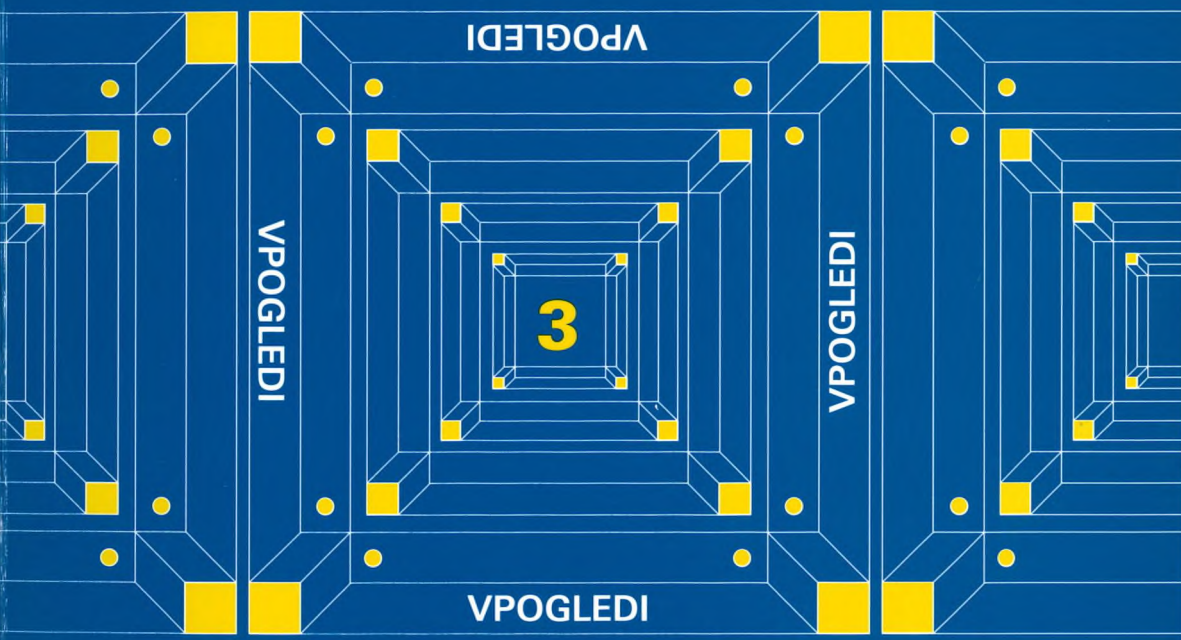
THE ROLE OF EDUCATION AND UNIVERSITIES IN MODERNIZATION PROCESSES IN CENTRAL AND SOUTH - EASTERN EUROPEAN COUNTRIES IN 19TH AND 20TH CENTURY



The Role of Education and Universities in Modernization Processes in Central and South-Eastern European Counties in 19th and 20th Century

Edited by

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Ljubljana 2011

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Editors: Peter Vodopivec and Aleš Gabrič

Publishers: Inštitut za novejšo zgodovino, Ljubljana
Zentrüm für Soziale Innovation Wien — Avstrijski znanstveni institut v Ljubljani

Layout and typesetting: Barbara Bogataj Kokalj

Printed by: Medium d.o.o.

Print run: 400

CIP - Kataložni zapis o publikaciji
Narodna in univerzitetna knjižnica, Ljubljana

378.4:316.42(4)«18/19«(082)
94(4)«18/19«(082)

The ROLE of Education and Universities in Modernization Processes in Central and South-Eastern European Countries in 19th and 20th Century / edited by Peter Vodopivec and Aleš Gabrič. - Ljubljana : Inštitut za novejšo zgodovino : Avstrijski znanstveni institut ; Wien : Zentrum für Soziale Innovation, 2011. - (Zbirka Vpogledi ; 3)

ISBN 978-961-6386-31-9
1. Vodopivec, Peter
258141440

Inštitut za novejšo zgodovino

ASO LJUBLJANA
AUSTRIAN SCIENCE AND RESEARCH LIAISON OFFICE LJUBLJANA
www.aso.zsi.at

CONTENTS

Peter Vodopivec and Aleš Gabrič

Introduction

For some time, the researchers studying various aspects of social and economic development in the 19th and 20th century have been pointing at the crucial role of education, schooling system and high-education institutions in the processes of social and economic modernisation and political and social democratisation. These processes could not take place without the spread of literacy, professionalization and communication using written language and media; and neither without the formation of educated and business elites, which became an indispensable dynamic factor of social, economic and cultural changes. In particular in the countries and nations with only weak urban middle-class population and slow development of non-agrarian economy (small trades and industry), educational institutions and universities were one of the most important factors of social mobility and transformation, which paved the way for the emergence of urbanized middle-class population and modern social and economic flows. In the 19th century, a large part of higher-education and university students were schooled outside their home environment; until 1918 students in the Habsburg monarchy were mostly schooled at the university centres within the monarchy, whereas the students from the South-Eastern European countries attended also Western European universities. Afterwards, they all conveyed their knowledge and economic, social and political development views to the local and wider national environment. With gradual establishing of higher-education and university institutions in the environments and countries where they had not existed before, new scientific and university centres started to emerge in Central and South-Eastern Europe in the second half of the 19th century; they accelerated the formation of educated elites and encouraged their modernisation efforts.

This publication includes the contributions presented at the symposium "The Role of Education and Universities in Modernization and Europeanization Processes in Central and South-Eastern European Countries in the 19th and 20th Century" organised by the Institute of Contemporary History and the Austrian Science and Research Liaison Office in Ljubljana on 26 and 27 November 2009. The main purpose of the symposium was to present and compare the latest research on this subject and encourage discussions on how modernity was perceived,

understood and put into effect by the educated elites in the Central European and South Eastern European countries with in many aspects different, but also comparable social, cultural and national historical experiences. The diversity of approaches proposed by the authors of the papers clearly reveals the complexity of this subject, which could be studied from many various perspectives and in various manners.

The organisation of the symposium and publishing of the collection of papers was made possible by the financial support of the Austrian Science and Research Liaison Office in Ljubljana and its director Dr. Miroslav Polzer, Slovenian Research Agency and the Institute of Contemporary History in Ljubljana.

Miroslav Polzer

Universities and Societal Change in Central and South-Eastern European Countries – Yesterday – Today – Tomorrow

The International Symposium "The Role of Education and Universities in Modernization and Europeanization Processes in Central and South-Eastern European Countries in 18th and 20th Century" organized by Institute of Contemporary History (INZ) Ljubljana in cooperation with Austrian Science and Research Liaison Office (ASO) Ljubljana has been an important scientific meeting which shed light on many interesting links and intellectual foundations of present day societies in Central and Southeastern Europe connected with the development of educational systems and universities in the region over the last one and a half centuries.

Prof. Peter Vodopivec succeeded to invite many outstanding historians from the region to look in a systemic way into the role of education and especially higher education as the central element of structured societal transformation and universities as important places where visions of desirable futures (although often not accommodating interests of all segments of society) are being developed.

Austrian Science and Research Liaison Office (ASO) Ljubljana has been delighted to be partner of this event and publication initiative as we share the conviction that knowledge generation, dissemination and application are at the heart of any socio-economic development and that educational systems that respond to changing societal needs and universities that function as some kind of windows to the world are needed today more than ever before and not only in Southeast Europe but all over the world.

Publication of the proceedings of the symposium comes at a time when Austrian Federal Ministry of Science and Research decided to close ASO Ljubljana after more than 21 years of work in the field of promotion of international scientific cooperation in the triangle Austria-Slovenia and Southeast European countries.

I would therefore like to take this opportunity to express my sincere gratitude to prof. Peter Vodopivec and the many outstanding scientists in Slovenia, Austria

and SEE countries for inspiring cooperation with ASO Ljubljana in the past 21 years.

At the same time I can announce that "International Association for the Advancement of Innovative Approaches to Global Challenges (IAAI)" is planning to establish a network of 'Global Challenges centers' in all Southeast European countries which will serve as points of crystallization for knowledge based sustainable development and which will build on the networks and expertise of ASO Ljubljana.

Thus the cooperation of Austria, Slovenia and Southeast European countries on the subject of 'universities and societal change' can be expected to find its continuation in a different institutional setting, soon.

I wish the proceedings many interested readers and look forward to continuation of fruitful cooperation under new institutional settings.

Diana Mishkova

Education and Universities in the Modernization and Europeanization Processes in South-Eastern Europe: Some Reflections on Interpretation and Methodology

The role of education and universities in the modernization processes in the Central and South-Eastern Europe has often been taken for granted and self-evident. The precedence of this association can be approached from two different angles: from the point of view of the state which created the institutional framework and set the direction for the operation of the educational establishment, and from the point of view of the university 'graduates' who saw their function either as (high) state employees and social transformers 'from above' or, alternatively, as critics of the 'reckless' Europeanization and state-led modernization. What was common to these different viewpoints was their Western referentiality: in their crux was the question about the transfer and re-conceptualization of modernity and Europeanness, which in turn raised the critical issue about 'foreign forms' and 'local substance', hence about authenticity and identity. That applied to both imperial and national frameworks, even though it will be clear that the locus classicus of the education-modernization nexus was the nation-state. In what follows, I will attempt to take stock of these different aspects of the problem with the aim to chart some of what seems to me to be the major intersections between education and modernization as an area of research.

I.

As a top-down transformation meant to trigger emulation of and facilitating 'catching-up' with the 'advanced' Western world, modernization depended heavily on such powerful instruments for social engineering as education. To begin with, the emerging nation-states, following in the footsteps of or in reaction to the policies of the erstwhile modernizing empires, had major stakes in promoting

modern education, educational institutions and legislation for the sake of their proper functioning.[1]

Education was one of the first, if not the very first, modernized social sphere where Western-European standards were adopted and institutionalized. Thus, education and universities themselves were among the first 'modern' and 'European' institutions in Central and South-Eastern Europe. The consistently high number of state-sponsored scholarships in foreign schools and universities prior to the establishment of national universities, and later the priority which the state attributed to the creation of nationalized networks of secondary and high schools *qua* state institution, also bear witness to the key position assigned to education (esp. to higher education) for the cultivation of a 'state-building elite.' It was not just a bureaucratic elite, but one saddled with the task to institutionalize and nationalize sciences, thus providing a proper – that is, 'rational', 'scientific', 'legitimate' – basis for the nationalization and modernization of society.[2]

Closely related to that was the disproportionate role of the (university) educated 'elites' in defining the course of the state-led modernization and the boundaries of the community entitled to it: in "disciplining the people internally, and enforcing the rules and boundaries of the constituent people".[3] This role was played out primarily in two directions.

