed by the data that the number of technical science graduates from the High School until 1904 was almost the same to the number of those who enrolled in that Faculty (130:131) in the school year 1905/06.<sup>14</sup> This fast growth of interest in technical professions can only be interpreted by the growing needs for professionals, which emerged from the demands of young industry; this can be observed in the following example:

### New factories and enterprises

Before 1858	1858-68	1869-78	1879-1898	1899-1908
6	5	8	61	92

13 Lj. Trgovčević, “Srpski inženjeri na studijama u inostranstvu do 1918”, in *Putevi srpskog inženjerstva tokom XIX veka*, Naučni skupovi LXXIII (Beograd: SANU, 1994), pp. 148-167.

14 “The list of graduates”, in M. Nikolova, *Razvoj Tehničkog fakulteta Velike škole u Beogradu od 1863. do 1905*, *Flogiston*, 2 (Beograd, 1996), pp. 59 – 84.



## Professional Emancipation of Women

The right to education and right to work were, besides political rights, the foundations of emancipation of women in the 19<sup>th</sup> century. Like in other countries, also in Serbia exercising of these rights was slow. In Serbia, education of girls was for the first time regulated by the law of 1844, however stipulating separate schools for them; if there were none, girls could not go to school together with boys after the age of ten. Because of the prohibition of coeducation, the first female school was only established in 1845 and by 1858 18 female schools were opened. A radical turn came in early 1883 when a compulsory 6-year education for all children was introduced, but the economic conditions, the lack of schools and teachers and patriarchal environment only slightly raised the number of girls in school benches. In the early 20<sup>th</sup> century, inclusiveness of female children in education was 17%, while the share of women among illiterate population was still high: in 1900 there were 7.36% of literate women, i.e. double less than the number of illiterate men.<sup>15</sup>

Higher education of girls started by the establishment of a Female High School in Belgrade in 1863.<sup>16</sup> Beside general education, its task was to prepare teachers for work in female elementary schools.<sup>17</sup> Female Teachers School and Female Commercial School were also opened after 1900, while the first female "gymnasium" was opened only in 1905. Since 1879, girls could attend male "gymnasiums" and take the graduation examination privately, but only upon an explicit approval which was difficult to obtain as the "gymnasium" directors reluctantly admitted girls among their pupils.<sup>18</sup>

Female students were an exception at the faculties of the High School. It was neither forbidden nor approved as at the time when regulations were passed the possibility that girls would be interested in higher education was not considered. This loophole was used by Draga Ljočić, who enrolled as a part-time student in the Faculty of Philosophy in 1871; however after one semester she left to Zurich where she obtained the title of medical doctor in 1879. She thus became the first Serbian female doctor and among the first ones in Europe.<sup>19</sup> For other interested girls, studies in Belgrade were mainly precluded by the

15 See Lj. Trgovčević, "Školovanje devojaka u Srbiji u 19. veku", in *Obrazovanje kod Srba kroz vekove*, (Beograd: Istorijski institut, 2003), pp. 81-88.

16 Similar schools were later opened in Kragujevac, Šabac, Valjevo, Kruševac.

17 L. Perović, "Modernost i patrijarhalnost kroz prizmu državnih ženskih institucija: Viša ženska škola (1863-1913)", in *Srbija u modernizacionim procesima 19. i 20. veka, 2. Položaj žene kao merilo modernizacije* (Beograd, 1998), pp. 141-161

18 M. Nikolova, "Školovanje ženske mladeži u Srbiji do 1914", *Srbija u modernizacionim procesima 19. i 20. veka, 2*, pp. 73-82; N. Trnavac, "Indiferentnost prema školovanju ženske dece u Srbiji 19. veka", *Srbija u modernizacionim procesima 19. i 20. veka, 2*, pp. 55-72.

19 The first female medical doctor in Europe was N. Suslova in 1866, the first French in 1875, the first Spaniard in 1882, Ester Bonomi became a doctor in Genova almost two decades after D. Ljočić, while Bulgarian Ana Panova managed that eight years later (1887)...

mentioned regulation of compulsory secondary school final examination as an eligibility requirement for enrolling in the university; so they also went to study abroad.<sup>20</sup> Some of more persistent girls yet managed to overcome the imposed obstacles and in 1891 Leposava Bošković and Kruna Dragojlović graduated from the Faculty of Philosophy in Belgrade. The number of women at studies was gradually increasing, so that in 1900 the first female architect Jelisaveta Načić graduated from the Technical Faculty, followed by others. By the establishment of the University of Belgrade in 1905, girls became legally entitled to the full studies; already in the first school year they made up 12.6% of the enrolled students. There was 74 of them at the Faculty of Philosophy making up one third of all enrolled students, 11 at the Technical Faculty and only two at Faculty of Law. The percentage of enrolled female students was higher than in majority of other countries, except in Switzerland and Bulgaria, particularly if taking into account that university education of girls had not yet been allowed at the entire territory of the German Empire.<sup>21</sup>