The first involved a direct political commitment. In Central and South-Eastern Europe, intellectual professionalism entailed – and indeed made sense above all else in terms of – the ability to win over and exert political power and responsibility. This was true not only for relatively egalitarian societies, such as the Serbian and the Bulgarian, but also for those endowed with traditional elites, such as the Romanian and the Greek, where modern higher education served as a vehicle for smooth transition of political power from the hands of the *boyars* or local *tzakia* into those of their (mostly foreign-educated) sons, from whose ranks the incipient national bourgeoisie was basically recruited.[4] Modern political

1 While being perfectly aware of the significant role of education and universities for the modernization of multiethnic empires such as the Habsburg and the Ottoman in the nineteenth and the early twentieth centuries, here I shall focus primarily on the national (and cross-national) contexts as this will allow me to trace with bigger clarity and consistency the above-mentioned aspects of the relationship.

2 During the first two decades following the liberation, almost every second Bulgarian studying abroad received state support under one form or another, and the number of those among them who attended higher schools was 3 times higher than the state-supported secondary or professional students. The situation was comparable to that in post-1830 Serbia. The state thus not only stimulated, it directed and controlled the flow, destination, and disciplinary profile of those entitled to its support.

3 Ronald Suny – Michael Kennedy (eds.), *Intellectuals and the Articulation of the Nation* (Ann Arbor, 1999), p. 2.

4 A Romanian historian Elena Siupur had studied in detail this process of 're-qualifying', via education in Western universities, of the traditional social elite into intellectual elite "as a major vehicle for preserving [its] political power" in the Romanian nineteenth-century context (Elena Siupiur, "Les intellectuels roumains du XIXe siècle et la réorganisation de la classe politique et du système institutionnel", *Revue Roumaine d'Histoire* XXXIV 1995, pp. 1-2, 75-95).

power and government, state and civil service became and for long remained the privileged mainstay of the South-Eastern European intelligentsia. (Its autonomous and critical function vis-à-vis the state, on the other hand, only gradually took place and became more visible after the World War I, but never came to dominate its ethos or employment as a social group.) Thus, both in terms of the place assigned to the educated class in society and in view of the role it came to play, the advent of modernity marked a radical transformation of its previous status and function. To a large extent, Central and South-Eastern European projects of modernity were those of the state-nurtured and state-oriented intelligentsia.

The second direction has everything to do with the double mediating function which South-Eastern European university training and personnel saw as their duty to perform: between the local (popular tradition and identity) and the universal (modernity), and between the authority of Western expertise (think, for example, of the Western contribution to ethno-sciences like Albanology, Turkology, etc.) and the local 'knowledge.'

The intimate connection between the professionalization of sciences and the forging of a modern understanding of the nation and national belonging exemplifies precisely this conceptual and cognitive transfer of modernity through the mediation of education and science. The 'national disciplines' from archaeology and linguistics to anthropology and sociology became "necessary tools of modern social solidarity and citizenship [without which] there could, in a very literal sense, be no nation..."[5] There are many good reasons to argue, together with Anthony Smith, that "[t]he nation can only be imagined through the medium of science." Positivist criticism of romantic nationalism, which came to a head in the second half of the nineteenth and the turn of the twentieth centuries, on the other hand, coincided with the rise of biology, social psychology and phenomenology in the social sciences (Freud, Nietzsche, Bergson) and thence in politics, thus underpinning the crisis of rational liberalism and the beginning of 'post-rational' politics. Biological determinants and naturalistic understanding of all forms of social organization, peoples and states included, were largely the product of these university-nourished counter-Romantic scientific trends. (Their organizational hub was academic and intellectual networks, often gravitating around authoritative scholars and disciplinary paradigms – an illuminating case in point at the time discussed is the Leipzig-based German ethno-psychologist Wilhelm Wundt, whose Balkan disciples formed a numerous cohort of highly influential intellectuals with a conspicuous input in the modernity debates between the two World Wars – which will be discussed further down.) At the hands of the conservative Romanian *Junimists* the critique of the eclectics of romantic science opened the way for an ethno-cultural understanding of the nation; at the hands of democratically-minded intellectuals, such as Bogdan

5 Anthony Smith, *The Ethnic Origins of Nations* (London, 1999), pp. 171-172.

Hasdeu in Romania or Ivan Shishmanov in Bulgaria, the democratization of political life was associated with the rise of what they called "popular sciences" such as ethnography and linguistics. There existed, on top of that, an intense competition among disciplines for control over the symbolic representation of the nation.

This being said, the issue about the relationship between education, intelligentsia and modernization can only be treated diachronically. In the early phases of national consciousness-raising and state-building, the freedom of academics and intellectuals to legislate with impunity on the incipient nation was at its highest. As later on intellectuality was becoming more widely dispersed and mass politics and social nationness were taking root, this freedom was being reduced.[6] But academics and intellectuals remained, nonetheless, as convinced as before of the political value of scholarship.

Finally, the singular notion commonly attached to 'modernity' could be strongly misleading. There were as a matter of fact various competing notions of modernization and Europeanization – different modernities and Europes, that is to say. The examples here are numerous and, arguably, obvious: it is well known that the nineteenth and the twentieth centuries signify a period of intense debates over the nature and purpose of modernization. Any discussion of the role of education and university in the modernization and Europeanization in the Central and South-Eastern European societies ought to be – for that reason – *also* a discussion of the transmission of knowledge and the thematization of sciences in an emphatically transnational key. This would mean to see education and university as steering the cultural transfer between 'core' and 'peripheral' cultures, as crucially partaking in the mechanisms of transmission, exchange and interaction of ideas, paradigms and institutions across national borders, and as being highly instrumental for the local translations and adaptations of intellectual 'imports'.

II.

For all that I consider the processes of transmission, domestication and subversion of notions of modernity and Europeanness – be them political, ideological, economic, or conceptual – via schooling to be of central importance to the theme of this symposium.

The process of cultural negotiation between the nineteenth- and twentieth-century European 'core' and 'peripheries' has been studied from various perspectives. There is a series of works documenting the interaction of a given local tradition with the centre mostly by scholars stemming from the respective East-

6 Ronald Suny - Michael Kennedy, op. cit., pp. 404-405.

Central or South-Eastern European cultures but sometimes also from academic centers of the 'core', who had surveyed the reception of ideas and institutions coming from their respective countries. Many individual cases have already been studied to some extent, the typical research projects being aimed at documenting the itineraries of, say, Romanian or Bulgarian students in Germany in the late-nineteenth century, etc. But we have still not had more synthetic works since the mid-twentieth century phase of the comparativist research, which was marked by a strong sense of cultural superiority on the part of the European 'great cultures' and which commonly described the process of reception in unilinear terms.

With this in mind, what still remains on the agenda can, in the opinion of this author, be summarized in the following few points.

First is the need to expose the inherent ambiguity of the actual intellectual interaction in Europe, where the experience of the distance between the centres and the 'margins' created a fascination but also certain uneasiness and resentment. Much as the West had 'framed' Eastern Europe since the Age of Enlightenment, the 'Other Europe' was creating Western Europe as the 'core' where 'things happened' and 'universalities' were born. The constitution of France or Germany as universal Significant Others, for example, was anything but a single-handed process: as a leading 1848 conspirator and later prime minister of the unified Romanian Principality Dimitrie Brătianu put it, the pilgrims of any race or faith who wanted "to pay homage to the Man in his full grandeur" should be heading for France – "the one sacred land of all." But such myths often coexisted with invectives: the admiration for the universalizing power of a core culture often alternated with resentment over its arrogance, ever insufficient support or *Realpolitik* betrayals of its 'universal' values. More crucially and consequentially: since the last third of the nineteenth century, and especially during the interwar period, the West's critical thought coalesced with a growing frustration on the progressivist comparisons with, and 'importations' of, 'Europeanness', which nurtured self-perceptions of 'belatedness,' 'backwardness,' 'catching-up', to engender strong anti-European and anti-modernist local currents emphasizing the autochthonist singularity, temporality and self-sufficiency of national culture and development.

Modern education and university training in this sense were anything but straightforwardly and unambiguously associated with a Western-type modernization and Europeanization. They are better seen as providing the modern framework of knowledge transfer and interaction which also made possible the articulation and the trans-national validation of autochthonist stances and autarchic policies – either as a form of *ressentiment* or by way of assimilating Western currents which were critical of modernity; or, as most frequently happened to be the case, both. The interwar history of Central and South-Eastern Europe abounds with scholars-cum-politicians (or state functionaries) exemplifying this relationship.

On the other hand, pursuing the 'horizontal' dimensions of the interaction, such as the role of intra-regional mediation and transfer or the mechanisms whereby some of the intellectual and ideological currents became paradigmatic for certain similar cases, could provide us with a more sensitive picture of the multifarious dialogue between European 'cores' and 'peripheries', as well as among the different 'peripheries.' All in all, in mapping external 'influences', we would do better if we avoided a simple (potentially essentialist) 'borrowing' model. Instead, we should try to reveal the strategic way in which 'marginal' thinkers and academic communities were using the ideological and scientific discourse of the more or less 'canonized' West to solve local problems and appease local concerns. The peculiarity of thinking at the margins is, probably, that it consciously seeks resemblance to the 'core', Western theories that legitimize the Central- and Eastern-European scholars as scholars, while trying to use the same theories for purposes not necessarily commensurate with the original ones.

Thirdly, while every national academic tradition had established certain interpretations of the various educational and cultural institutions – German, French, British – which influenced their development, there has not been any attempt to put these pictures together and establish the trans-national influence of certain schools, figures or intellectual milieux from the perspective of an encompassing European intellectual history. For such an agenda, two concepts seem to be of central importance: transfer and networks.