An outstanding position in this generation of pioneers among university-educated women in Belgrade belongs to Jelisaveta Načić who in 1900 graduated from architecture and became the first female architect in Serbia. This profession was very rare among women worldwide. Girls first started to study this subject in the USA, which recorded about ten female architects until 1890, whereas the first European female architect was a Finish Signe Hornborg, who graduated in 1890. A year before, enrolment was allowed to girls in Brno, but without a right to diploma, while the first French girl enrolled in this department at the Ecole des Beaux-Arts in 1898 and graduated in 1902, the first Bulgarian obtained this title by graduation in Berlin in 1917, the first Romanian in 1919, etc.<sup>22</sup> Thus, Jelisaveta Načić was one of the first European woman-architects, but also among the first who won the right to the profession; at that time, higher education did not imply an equal right to employment, particularly in public services, which

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20 Until 1914, 32 Serbian girls studied in Zurich, five in Lausanne and about ten in Geneva. According to the data collected so far, until 1914 ten girls from Serbia studied at the University of Berlin, two in Munich (where Pravda Markovic got her PhD in Philosophy in July 1910), three in Halle, two in Vienna, one in each of Jena, Giessen and Tübingen. According to incomplete data, there were about twenty students from Serbia in France, same as in Russia. Particularly interesting is that the first woman who graduated from the Technical Faculty in Darmstadt was Jovanka Bončić, who enrolled architecture in autumn 1909 and in July 1913 became the first woman to obtain the diploma of this school (Technische Hochschule Darmstadt, Archiv, 25-2a: J. Boncic). Since 1882 Serbian state awarded scholarships for foreign universities to 46 girls, i.e. 5% of all its state scholarship beneficiers. See Lj. Trgovčević, "O studentkinjama iz Srbije na stranim univerzitetima do 1914. godine", in *Srbija u modernizacionim procesima XX veka, knj. II: Položaj žene kao merilo modernizacije* (Beograd, 1998), 83-101; Lj. Trgovčević, *Planirana elita*, pp.193-206.

21 See Lj. Trgovčević, »Blgarki i Srbkine v universitete v Šveicariji i Germaniji do 1914.godina«, in E. Tačeva, I. Nedin (eds.), *Tja na Balkanite* (Blagoevgrad, 2001), pp. 483-493.

22 K. Daskalova, R. Gavrilova (eds.), *Granici na gradzanstvoto: Evropeyskite zeni mezdu tradiziyta i modernnostta* (Sofia, 2001), p. 286.



were prevailingly intended for men. Upon graduation, Miss Načić managed to get an employment and become the Architect of the Municipality of Belgrade in 1902. Thus she not only entered a „male preserve”, but also received a professional recognition by designing some masterpieces of Serbian architecture, for example the “Kralj Petar” School in Belgrade (1906) and the Aleksandar Nevski Church. Soon after, Angelina Nešić graduated from architecture, Vidosava Milovanović and others followed. The law studies in Serbia, as elsewhere in Europe, were connected to the prohibition for women to work in advocacy and the high state service positions were conditioned by completed military service. At the University of Belgrade, the first who won this ‘male’ profession was Smilja Jovanović, who graduated from the Faculty of Law in 1914.

Their professional emancipation unfolded at a slower pace than that of men. Female teachers and professors were the first to obtain the right to employment in public service, however they could not become appointed public servants; this denied them the permanency of their employment and a right to pension, and they had to observe the state distribution of places of service. They remained in an unfavourable position regarding salaries, which were lower than those of men of the same title; the position was even more difficult for female teachers, who were committed to marry teachers as they could lose their job if choosing another spouse. The first Serbian female doctors from foreign universities had to pass an examination before the commission of the Serbian Ministry of Health, they were allowed to private practice only in 1881 and to work in public hospitals in 1890. Although in 1900 there was one fifth of women among public servants (2,124 employed female teachers, telegraph operators, midwives, etc.),<sup>23</sup> only teachers had higher education obtained at the Female High School while less than one hundred had university education.<sup>24</sup>

However, the examples of first female professionals in Serbia destroy a stereotypic opinion that marriage and family disturbed their professional career in the society of that time. The sample until 1914 (17 female doctors and 24 female architects and engineers) shows that 63% of these women were married while 22% of them left the job after marriage.<sup>25</sup> It is interesting that the majority of these women kept their maiden name and added the husband’s family name (e.g. Dr Draga Ljočić-Milošević, Mileva Andrijević-Stoiljković, Jovanka Bončić-Katerinić, Dr Slavka Mihailović-Klisić, Dr Zorka Brkić-Popović, Jelisaveta Načić-Lukai), but some of them, despite having successful marriages and children, remained known per their maiden names for the whole life, for example Dr

23 D. Stojanović, “Žene “u smislu razumevanja našeg naroda”. Slučaj žena stručnjaka u Srbiji 1903-1912”, in *Srbija u modernizacionim procesima XX veka*, No. 2, p. 241.

24 In percentage, it is not a small number in comparison to the number of citizens and literacy of women in Serbia, if compared with the data that in 1914 in France there were only 400-600 women with diploma (baccalaureat). See A. Goldmann, *Le Donne entrato in scena. Dalle suffragette alle femministe* (Firenze, 1996), p. 18.

25 See Lj. Trgovčević, *Planirana elita*, p. 209.

Draga Ljočić and an architect Jelisaveta Načić.<sup>26</sup> They are important also as role models, as daughters of some of them also managed to graduate from faculties before the World War One and started their professional careers (Dr Radmila Milošević, daughter of Dr D. Ljočić or Dr Jelica Nešković, daughter of Dr Marija Prita-Vučetić.). This can also be interpreted by the emancipation of their partners who were of liberal or socialist attitudes, but it also raises a question whether the patriarchal model of Serbian society was as rigid as it is usually interpreted.

## State, Education, Modernization

Throughout the 19<sup>th</sup> century, the Serbian state was making efforts to be constituted as a modern state, to gain independence and freedom, complete its territory, build public institutions and provide better economic and cultural development for its citizens. As a result of a set of circumstances, something was successful while something was not, i.e. it has not been developing at a desired pace. Serbian political elites knew that the creation of own educated class was a condition for the progress of the state; however it cannot be said that they continually endured in that effort and followed the examples of some other states. Although all educational institutions were built, it cannot be claimed that education was the state's priority. The rate of budgetary expenditure for education was lower than in some other underdeveloped societies. This can be explained by the political circumstances and economic development, but it remains striking that the number of students in comparison to the number of citizens in Serbia was lower than in the neighbouring Balkan states. On the other hand, Serbia had an appropriate state program for education of its cadre abroad; but this number gradually decreased in relation to overall population; for example, in 1884 one such scholarship came to each 29,715 citizens of Serbia, in 1905 to 37,191 and in 1910 to 83,191 citizens. This certainly resulted from the fact that the urgently needed number of educated people had already been reached, as well as by that the High School and the University could already form necessary professionals (this is further shown by the decrease in the number of students going abroad after opening of the University of Belgrade in 1905), but the main reason was that economic development of the country did not follow one of the biggest natural birth rates in Europe and Serbia's leading position in terms of the number of school-age children. The development of faculties improved the possibility for quality education in the country, as the reforms starting in 1873 transformed

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26 These results are interesting if compared with Anglo-Saxon examples we know. Bonnie Smith shows in her analysis of professional female historians at universities that they generally were not married nor had partners' support and that family life disturbed their career. She records that Lilian Knowles was the only female historian who had professional career and a child (B. G. Smith, *The Gender of History: Men, Women, and historical Practice* (Harvard, 2000), p. 190).



them from general-educational institutions, where almost a same number of professional and general courses had been taught, to quality high schools.<sup>27</sup>

This was certainly thanks to the number and quality of professors. Almost all teachers were educated at top class European universities. In the country of poor scientific tradition, they could apply the most recent knowledge acquired during studies, while the absence of competition and 'authority' granted freedom to their work. Therefore they could introduce some of the most modern theories of that time into the teaching process and to venture in opening new research fields. The increase in the number of professors<sup>28</sup> is closely linked to the development of sciences which were an integral part of teaching process, as other scientific institutions beyond the High School and subsequent university almost did not exist.<sup>29</sup> Another obvious fact is a large fluctuation of professors who very often replaced chairs with political positions. That trend, existing since the beginning of higher education in Serbia, can be attributed to a higher reputation of political functions compared to the faculty ones, but also by the needs of the state which selected the best educated people from among the high school or university teachers. There were almost no professors who did not spend at least some time on the position of a minister, an envoy abroad, a president of a party or a prime minister. On the contrary, it cannot be said that their political engagement significantly contributed to the development of education. Except Stojan Novaković, who started a set of reforms in education, there are only a few of those who focused on education during their political careers. The already mentioned low rate of budgetary expenditure for education is the best example. On the other hand, their impact in the field of modernization was significant. Professors wrote almost all modern laws of the new state, organized public administration and independent judiciary. Their colleagues from the Technical Faculty designed the first modern buildings in Belgrade and in Serbia, worked on routing of roads and building of railroads. Professors of the Faculty of Philosophy carried out geological, geographic, ethnographic, philological, botanical, zoological, archaeological and other research on Serbia and thus obtained a corpus of knowledge about the space they belonged to; they introduced standards of food and water control, carried out chemical experiments, contributed to metallurgy and mining, etc.<sup>30</sup>