Informing the emphasis on the concept of transfer is an increasing awareness of the need to address the history of political and social modernity and thinking in terms of a continuous dialogue between 'core' and 'peripheral' traditions.[7] Although in differing proportions, what we are confronted with under the headline of conceptual or paradigm transfer has never been a one-way impact (as commonly implied by notions such as 'influence', 'import', 'assimilation') but a circulation of ideas where complex trajectories of interaction and modes of involvement of the 'recipient' culture occupy the centre stage. Thus viewed, the question is not one of how faithfully a 'Western European' practice, school of thought, or institution had been assimilated outside its place of origin and in this way resolving the issue of its 'validity' respectively. The question, the series of questions as a matter of fact, should be about why certain ideas, currents, paradigms etc. became paradigmatic for a variety of structural cases; which were the versions or elements selected for local implementation; what were the expectations pinned on them; with what success; and how should we account for

7 Transfer in this context would concern, e.g.: Professionalization and institutionalization of sciences; Intellectual transfer: schools of thought, paradigms, concepts, scholarly and belles-lettres literature, major protagonists; Institutional transfer, with a special emphasis on state- and education-building institutions; Notions of modern government and society: political transfer; transfer of ideologies, theories, and models; Concepts of Europe and European belonging, of center and periphery, notions of historical regions, etc.

the similarities and the differences in all that. The argument, in other words, calls for bigger attention to the local articulations of a universalist philosophy or a scientific paradigm, which is to say, doing justice to the autonomy of political and cultural values and the timing of cultural transfer but also to social institutions and cultural-political contexts.

This would not relativize, on the other hand, the disparity in radiation and reception between the two ends of the cultural interaction. A number of asymmetries – in vocabulary, conceptual creativity, innovation and authority – constrained the non-Western societies' intellectual autonomy. Paradigms were being imported and then adjusted, sometimes beyond similarity, but always claiming resemblance to the original, thus divesting local cultures of generative and cognitive capability. And yet, if only by evoking the perennial battles over the meaning and purpose of modernization, a great many of which were fought by academics (cum intellectuals or politicians), not infrequently ex cathedra, and almost all of which drew upon the authority of professional knowledge, the cognitive gains of reversing the perspective and seeing Southeast-European academia not as object but as agent of cultural attitudes and policies become obvious.

In this sense, the channels mediating Western academic and intellectual transfer constitute another key aspect. On the one hand, such intermediaries had much to do with the hierarchies among the core cultures, particularly in terms of the institutional models adopted for local implementation. Well-known is the role of the Vojvodina Serbs schooled in the Habsburg lyceums and universities, whose political culture and ideals for good government drew heavily on the 'cameralist' tradition and bureaucratic institutional models, in setting up and staffing the first modern governing institutions in Serbia. The oligarchic "Constitutionalist regime", which they upheld between 1842 and 1868, epitomized these Central European values and models, as did the first liberal constitution of the Serbian Principality of 1869, based largely on the (conservative) Prussian constitution of 1850. Comparable was the role of the Albanians schooled in Southern Italy for the crystallization of the first notions of modern rule among the Albanians in the Empire. The close Bulgarian connections to the Serbian and Romanian nationalists and liberals occured around the universities in Bucharest, Belgrade, and Novi Sad. The Greek schools in Athens and Smyrna, Chios and Andros, as well as the Serbian schools in Belgrade and Novi Sad deserve special mention in this regard. Frequented by representatives of different nationalities, they played a major role in the spread of new ideas and discoveries of the modern age, and especially of French liberalism, throughout the Ottoman Empire.

Such intra-regional channels of transmission, moreover, often had a determining impact on a country's experience with modernity. The framework for the entangled histories of the Greek and the Bulgarian nationalisms in the

first half of the nineteenth century was set by the Greek schools and academies; it was the romantic Central European and Serbian, not the Western, scholarship on Slavic history, languages and literature that defined the parameters of the Bulgarians' modern identity self-projection. And so on...

As for the educational or intellectual networks (or forms of socialization), they acted as a sort of cultural-political *République des Lettres* on a trans-national and trans-regional scale. Those that should specially concern us include: networks built on a shared scholarly paradigm, intellectual authority, or joint schooling; professional networks; personal networks; lobbyist (pressure) groups.

An important feature of all those networks and of the culture they disseminated was their international, although not necessarily consensual, character. Quite often their beginnings can be traced back to seminar courses and institutes in foreign universities, around which widely international student communities took shape. Their members could come from rival nationalist traditions, as was for example the case with the University of Leipzig-based linguist and ethnographer of the Balkans Gustav Weigand's (1860-1931) Institute for Romanian Language (1893), later transformed into an Institute for Balkan languages. Weigand's seminars and his establishment grew into veritable platforms for intraregional transfer: in the Institute for Romanian Language, for example, Bulgarians studied Romanian language and history and vice versa. The "Slavic Academic Society" (1878-1898) was established by students in Leipzig University with the aim to foster "the rapprochement among the Slav students living in Leipzig with the purpose of exploring the life, literature and history of the Slav peoples", while political and social issues were excluded from the discussions.[8] Staying with the German examples, similar was the role played by the universities in Berlin (mainly by virtue of the prominence of Slavic Studies there) and Munich (Byzantine Studies). Back home the political and generally public role of the members of these networks can hardly be exaggerated.[9]

In the earlier, 'nationally-awakening' decades of the nineteenth century, such educational, professional or personal networks of mostly lyceum or university students often evolved into a wide international movement (or pressure group) such as the liberal-romantic "Young Europe" movement ("Young Italy", "Young Czechs", "United Serbian Youth"). The international nature of neither European nationalism nor European liberalism or socialism could be fully understood without considering the huge role of such 'diasporic' webs. Originally based

8 Veliko Jordanov, *Laipzig i bulgarite* [Leipzig and the Bulgarians] (Sofia, 1938), pp. 64-65, 75.

9 Out of 100 Bulgarian students who had attended or graduated from the University of Leipzig between 1879 and 1899, 6 became ministers, 20 university professors, 35-40 high school teachers, directors of secondary schools, or heads of departments and chief inspectors in the Ministry of Education (see Veliko Jordanov, "Znachenieto na Laipzig za stopanskoto i kulturno vuzrazhdane na bulgarite" *[The Importance of Leipzig for the Economic and Cultural Revival of the Bulgarians], Училищен преглед* XL, 1941, p. 306.

on personal contacts and common intellectual socialization, their symbolic magnetism and afterlife, as indicated by the much later "Young Turk" or "Young Bosnia" movements for example, far surpassed the historical moment of their first appearance on the political and ideological scene.

The record of (at least some) professional networks was no less impressive. Paradoxically at first sight, ethnographers and folklorists – those whose 'scientific' findings, and often personal political involvement played a major role in the new states' validation of their national causes – sustained an unusually wide international scholarly network and unusually intensive communication between themselves, especially in the 1890s-1910s. Thus in collecting materials for his ethnographic studies, Ivan D. Shishmanov (1862-1928), a founder of and professor in Sofia University who had also served as a minister of education, relied on and received the support of the leading regional scholars working in this field – Nikolaos Politis (University of Athens), Bogdan P. Hasdeu and Ioan Bianu (University of Bucharest), Milan Milicević (Serbian Academy of Sciences) – even if his interpretation did not necessarily agree with theirs.

The non-territorial and trans-national character of such networks needs to be stressed especially as national historiographic canons, predictably, tend to downplay it. More importantly still, taking full stock of such territorially floating networks will make it possible to reveal the multi-layered scholarly, disciplinary and intellectual interactions but also transfers of 'modernity agendas' across national or even regional academic communities in their historical dynamism. It would allow us to highlight the competition and interaction of different universalist philosophies and modernities 'exported' from the West to the European periphery. The intellectual and academic connections to France or Germany, for example, often entailed rival political models and institutional arrangements – e.g. republicanism vs. monarchism, social revolution vs. organic evolution, liberalism vs. socialism – as well as competing alternative modernities. Such a perspective, in other words, could help us re-conceptualise the shifting divisions in Europe in the modern era by way of focusing on the historically emerging networks of intellectual and political interaction and on the conditions (institutional, structural, cultural-political) enabling cultural transfer.

Iskra Iveljić

The Role of Education in Modernizing Croatia in the 2nd Half of the 19th Century

Historians are usually cautious scientists, careful not to simplify, sceptical of too many generalizations and attentive to render the losers' a well as the winners' versions. Following this path I would like to hint at a dilemma to which I cannot offer an unambiguous answer. Yet, I deem it quite important that a historian stays well-aware of the intricacies and entanglements of the modernization theory.

When we discuss the modernization issue in the context of European history, we are putting forward the Western European model/s and influences. Is it not a way to project our present in the past? In this way, the search for pioneers of modernization turns into the search for glorious ancestors and thus into inventing our own tradition, to quote the famous phrase of E. J. Hobsbawm. We are often keen on identifying our modern predecessors as early in the history as possible and visualize modernization as a firm axis that connects our past, present and future. This inevitably leads to simplification and reduction of the past reality because we tend to identify and stress merely the processes, events or personalities that bear significance to our own time, making the rest of the past a foreign country.[1] We revisit and repossess the past, only to subordinate it to our present. Self-aggrandizement is inherent to that method and it often manifests itself as overstressing of the importance of one's own nation.[2] A good example is the interpretation of the Habsburg Monarchy, which was after 1918 often written from the point of view of a particular nation or state. In other words, to deal with my own nation and state, Croatian historiography sees Croatian history as a centre, thus turning the Monarchy into its mere frame. Recently, the Habsburg

1 See David Lowenthal, *The Past is a Foreign Country* (London: Cambridge University Press, 1985).

2 Literature on this topic is abundant. I point to a rather personal article by Ferenc Glatz, "Staat-Nation-Geschichtsschreibung", in E. Busek.-G. Stourzh (eds.), *Nationale Vielfalt und gemeinsames Erbe in Mitteleuropa* (Munich-Vienna, 1990), pp. 129-137.

legacy has been partly reinterpreted[3] and thematized in the light of the broadened European Union[4].

Current political situation also plays a big role. The recent enlargement of the EU has led to westernization of history, visible in the tendency to represent the European history and identity as homogenous and Western Europe as the nucleus of the whole European civilization. Many authors have warned against this tendency. Wolfgang Schmale asserts that historians have constructed common European structural elements even for the periods in which no common European consciousness existed.[5] Andreas Kappeler pleads for a greater apprehension of the importance of Eastern Europe, and Gerald Stourzh ironically comments that Europe does have its East[6], just to mention some. A number of other authors share these views.[7]

Still, this inevitable contamination of the past through elements of the present does not mean that we should refrain from constructing bridges between the past and the present.

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Efforts of the reform elites during the Enlightenment to use education as an instrument of progress are well known. Their general goals, such as dissemination of knowledge and literacy were meant to change their recipients inwardly, helping them to become better people and proper members of society. However, educational reforms launched in the Habsburg Monarchy during enlightened

3 See Gary Cohen, "Nationalist Politics and the Dynamics of State and Civil Society in the Habsburg Monarchy 1867-1914", *Central European History*, Vol. 40, 2007; David Godsey, *Aristocratic Redoubt. The Austro-Hungarian Foreign Office on the Eve of the First World War* (Indiana: Purdue University Press/West Laffayette, 1999). Others saw the fin de siècle crises of identities as more intense in central European cities like Vienna, or even as a hint of postmodern era. Jacques Le Rider, *Das Ende der Illusion. Die Wiener Moderne und die Krisen der Identität* [German translation of *Modernité viennoise et crises d'identité*] (Vienna, 1990); Jean-Francois Lyotard, *Das postmoderne Wissen* [German translation of *La condition postmoderne*] (Vienna, 1986).

4 Emil Brix, "Kakaniens Beitrag zur Erweiterung der Europäischen Union", in Catherine Bosshart-Pfluger et al. (eds.), *Nation und Nationalismus in Europa. Kulturelle Konstruktion von Identitäten. Festschrift für Urs Altermatt*, (Stuttgart-Vienna, 2002), pp. 783-800.

5 Wolfgang Schmale, *Geschichte Europas* (Vienna-Köln-Weimar, 2001), pp. 13-15.

6 Andreas Kappeler, "Die Bedeutung der Geschichte Osteuropas für ein gesamteuropäisches Geschichtsverständnis", in Gerald Stourzh (ed.), *Annäherungen an eine europäische Geschichtsschreibung* (Vienna, 2002), pp. 43-55. Gerald Stourzh, "Statt eines Vorworts: Europa, aber wo liegt es?", in Gerald Stourzh (ed.), *Annäherungen an eine europäische Geschichtsschreibung* (Vienna, 2002).

7 Norman Davies, *Europe - A History., 2. ed.* (London, 1997); Dan Diner, *Das Jahrhundert verstehen. Eine universalhistorische Deutung* (Munich, 1999); E. J. Hobsbawm, "Die merkwurdige Geschichte Europas", in *Wieviel Geschichte braucht die Zukunft?*, German translation (Munich-Vienna: Carl Hanser Verlag, 1998); Emil Brix, "Was bringt der Osten dem Westen? Der kulturell-zivilisatorische Beitrag Mittel- und Osteuropas für Europa", in *Enzyklopädie des Europäischen Ostens* (Klagenfort-Vienna-Ljubljana-Tuzla-Sarajevo, 2001), pp. 45-53.

absolutism did not encompass Croatia (and Hungary) to the same extent as Austrian lands, so their practical results were rather meagre. Nevertheless, the impetus towards secularization and the attitude that all children were entitled to at least primary schooling regardless of their social, ethnic and confessional status as well as gender, was a novelty. Of course, the same kind of education was not on hand for all. According to *Ratio educationum* of 1777, there were several categories of primary schools, the ones in the country lasted only one year and provided pupils solely with basic skills of learning, writing, counting and religious education. Most of the children did not attend school at all. The major problems were poverty, lack of school buildings, educated teachers and textbooks. Another impediment was the traditional understanding of education, which did not allow introduction of new teaching methods and was still based upon the primarily disciplinary role. In the country schools children of various ages were all gathered in a single class, they did not have textbooks and learning aids, and were mostly learning by heart, because little or no attention at all was paid to explanatory methods. Since discipline and obedience were important goals, physical punishment was regular. No wonder that few educated teachers avoided country schools, where priests, retired soldiers or any available literate person took their place.[8] The situation in the town schools was better, but still far from satisfactory.

The school practice in Croatia was in discrepancy with the evolution of contemporary pedagogical ideas. The Enlightenment changed the attitude towards children, and in the Habsburg Monarchy, the influence of German enlightened philanthropists was felt. They promoted education in accordance with the principles of humanity and children's nature. Children should not be suffocated through excess authority, teaching process must conform to children's age and it must have an amusing side in order to stimulate children's interest and curiosity. The result was also seen in children's literature.[9] The reform ideas that promoted the new image of middle-class family and its values were subject to an inherent criticism of nobility. Since noblemen and priests were then still major social forces, the reform ideas were not very welcome in the late 18th century Croatia.

Even though new school-orders were introduced at the beginning of 19th century (1806 *Ratio educationis* for Hungary), major reform impetus took

8 Syntehtical overview in Jaroslav Šidak, "Jedno stoljeće u razvoju hrvatskog školstva (1773-1874)", *Zbornik za historiju školstva i prosvjete,* 9, 1975, pp. 37-48. Basic documents: Antun Cuvaj, *Građa za povijest školstva Kraljevina Hrvatske i Slavonije od najstarijih vremena do danas*, vol. VII-X (Zagreb, 1911-1913).

9 One of the most popular books was *Robinson der Jüngere* by Johann Heinrich Campe, and the journal *Kinderfreund* by Christian Felix Weisse. Even though a Kajkavian translation of Campe's book was published in Croatia (Anton Vranić, *Mlaissi Robinzon* (Zagreb, 1796)) the translation of Weisse's journal (Juraj Dijanić, *Horvatzki detce priatel* (Zagreb, 1796)) never came out of print.

place during the national revival («preporod») in the 1830s and 1840s. The role of education in the land where over 90% of population were peasants was tremendously important. Furthermore, heterogeneity of Croatian lands, especially the non-existence of the language standard, turned education into primary means to construct the modern nation. In the late 1830s and 1840s, a lot was debated in the Croatian Sabor, among the priests and individual followers of the «preporod» as to how to improve the school system. These debates were often stirred by those in Hungary, resulting in *Systema scholarum elementarium* (1845) which made elementary schooling obligatory and prolonged the duration of country schools.

Major secondary schools were six-years "gymnasiums" in Zagreb, Varaždin, Rijeka, Osijek, Karlovac and Požega, four of which belonged to Franciscans, who often took over the former Jesuit institutions. "Gymnasiums" were elite schools with classical and humanistic curriculum, which provided their pupils rather with general knowledge than skills needed to exercise practical jobs. During the reign of Joseph II, German language was introduced, but after his death Latin regained its status. Yet, another language was being imposed since 1791 – namely Hungarian, which in 1827 became an obligatory subject. Already in the late 18th century, the majority of secondary school pupils came from the middle class, and about a quarter of them from peasantry. Noblemen still prevailed in Zagreb and Varaždin. Apart from secondary schools, there were a couple of vocational schools, such as nautical school in Rijeka, but in general there were too few of them.

The highest school was the Zagreb Academy, originally a Jesuit institution. Though it was granted privileges held by universities in 1669, higher Jesuit authorities hindered the bestowal of academic titles and honours, probably in an attempt to prevent competition to their other academies in the Monarchy. The Academy was secularized during the reign of Maria Theresa, becoming *Regia scientiarium academia*, offering courses in philosophy, law and theology. The social structure of the Academy students during the «preporod» shows the prevalence of middle-class over nobility. For example, in 1791-1830, 49% of 2191 philosophy students were of middle-class and 33% of peasant origin, but in the period 1826-30, the percentage of the first category amounted to 62%. Despite these facts one should not jump to conclusions of a rush oncoming of middle-class society, since 63% of philosophy students chose to become priests.[10] From

10 Jaroslav Šidak, "Regia Scientiarium Academia", in *Spomenica u povodu proslave 300. godišnjice Sveučilišta u Zagrebu,* Vol. 1 (Zagreb, 1969), p. 66; Lelja Dobronić, *Zagrebačka akademija/ Academia zagrabiensis: visokoškolski studiji u Zagrebu 1633.-1874.* (Zagreb, 2004). It is interesting that the social structure of Caranthanian students at the Vienna university in 1804-1849 shows that sons of peasants made up 29%. Alojz Cindrič, "Vpliv dunajske univerze na oblikovanje slovenskega izobraženstva: statistična slika študentov s Kranjske na dunajski univerzi med leti 1804 in 1917 – študijske smeri, krajevni in socialni izvor", in Peter Vodopivec (ed.), *Slovenci v Evropi (O nekaterih vidikih slovenske povezanosti s sosedi in Evropo)* (Ljubljana, 2002), pp. 17-34. Hereafter Alojz Cindrič, "Vpliv dunajske univerze".

1830-1848, the Academy had 184 to 213 students yearly, mostly of philosophy (147 to 173), whereas the number of law students varied from 35 to 48.

Therefore the stage was set for a major education reform, which was articulated by the Sabor committee in 1849, upon the ideas of Austrians Franz Exner and Herman Bonitz. The reform suggested changes on all levels – primary, secondary, and high. Its goal was to spur the establishment of more primary schools, with Croatian as the teaching language (in accordance with the conclusion of the Croatian Sabor of 1847), with educated teachers, and to enrich curriculum with new subjects. Furthermore, new types of secondary schools were foreseen, such as real and civic schools («realke» and «građanske škole»), as well as various vocational schools (nautical, commercial, agronomic, etc.). The foundation of a modern university in Zagreb was also proposed. Even though the 1849 reform was not implemented due to the break-down of the 1848 movement in the whole Monarchy, Croatian liberal intelligentsia had by 1848/49 developed clear notions of educational reforms that should be undertaken, as well as the necessity of giving them a national character. So, the course was set on modernization and national integration.

In the 1850s, the neo-absolutistic regime laid the foundations of modern primary school system. The regime seriously insisted on children attending schools, but even then only a third of them did so.[11] The secondary schools were reformed into eight-year schools, the course on philosophy being taken from the Academy to the Zagreb "gymnasium". Since the course of theology was already moved from the Academy during the reign of Joseph II, in the 1850s the Academy offered solely the law course. In 1854 German was introduced as the teaching language. The neo-absolutistic reforms were articulated in the Vienna centre ("modernization from above") and were coupled with a new wave of Germanization, which made the regime unpopular. Only later, in the 1870s, did ban Ivan Mažuranić admit that there was an important reform side to neo-absolutism.