27 Out of 21 courses at the Faculty of Law in 1863, eleven were professional, at the Faculty of Philosophy 10 professional and 7 general, and at the Technical Faculty 12 professional and 6 general (S. Bojović, *200 godina Beogradskog univerziteta 1808-2008: Istorija institucije* (Beograd, 2008), p. 54). Reforms of 1873 reduced the number of general courses at the faculties to 5.

28 In 1873 there were 19 professors, 1878-28, 1890-35, 1903- 67.

29 Apart from Serbian Learned Society, later Serbian Royal Academy, some scientific research was carried out within the State Chemical Laboratory (since 1859).

30 Let us mention only the following: Vladimir Karić, *Srbija: opis zemlje, naroda i države* (Belgrade, 1887); Jovan Žujović, *Geologija Srbije*, I-II (Belgrade, 1893-1990); Josif Pančić, *Flora Kneževine Srbije* (Belgrade, 1874); Jovan Cvijić, *La péninsule balkanique. Géographie humaine* (Paris, 1918)...One of examples of professors' contribution is Đorđe Stanojević who built the

Another effect of education was the change of social structure. Middle class and parts of different elite groups gradually emerged from a prevalingly peasant society. The social promotion enabled inclusion into the elite, while many, in order to join it, studied in parallel with work or enjoyed some of the scholarships awarded by certain funds and student associations. However, about one fifth of the High School students did not manage to graduate, sometimes due to a frequent student disease of that time – tuberculosis. In the first decade of its existence – until 1873, the High School had 380 graduates, while until 1888 it is estimated that about 900 students got their diplomas.<sup>31</sup> Already in the second half of the century, academically educated citizens started to gain prevalence at free labour market and replace their hastily trained predecessors.

As a result of the decades of development, Serbia managed to create thin elite in early 20<sup>th</sup> century, which by its structure resembled the European one, however in numbers it still lagged far behind.<sup>32</sup> Although small, it was important as it yielded all modernization improvements, from political to cultural. In the political sphere, students created the core which accepted and developed liberal, democratic and national ideas, particularly through organizations, such as “United Serbian Youth” (modelled by *La Giovine Italia*). Although they mostly did not follow their youth aspirations in later years, the vast number of politicians transferred a part of their experience from studies to the public sphere. In the national aspect, the presence of students from various areas inhabited by Serbs and other Southern Slavs was important (Kosovo, Macedonia, Bosnia, Montenegro, as well as Bulgaria, from where they came before the establishment of the state, as well as due to political reasons, particularly in the time of closure of the University of Sofia in 1907). The idea of the unification of Southern Slavs, strong in early 20<sup>th</sup> century and demonstrated on the congresses of Yugoslav student youth and in student associations, was developed and accepted among them.

The contribution of domestic education to the development of public, political and general culture is undisputable. In the case of Serbia, the question remains of how strong its contribution was to the development of economic or industrial class, considering the overall growth of the country. The undisputable correlation between the number of students and economic-cultural progress is more obvious in the emergence of educated public administration than of modern professions

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first hydroelectric power station in Uzice which gave alternating current 19 years after the one built on the Niagara Falls.

31 Correct number cannot be determined due to the large damage of funds.

32 In 1900, Serbia had about 50,000 administration staff (out of which 12,947 clerks, customs officials), 45,200 traders, 1,032 priests, monks and church officials, 1,937 military officers and non-commissioned officers, 2,486 teachers, 588 High School professors, gymnasium and college teachers, 292 medical doctors, 81 pharmacists, 295 lawyers, 100 engineers, 107 artists, actors etc. (*Popis stanovništva u Kraljevini Srbiji 31.decembra 1900.godine, Drugi deo. Sa tri kartografa i tri dijagrama* (Beograd, 1905), p. CCV).



of industrial society. On the other hand, a rational and secular knowledge offered by the University of Belgrade broadened the fields of freedom much more than the number of its students. By their manner of thinking, working, behaving, they served as role models, which all contributed to the creation of new cultural values different from the inherited ones. The multiple correlations between higher education and social changes, although not always possible to be exactly documented, remain unquestionable in the example of Serbia.