The proper educational take-off in Croatia took place only in the 1860s and 1870s. It was visible in the founding of the Teachers' Association ("Hrvatski književno-pedagoški zbor"), periodicals, children's books and journals in Croatian[12], development of pedagogical science[13], founding of a modern

11 Mirjana Gross, *Počeci moderne Hrvatske* (Zagreb, 1985).

12 The first Croatian children's book was *Mali tobolac* (1850) compiled by Ivan Filipović, a liberal teacher who also founded the first journal *Bosiljak* (1864). Until 1918 there were 16 journals for children and youth. It is interesting that too few of them were published in Slavonia. Towards the end of the century, specialized journals appeared, e. g. for young merchants and artisans. Štefka Batinić, *Zabava i pouka dobroj djeci i mladeži* (Zagreb, 2004), p. 16.
First picture-books in Croatian were published in 1880s, but with illustrations of foreign authors. Again, among illustrators there were Germans, Czechs, even Americans but no Hungarians. Štefka Batinić-Berislav Majhut, *Od slikovnjaka do Vragobe* (Zagreb, 2001), p. 67.

13 In 1876 Franjo Marković began with lectures on pedagogy at the Faculty of Philosophy. Đuro Arnold and Stjepan Basariček further developed this field, the latter one being the first Croatian theoretician.

University in Zagreb and a major elementary-school reform launched in 1874 by the government of the ban Ivan Mažuranić.

Teachers' Association founded in 1871 became the forum of liberal teachers, who stubbornly lobbied for a substantial school reform. The reform could not take place in the 1860s, since during the major part of that decade the elites of the Monarchy were preoccupied with settling of the state structure. Even when this had been decided upon in 1867, the immediate postdualistic regime in Croatia controlled by the Hungarian government was not keen on modernization of Croatia but its pacification. Only after a compromise had been reached between the National Liberal Party ("Narodna liberalna stranka") and the Hungarian government in 1873, the new ban Mažuranić was able to articulate reforms limited to Croatian autonomous affairs, one of them being education.

Mažuranić's reform of primary education was a great step towards secularization, even though it was in this respect more moderate than its model - the Austrian law of 1869 (*Reichsschulgesetz*). This moderateness is understandable given the immense influence of the Catholic Church in Croatia. Another major difference was that primary schooling in Croatia lasted not eight but five years. The 1874 reform also meant that teachers became civil servants, which was an improvement in their material and social status. Yet, primary beneficiaries were peasant children and girls, who now attended school in greater percentage than before. In one respect the Mažuranić reform was even a small step ahead of its model – namely in the compulsory status of gymnastics classes not just for boys but for girls as well. Moreover, women teachers got the right to equal salary as their men colleagues! Unfortunately, during ban Karoly Khuen Héderváry (1883-1903) wages of women teachers were again lower, and they were banned to a kind of celibacy since only unmarried women could be teachers. In the Sabor, the Mažuranić reform was strongly attacked by its Serbian members (even though the reform allowed the Cyrillic script for Serbian pupils) who denied the Croatian Sabor the right to pass bills that would encompass Serbian schools and pupils as well.[14] The issue at stake was Serbian autonomy in Croatia. This clearly shows the national role of education.

The effects of the Mažuranić reform were seen in the 1880s. In 1869, 85% of population was illiterate, in 1880, 73% of men and 83% of women were illiterate, but in 1884/5, 75% of eligible children attended school, compared to 55% in 1871/2. Of course, the percentages for towns were different, as 94% of eligible children in Zagreb attended elementary school in 1884. The latter fact was satisfactory regarding Croatian conditions, but in Austrian lands as early as in 1860 almost all children attended school except in Carniola (71.9 %) and a Styrian district Bruck (86.5%).[15]

14 Mirjana Gross, "Zakon o osnovnim školama 1874. i srpsko pravoslavno školstvo", in *Zbornik radova o povijesti i kulturi srpskog naroda u SR Hrvatskoj*, Vol. 1 (Zagreb, 1988), pp. 75-118.

15 Helmut Engelbrecht, *Geschichte des österreichischen Bildungswesens. Erziehung und Unterricht auf dem Boden Österreichs, Von 1848 bis zum Ende der Monarchie, Vol. 4* (Vienna, 1984), p. 117.

The educational reforms changed the everyday life of teachers and pupils through new schoolbooks, methods, looser disciplinary measures and more teaching means. It is interesting that in all the above-mentioned aspects, the liberal reforms were very often conveyed through the Central European filter. In the 1870s, schoolbooks were still translated from German, the most influential pedagogical theoretician was J. Friedrich Herbart and empiricist Friedrich Dittes, the director of the Viennese *Pedagogium* who exerted huge influence on liberal teachers in Croatia. Dittes took part in the general assembly of the Teachers' Association in 1871, he was personally acquainted with prominent teachers, and he became *persona non grata* for the opponents of secularization (including liberal priests, such as Franjo Rački and J.J. Strossmayer). Yet, Croatian followers of Dittes did not implement his criticism towards national issue. At this point I would like to stress that we often speak of the Western European models and ideas without taking into consideration the modifications they went through in practice. Our goals should be to identify models, explain their modifications and their carriers and analyse their reception and results.

Not just ideas were imported from the Western and Central Europe, even the teaching means and the school banks were of Austrian, German, Czech and Slovene[16] origin until late in the 19th century.[17] Needless to say, a number of teachers came from these lands to Croatia as well, exerting influence not only on their pupils, but on colleagues as well.[18] The Czech teachers were especially influential and prominent Croatian teachers contributed to the Prague journal *Slavjanski pedagog.* One should immediately notice the absence of Hungarian influences at least in civil Croatia. The Croatian School Museum founded at the beginning of the 20th century did not have a single teaching means from Hungary![19] The reason was clearly of political and national origin.

Even the history textbooks were largely translated from German in the 1870s, but novelty was that they were done by renowned historians, such as Vjekoslav Klaić. Klaić did not mechanically translate, he added information on Croatian history, but he also provided better supplementary material, such as illustrations, chronologies or lists of kings.[20] Klaić and other history teachers also began writing

16 Popular author of geographical atlantes was Blaž Kozenn.

17 Iskra Iveljić, "Modernisierung Kroatiens in der zweiten Hälfte des 19. Jahrhunderts. Europäische Vorbilder und kroatische Besonderheiten", in C. Zach-F. Solomon et al. (eds.) *Vorbild „Europa" und die Modernisierung im 19. und 20. Jahrhundert* (München, 2009).

18 Probably the most known Slovenian teacher was Janez Trdina, Czechs were Vjenceslav Mařik and his wife, Anton Truhelka, Stjepan Novotný – the founder of the first pedagogical journal *Napredak* ("Progress") in 1859, and Marija Jambrišak - one of the most prominent women teachers. She studied at the Viennese *Pedagogium* upon personal invitation of F. Dittes who was impressed by her liberal ideas exposed at the general assembly of Teachers' Association in 1871.

19 *Hrvatski školski muzej: Njegov postanak i uređenje* (Zagreb, 1902); Elizabeta Serdar (ed.), *Hrvatski školski muzej 1901.-2001* (Zagreb, 2001).

20 Klaić did so in translating E. Hannak's , *Lehrbuch der Geschichte des Altertums für die unteren Klassen der Mittelschulen* (Vienna, 1870); V. Klaić, *Poviest staroga vieka za niže razrede srednjih učilišta (*Zagreb, 1877).

Croatian history schoolbooks,[21] this being largely due to the founding of the modern Croatian historiography by Ivan Kukuljević and Franjo Rački.[22] Klaić, who studied in Vienna, used methods and ideas of Western authors, which he combined with that of Slavic ones in order to put Croatian history in the broader European context. According to Klaić, Croats, as a branch of populous and important Slavic peoples, deserved a prominent place among European nations. Of course, Klaić was not the only one to promote such European discourse, it was widely spread at least since 1848. Liberal reforms and national integration were seen as a part of (Western) European civilization. The past was interpreted as the time of serfdom, slavery, of medieval darkness in which only bats could prosper, while the present was a brief transition to an era of liberty, progress and humanity. Since 1848 the liberals were repeating on and on that Croatia had to make up for its not keeping abreast with European progress. (This discourse is still present nowadays). The conservatives of all colours, especially priests, were sceptical of progress and tried to stress the importance of authentic and autochthonous Croatian position and heritage. Yet, the dividing line between Croatian liberals and conservatives was often blurred and vague. Liberal priests, such as Franjo Rački and Josip Juraj Strossmayer (who fought consistently for the founding of the University and Academy) sided with the conservatives in the battle against secularization, which they saw as a result of intrigues and antichristian conspiracy of Jews and masons.[23] On the other hand, priests accepted the liberal Mažuranić reform *via facti*, which meant that there would be no «Kulturkampf» in Croatia. The Zagreb archbishop finally called upon priests to do so.

Even among liberals there were big differences – the National Liberal Party was keen on following the path of the Western European reforms, whereas «pravaši» (followers of the Party of Right i.e. party of Croatian State Right) insisted on the importance of establishing an independent Croatia, reforms being the secondary question. The third stream was pro-Hungarian, and because of its political and national orientation it was ostracized from the grand national narrative for a long time. Yet, among the so called unionists (adherents of the unconditional union with Hungary) there were also liberals, but they thought that major reforms should be carried out in cooperation with Hungary.

The liberal and conservative fronts were also vague in the attitude towards children. Since the abstract notion of children is socially constructed, children's

21 Ivan Hoić, Franjo (František) Kořinek, Ljudevit Tomšić, Stjepan Srkulj. See Charles Jelavich, *South Slav Nationalisms. Textbooks and Yugoslav Union before 1914* (Ohio: State Un. Press, 1990); Croatian edition: *Južnoslavenski nacionalizmi,*(Zagreb, 1992).

22 There is a certain dilemma among historians as to who is the founding father of modern history writing. While stressing the important impetus provided by Kukuljević, one has to underline that Rački was the first to apply the modern method of critical approach to historical sources. During his stay in Rome he got acquainted with the methods applied in editing *Monumenta Germaniae historica*. Mirjana Gross, *Franjo Rački. Vijek i djelovanje,* (Zagreb, 2004), p. 506.

23 Letter of F. Rački to J.J. Strossmayer 11th April and 28th August 1874. Ferdo Šišić (ed.), *Korespondencija Rački-Strossmayer*, Vol. 1 (Zagreb, 1928).

characters indicate socially preferable and acceptable conduct.[24] Croatian children's literature remained very tendentious and moralizing until the turn of the century. This is not surprising since it was mostly written by teachers, who promoted the conception of a universal didactical publication, aimed at various age groups of children and youth as well as adults, since in the country the young were more literate than their parents. It is important to stress that this conception was shared by liberal and conservative teachers.[25] Both of them were keen on protecting innocent and helpless children, seen as physically and psychically frail creatures, who therefore had to rely on their parents, teachers or other authorities to remain on the right side and develop their proper identity. The image of children in Croatian literature was accordingly stereotypic, turning children's characters into paradigms of proper and moral life. At the turn of the century, critical voices were raised. One of them belonged to Jelica Belović-Bernadzikowska who promptly reacted to Heinrich Wolgast's *Das Elend unserer Jugendliteratur* (1896), and pleaded against didactical tendentiousness.[26] From the beginning of the 20th century, children's literature made steps in this direction, its authors were writers (Ivana Brlić-Mažuranić, Jagoda Truhelka, Marija Horvat, Vladimir Nazor) eager to produce an artistically relevant book and not to be crusaders of pedagogical conservatism. In their works, children's characters partake in articulation of their identities, enjoy certain autonomy and have a central position in the narrative discourse.[27]

At the turn of the century, Croatian education was more differentiated particularly on the secondary level, with more "real" ("realke") and vocational schools, but also with two more "gymnasiums" (in Senj and Bjelovar). The number of pupils in secondary schools was growing since the 1860s. In 1857, there were 988 pupils in "gymnasiums" and 200 in "real" schools, in 1880, the numbers were 2129 and 269, respectively. The confessional structure shows under-representation of Orthodox pupils (in 1877, around 10%) overrepresentation of Catholic, Greek-Orthodox and Jewish pupils. The letter amounted to 21% in real schools in 1877![28] The social structure shows that in 1870s most pupils came from ranks of merchants and artisans (40% in "gymnasiums", 56% in "real" schools), intellectual professions and peasantry, the latter being represented among the pupils of "gymnasiums" with 20%.

24 Karin Lesnik-Oberstein, *Children's Literature. Criticism and the Fictional Child* (Oxford, 1994), pp. 9-10.

25 One can compare articles in *Smilje* the journal of liberal teachers of the Teachers' Association with *Bršljan* (1873), edited by the group of conservative teachers gathered around *Školski prijatelj.*

26 Jelica Belović-Bernadzikowska, "Naša omladinska literatura, *Školski vjesnik,* Vol. IV., No., 7-8, 1897, pp. 9, 17.

27 Dubravka Zima, "Djetinjstvo i stereotipi: Slika djeteta u hrvatskome dječjem romanu 20. stoljeća", in D. Oraić-Tolić et al. (eds.), *Kulturni stereotipi* (Zagreb, 2006), p. 255.

28 Agneza Szabo, "Društvena struktura polaznika srednjih škola u civilnoj Hrvatskoj i Slavoniji 1850-1881", *Historijski zbornik,* Vol. 61, 1988, pp. 155-180.

In the 1890s, a new hybrid type of secondary school was introduced – the "real gymnasium" ("realna gimnazija"), which combined the general curriculum with practical goals of "real" schools. The case of a "real gymnasium" is an interesting one. In Croatia they were often unjustly praised as Croatian specialty, but on the contrary to Austrian lands, where this type of schools did not turn to be successful, in Croatia it survived in the form of public schools.

The Zagreb University, founded in 1874, was entangled between the unfulfilled ambition to be the academic centre of South Slavs and a more narrow one, that of a national *alma mater*. Strossmayer and Rački envisioned the University as an academic mediator between the Western and South-Eastern Europe. The same mission in the field of science was assigned to the Yugoslav Academy of Arts and Sciences. The Yugoslav mission of the Zagreb University turned out to be an illusion, since the majority of students came from Croatia and Slavonia. Until 1918, the university was not even able to completely fulfil its national goal. Though its role in modernization and national integration was important, it was limited through non-acknowledgment of its academic titles in the Austrian part of the Monarchy, which meant that students from Dalmatia and Istria would not attend it.[29] The same argument probably impeded Slovenian students to study law in Zagreb. The University offered studies in theology, law and philosophy. Despite the fact that the latter studies were being broadened with some courses in natural sciences (which were rather attractive and 36% of students studied them), the academic range was still rather traditional, without technical and some natural sciences, as well as medicine. Therefore, a great number of students had to study abroad. For example at the turn of the century, almost 100 students from all Croatian lands (mostly Dalmatia) were matriculated yearly at the Vienna University; in the winter semester 1909/10, out of 837 students with Serbian or Croatian as mother tongue, 312 were citizens of Croatia and Slavonia in all Austrian universities.[30] The number of technical intelligentsia rose significantly towards the turn of the century. In Austrian technical colleges in 1909/10, out of altogether 238 students with Serbian or Croatian as mother tongue, 116 came from Croatia and Slavonia[31] and from 1815 to 1906, just in Vienna technical college there were about 700 students from various Croatian lands, almost 40%

29 At the Faculty of Philosophy 1874-1914 6% of students came from Dalmatia and only 1% from Istria. There were more students from Slovenia (25) than from Istria! Tihana Luetić, *Studenti Filozofskog fakulteta Sveučilišta u Zagrebu 1874.-1914., Master's thesis* (Zagreb: Faculty of Philosophy, 2005).

30 145 came from Bosnia and Herzegovina and 127 from Serbia. These statistics do not encompass Dalmatia and Istria since they were part of Cisleithania. Gary Cohen, "The Politics to Advanced Education in Late Imperial Austria". As a working paper available at: URL: cas.unm.edu/publications/papers.html.

31 31 were from Bosnia and Herzegovina and 10 from Serbia. Ebda.

of them from Dalmatia, but only 14% from Slavonia.[32] The Prague University[33] became a magnet as well, because of political reasons. Italian universities in Padua[34] and Bologna remained attractive to Istrian and Dalmatian students, and the university in Budapest was despite political reasons (often just because of them) still the *alma mater* of many students from Slavonia, but Croatia as well. Even a concise comparison of *peregrinatio academica* among the students from Slovenia, Croatia and Serbia shows that the University of Vienna was even more important and attractive to students from Slovenia than Croatia, because they lacked their own university, whereas Serbian students, who were in that respect in the same position as Slovenes, tended to study more often on the German and Russian universities or in Paris than their Croatian or Slovene counterparts.[35] I would very much agree with Lj. Trgovčević's argument that South Slavic students from dependent countries tended to study within the state their country was a part of.[36] So, Slovene and Croatian students mostly studied within the Monarchy. Of course, one must mention that since Serbia did not have a proper university,

32 Social structure is known just for half of them, but it amazingly puts sons of merchants in the first place with 24%. Report by Maja Brkljačić, as a part of the project "Croatians in Vienna 1790-1918", led by N. Budak and H. Heppner, unpublished manuscript.

33 Up to 1895 the number of students from Croatia in Prague did not exceed 3 per year, and they mostly studied at the German university. After that time it began to rise, and the majority attended the Czech university, but apart from 1908 and 1909, the years of student exodus from Zagreb, it usually did not amount to more than 20 per year. From 1882-1918 the total number was 444. The prevalence of law was evident (290 students), on the second place is philosophy (91) and on the third medicine (63). Different is the structure of altogether 57 doctors until 1918, 35 were doctors of law, 21 of medicine and just 1 of philosophy. There were 9 women doctors, 8 of medicine and 1 of philosophy. One should note the exodus of Slavic students from Austrian and Hungarian universities after the fall of the Monarchy, many of them coming to the Czech university in Prague (1918-1921 103 doctors, among them 95 of medicine).Therefore also a rather big number of Orthodox doctors of medicine. Whereas the social structure of doctors at both the German and Czech university until 1921 was similar (civil servants 25%, agriculture 23%, trade, banking and traffic 17%, craft & industry 10%, liberal professions 10%) the regional one differed: at the Czech university 58% of students were from Croatia and Slavonia, 34% from Dalmatia, 8% from Istria, at the German one 39% from Croatia-Slavonia, 48% from Dalmatia and 12% from Istria. Damir Agičić, *Hrvatsko-češki odnosi na prijelazu iz XIX. u XX. stoljeće* (Zagreb, 2000), pp. 134-135; D. Agičić, "Hrvatski doktori u Pragu 1882.-1921", *Časopis za suvremenu povijest*, Vol. 27, No. 1, 1995, pp. 137-154.; D. Agičić, Hrvatski studenti na češkom sveučilištu u Pragu 1882.-1918, *Časopis za suvremenu povijest*, Vol. 30, 1998, pp. 291-315.

34 Stijepo Obad, "Studenti Dalmati all'Università di Padova", *Atti, Centro di ricerche storiche – Rovigno*, Vol. 31, 2001, pp. 469-478.

35 Alojz Cindrič, "Vpliv dunajske univerze"; Irena Gantar-Godina, "Slovene Students in Central and Eastern Europe up to 1918", *Dve domovini [Two Homelands]*, Vol. 7, 1996, pp. 249-260; Ljubinka Trgovčević, "Serbian Intellectuals in Foreing Universities in the 19th Century", in Karady, Victor et al. (eds.), *L'inseignements des Elites en Europe Centrale (19-20e siecles)*. (Krakow, 1999), pp. 159-173; Ljubinka Trgovčević, "Obrazovanje i modernizacija. Osnove za poređenja u okviru jugoistočne Europe", in Fleck, Hans-Georg et al. (eds.), *Dijalog povjesničara-istoričara*, Vol. 2 (Zagreb, 2000), pp. 117-133. Herafter Ljubinka Trgovčević, "Obrazovanje i modernizacija".

36 Ljubinka Trgovčević, "Obrazovanje i modernizacija", p. 127.

grants were awarded for various universities abroad. However, I would like to point out that the pattern of Croatian students studying abroad is more differentiated, with Vienna, Graz, Budapest, Prague, Innsbruck, Krakow, but also Bologna, Padua, German universities or Paris as destinations.[37] If we also take into account that the Catholic clergy and artists were often educated outside the Habsburg Monarchy, the picture is more diversified. It should also be stressed that a broad spectre of Croatian elite was educated on various foreign institutions – diplomats, officers, merchants, engineers, architects, agronomists, etc. Many of them were in contact with contemporary ideas and tendencies during their formative years, and were eager to apply them in their homeland. However, the notion of the elite being intellectually profiled abroad and becoming a kind of "Kulturträger" in their homeland might be somewhat misleading. Not few of them strove to combine achievements of the Western and Central Europe with specific traits of their country. Others were able to reach high levels in art or science, which made them much more than pure epigones of foreign tendencies. This brings me to another dilemma, namely that of centre – semi-periphery and periphery. With no ambitions to start up a debate, I would just put forward my humble opinion that, at least art and culture in the broadest sense of the word do not easily submit to such hierarchization. Recently, much has been debated on multiple encoding of identities.[38]

At the turn of the century, the number of students in Zagreb rose significantly. From 1874/5 (290 students) to 1887/8 (438), there was a steady growth. A period of stagnation followed, ending in 1896/7. From that year there was a rapid growth of 100 students per year, with a climax in 1907/8 with 1464 students. This remained the quantitative apex for the whole period until 1918. The year 1907/8 was marked by the student exodus out of political reasons, and after that the numbers revolved around 1000 students. The law study prevailed (in 1874-1879, 65% of students), yet at the beginning of 20th century the percentage of philosophy students rose (in 1904-1909 to 30%) because of new courses. Most students (39% in 1884-1899) came from what statistics call "intellectual professions" (including different categories,

37 Unfortunately, there are no thorough studies on Croatian students abroad except for Vienna, Graz or Prague. See D. Agičić, op. cit.; Harald Heppner, "Die Rolle und Bedeutung der Grazer Universität für die Studentschaft aus Südosteuropa 1867-1914", in R. G. Plaschka-K. Mack (eds.), *Wegenetz europäischen Geistes*, Vol. 1 (Vienna, 1983), pp. 286-293; H. Heppner, "Studenti iz Istre na Sveučilištu u Grazu 1884-1914", *Radovi Zavoda za hrvatsku povijest*, Vol. 23, 1990, pp. 139-148; Gustav Otruba, "Die Universitäten in der Hochschulorganisation der Donaumonarchie", in *Student und Hochschule im 19. Jahrhundert. Studien und Materialien* (Göttingen, 1975); Gary Cohen, "Die Studenten der Wiener Universität von 1860 bis 1900", in *Wegenetz*, op. cit., Vol. 2, pp. 290-316.

38 Moritz Csáky, "Gedächtnis, Erinnerung und die Konstruktion von Identität", in Catherine Bosshart-Pfluger et al. (eds.), *Nation und Nationalismus in Europa. Kulturelle Konstruktion von Identitäten. Festschrift für Urs Altermatt*, (Stuttgart-Vienna, 2002), pp. 25-49; Moritz Csáky-Klaus Zeyringer (eds.), *Ambivalenz des kulturellen Erbes. Vielfachkodierung des historischen Gedächtnisses. Paradigma: Zentraleuropa* (Innsbruck-Vienna-Munich 2000).

such as civil servants, lawyers, doctors, etc.), agriculture was represented with 28%, craft and industry with 15% and trade and banking with 6%.[39]

Interesting is that the political situation is reflected on the regional and ethnic origin of students. The policy of ban Khuen Héderváry towards the Serbs in Croatia clearly had consequences on the academic life, at least at the Faculty of Philosophy. Namely, until the 1880s the percentage of its Orthodox students was 5-10%, in 1885/6 21% and in 1900/1 it amounted to 26%! Furthermore, regarding the regional background it should be pointed out that 17% students came from the Syrmian county and 12% from Lika-Krbava, to compare with Zagreb, which was represented with 16% and the Zagreb county with 14%.[40]

University soon became a political arena. Paradoxically the students at that time were to a large extent followers of *pravaštvo*, thus being fierce opponents of the National Party of the bishop Strossmayer. Towards the end of the 19th century, students became even more politicized. On the occasion of the 10th anniversary of the University in 1884, they drafted a declaration in which they sharply criticized the pro-Hungarian regime. The rector refused to obey the ban and undertake a second investigation, and was therefore suspended from his duty. This unique offence of academic autonomy aroused interest outside Croatia. But nothing could stop students. During the emperor's visit in 1895 they burned down the Hungarian flag. Since many students were thrown out of the Zagreb University, they continued their studies in Vienna and Prague, where they came under the influence of T.G. Masaryk[41] and became known as "progressive youth" ("napredna omladina") because of their liberal-democratic ideas. At the beginning of the 20th century, students were followers of various parties and ideologies, from clerical to radical nationalistic youth.[42] Even though university teachers were civil servants, they often enticed the political atmosphere. Because of their oppositional political activities, the dean of the Faculty of Philosophy, Đuro Šurmin, was in 1908 retired by decree, and professor of history Gavro Manojlović was suspended. This was followed by demonstrations, a temporary suspension of lectures and a great exodus of students to Vienna, Graz and Prague, but this time also to Belgrade. The students were welcomed by Istrian, Dalmatian and Slovene members of the *Reichsrat*, at the very same time as the German emperor visited Vienna, which gave the whole affair an international dimension.

39 Jaroslav Šidak, "Sveučilište do kraja prvog svjetskog rata", in: *Spomenica, op.cit.*, pp. 116-117.

40 This percentage of Orthodox does not include Bulgarian students. Percentage from Tihana Luetić, *Studenti Filozofskog fakulteta Sveučilišta u Zagrebu 1874.-1914.*, *Master's thesis* (Zagreb: Faculty of Philosophy, 2005), p. 69, pp. 80-84. The interpretation is mine. At the whole university, the number of Orthodox students was growing until 1899 when their percentage reached 19% and remained steady. The percentage of Catholic students dropped from 86% in 1874/5-1879 /80 to 77% in 1894/5-1899/1900.

41 Arnold Suppan, "Bildungspolitische Emanzipation und gesellschaftliche Modernisierung. Die südslavischen Studenten an der tschechischen Universität um die Jahrhundertwende und der Einfluss Professor Masaryks", in *Wegenetz*, op. cit., Vol. 2, 1987.

42 Mirjana Gross, "Studentski pokret 1875-1914", in *Spomenica,* op. cit., pp. 451-483.

Moreover, the greater Austrian circle around the heir Francis Ferdinand used it to criticize the Hungarian government.

Perhaps the best test paper of modernization is women's education. In the last decade of the 19th century, it was much improved; in 1894-5 girls in Zagreb attended primary school even in a slightly greater percentage than boys.[43] Moreover, a public lyceum for girls was founded in Zagreb in 1892, and in 1895 women were allowed to become irregular students of philosophy. Very soon, in 1901, they could obtain a regular status. In the Central European context, women in Croatia did not fare badly, since women students were allowed to study philosophy in Vienna in 1897, in Baden in 1899, in Hungary in 1895 and in Prussia only in 1908.

Girls and women grabbed the chance, from 1892 to 1901, 852 of them attended the Zagreb lyceum and in 1895-1914, 158 of them studied at the Faculty of Philosophy.[44] The social and confessional structure of the pupils of lyceum is interesting – a third of them were daughters of public and private employees, and more than a fifth of merchants and artisans. As expected, Jewish girls were overrepresented yet the percentage (16%) is surprisingly big, as well as the underrepresentation (12%) of Orthodox pupils.[45] The structure of philosophy students was different, in 1874-1914, 12% were daughters of teachers and professors, 11% of merchants and artisans, 10% of privateers and owners; 59% of women students were Catholic, 35% Orthodox, 3% Protestants and 3% Jews.[46] A higher percentage of Orthodox students stems from the influx of Bulgarian students who often came to Zagreb as the first academic step towards the Western and Central Europe.

By the beginning of the 20th century, the educational system produced first women doctors of philosophy, the very first one being a historian,[47] and allowed the practice of women doctors who obtained their degree abroad in Vienna or Zurich[48]. In 1918/19, there were altogether 208 women students, 108 of whom studied medicine.[49] The issue of women education shows that underdevelopment

43 Dinko Župan, *Pučko školstvo u vrijeme banovanja Ivana Mažuranića, Master's thesis*, (Zagreb: Faculty of Philosophy, 2002), p. 77. D. Župan, ""Uzor djevojke": obrazovanje žena u Banskoj Hrvatskoj tijekom druge polovice 19. stoljeća", *Časopis za suvremenu povijest,* No. 2, 2001, pp. 435-452.

44 Ida Ograjšek Gorenjak, *Otvaranje privremenog ženskog liceja i položaj građanskih žena u Hrvatskoj na kraju 19. stoljeća* (Zagreb: Master's thesis, Faculty of Philosophy, 2005); Tihana Luetić, "Prve studentice Mudroslovnog fakulteta kr. Sveučilišta Franje Josipa I. u Zagrebu", *Povijesni prilozi,* Vol. 21, 2002, pp. 199-206.

45 In 1910 in Croatia and Slavonia 72% of inhabitants were Catholic, 25% Orthodox, 2% Protestant and 1% were Jews.

46 Ida Ograjšek Gorenjak, *Otvaranje,* op. cit., p. 129.

47 It was Milica Bogdanović, with the doctoral thesis *Car Julije Apostat prema kršćanstvu*, defended in 1906. Luetić, Prve studentice, op. cit., p. 196.

48 The first doctor of medicine was Milica Šviglin Čavov (promoted in 1893), but she did not practice medicine in Croatia. The first to do so was in 1906 Karola Maier Milobar.

49 Jaroslav Šidak, Sveučilište do kraja prvog svjetskog rata, in *Spomenica,* op. cit., p. 115; Igor Karaman, "Socijalna i regionalna obilježja studenata na zagebačkim visokoškolskim

is often unjustly used as a stereotype explanation. In other words, in spite of Croatia's underdevelopment, women were offered education opportunities that existed in more developed countries. This does not refer just to Croatia, since women were allowed at universities in Greece in 1890, Turkey in 1894, and Bulgaria in 1901 (but up to 1918 they made up 25% of all students in Sofia). Moreover, the regulation regarding the status of women students was rather vague in Serbia, not expressly forbidding them to become students, which led to a number of women students in 1890s.[50]

At the turn of the century, Croatian initiatives became more numerous, and foreign influences were not mediated via the Central Europe, but were sometimes taken directly from the source. For example, Croatian teachers went to Sweden to get acquainted with slöjd, and to attend gymnastic courses in Stockholm. All in all, education was more precisely adapted to the needs of the modern middle-class society and its economy, with a rather propulsive enrolment in technical colleges.

I would like to end with a success story. By the beginning of the 20th century, the educational system produced first women doctors of philosophy, following the suit of more developed countries and thus showing that the European mission could (at least partly) be fulfilled in an underdeveloped country. The liberalisation of education can be illustrated by the example of a certain Danica Vlah, born in Kastav near Rijeka. Her educational path shows that social emancipation was available even to women of lower status. Danica was an orphan, who attended women's lyceum in Zagreb and obtained doctoral degree in Vienna with the thesis on Pavao Ritter Vitezović. To be honest, she might have used some charms of her sex to obtain the degree, since she barely passed all 5 strict exams and the report of her supervisor Milan Rešetar was rather critical of her work. Perhaps the committee at the Vienna University exercised political correctness without knowing of it.[51]

To conclude with, at the turn of the century Croatia followed the pattern manifest in the Habsburg Monarchy which might be called «Drang nach Bildung». It was visible in the growth of the number of pupils and students, which lead even to a certain discrepancy between state and society, since, at least Cisleithanian governments sometimes unsuccessfully tried to slow down this trend. On the eve of the World War I, Austria had the highest enrolment rate (relative to the total number of inhabitants) of all major European countries, surpassing

ustanovama", in *Hrvatska na pragu modernizacije* (1750-1918) (Zagreb, 2009), pp. 129-145.

50 Trgovčević, Obrazovanje, op.cit. pp.129-130.

51 Danica Vlah matriculated at the Vienna University in the winter term 1905/6, and she studied there until the summer term of 1909 Slavic philology, ancient history and history of Eastern Europe. Evidently, she was not a good student. She barely passed all of her five strict exams (the so called rigorosa) and the report by professor Milan Rešetar on her doctoral thesis was not flattering. Archives of the Vienna University, Rigorosenprotokolle, Ph 59.21, ad 2908.

in that respect France by 30% and England by 75%![52] The role of education in modernization was immense. For a variety of social, national or confessional groups of both sexes it became a means of emancipation, and for political parties an essential agenda in the political arena. In general, education provided a much more successful picture of modernization than economy or politics, yet in the Monarchy it was also an instrument of preserving and promoting its cultural polyphony and multilayered (re)structuring of identities.

CONCLUSION

The article deals with the modernization of school system in Croatia and the importance of education in the social, political and cultural context. The very first reforms were articulated during the enlightened absolutism, yet they were not so deeply implemented in Croatia as in Austria. Despite significant efforts in 1830s, reforms of primary and secondary schools began in the 1850s. The proper educational take-off in Croatia took place only in the 1860s and 1870s. It was visible in the founding of the Teachers' Association, periodicals, children's books and journals in Croatian, the development of pedagogical science, founding of a modern University in Zagreb and major elementary-school reform launched in 1874 by the government of the ban Ivan Mažuranić. The educational reforms were very often conveyed through the Central European filter and they brought about changes in everyday life of teachers and pupils through new schoolbooks, methods, looser disciplinary measures and more teaching means.

The Zagreb University, founded in 1874, was entangled between the unfulfilled ambition to be the academic centre of South Slavs and a more narrow one, that of a national *alma mater*. The number of its students rose significantly at the turn of the century, but still many students studied abroad. At the same time they became even more politicized.

In the late 19th century, education was differentiated, Croatian initiatives became more numerous, and foreign influences were not mediated via the Central Europe, but were sometimes taken directly from the source.

52 Gary Cohen, "The Politics to Advanced Education", op. cit.

Ljubinka Trgovčević

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

Modern Serbia and Education

Like in the majority of modern European states founded during the 19th 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.[1]

This destiny of a double periphery made the Serbian society one of the most underdeveloped in the 19th 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.

1 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[2], 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 19th 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 19th 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. Ćanović, *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.[3] 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 20th 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[4]. 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.[5] 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 Verlgleichsdaten* (München: R. Oldenburg, 1989), p. 99.

5 See Lj. Trgovčević, "Srpska inteligenicija 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 20th 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.[6]

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 19th 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

6 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.[7] 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 1st year was introduced at the Department of Law and since 1843 the 2nd 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,

7 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".[8] 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

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 19th 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";[9] 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

9 *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[10] at the end of the 19th century, while in Serbia this percentage was about 0.25%.[11] 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[12]

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 19th century, more and more students oriented towards different departments of faculties of philosophy, i.e. rather

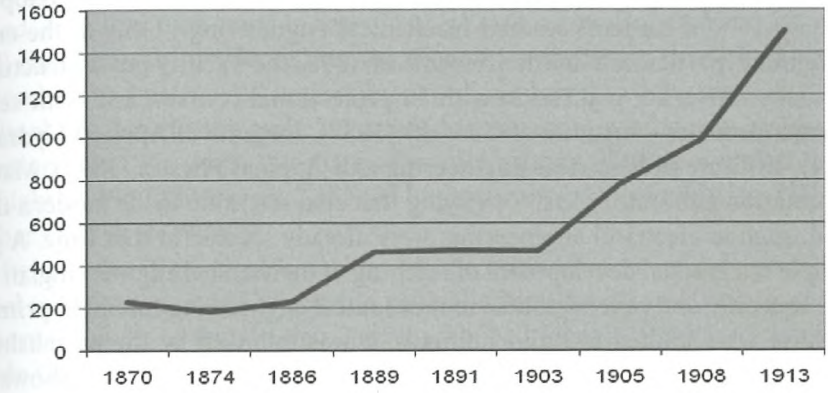
10 K. H. Jarausch, "Higher Education and Social Change: Some Comparative Perspectives", in Konrad H. Jarausch (ed.), *The Transformation of Higher Learning 1860-1930: Expansion, Diversification, Social Opening and Professionalization in England, Germany, Russia and the United States* (Stuttgart: Klett-Cotta,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

11 Data derived on the basic 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.

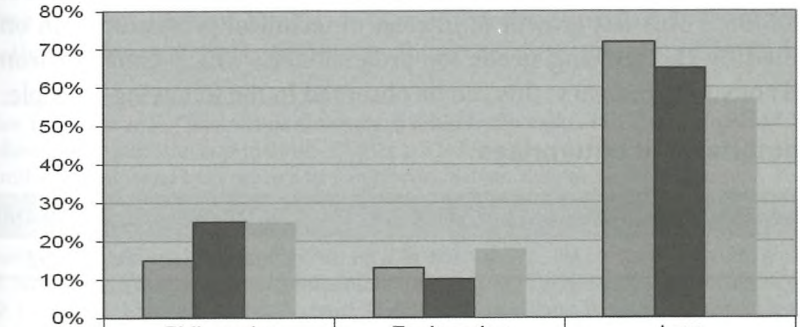
towards professions than general-type schools, as legal and socio-economic sciences (Kameralien) were thought to be. For example, in the second half of the 19th century, 20% of students in Germany studied law, while the percentage in Serbia was between 57% and 72%. It is obvious that the number of future 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



	Philosophy	Engineering	Law
1863-1872	15%	13%	72%
1872-1889	25%	10%	65%
1905	25%	18%	57%

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 19th 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 19th century, whereas three quarters of students chose this school in early 20th century.[13] 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.[14] 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 19th 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 20th 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.[15]

Higher education of girls started by the establishment of a Female High School in Belgrade in 1863.[16] Beside general education, its task was to prepare teachers for work in female elementary schools.[17] 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.[18]

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.[19] 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.[20] 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.[21]

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.[22] 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

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 beneficieres. 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 Srbkini v universitete v Šveicarija i Germanija 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, midwifes, etc.),[23] only teachers had higher education obtained at the Female High School while less than one hundred had university education.[24]

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.[25] 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 (baccaleureat). 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.[26] 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 19th 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

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.[27]

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[28] 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.[29] 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.[30]

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 prevailingly 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.[31] 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 20th century, which by its structure resembled the European one, however in numbers it still lagged far behind.[32] 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 20th 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

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 kartograga 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.

Roumiana Preshlenova

Emancipation through Education: Some Bulgarian Experience since the 19th Century

During the 19th century, popular in the Bulgarian historiography as national Revival, a growing number of Bulgarians got acquainted with the achievements and values of the contemporary European societies. More intensive trade relations, contacts with the newly established diplomatic representations of the Great Powers in the Ottoman Empire, European voyagers, Catholic and Protestant missions in South-Eastern Europe, education at European universities were the main channels through which the impact of the French revolution and modern ideas in political, economic and cultural life penetrated the Balkans.[1] The urban space with specific communication facilities in the first place functioned as the most influential site of transmission. The Western model, which won recognition in a prolonged and complex process, not without contradictions, embodied for the enlightened Bulgarian elite the prospects for the future development and the negation of the rejected Ottoman domination. Its features – intensive urbanization, parliamentary democracy, sustained technological transformations, multiplication of communications, compulsory and common accessible education – made a significant part of the projects for national emancipation. In the rhetoric of the late 19th and early 20th centuries, adoption of the Western model of social development was declared the way for the Bulgarians to take their place among the civilized, prosperous or just enlightened nations and to be part of the modern world.[2]

Emancipation in this case was understood as overcoming the complex Ottoman heritage associated with Orientalism. A second line of development confronted Greek religious and educational influence which dominated Bulgarian intelligentsia till the mid of the 19th century. Thus, national education seemed to be committed to change the cultural belonging of the Bulgarians and to perform

1 "Balkans" and "Balkan" are used as synonyms for South-Eastern Europe and South-Eastern European without any derogative connotations inherent in some texts of Western authors. See Maria Todorova, *Imagining the Balkans* (New York – Oxford, 1997).

2 See Veska Nikolova – Dimitur Sazdov (eds.), *Programi, programni dokumenti i ustavi na burzhoaznite partii v Bulgariya* (Sofia, 1992).

the shift from the Balkan-Oriental model to the European one. It concentrated the efforts and the will of the enlightened elites to change the status of the nation and to approach the achievements of modernity in the states which shaped the image of Europe.[3] Several public celebrations related to education not only mobilized the social energy for this but also promoted national self-esteem. The biggest among them is the day of the Saints Cyril and Methodius, the creators of the Cyrillic alphabet, celebrated since 1851/57 as the Day of Bulgarian Education and Culture and of Slavic Literacy. A particular hymn of the Saints Cyril and Methodius was created in 1892 by Stoian Mihailovski and the music to it by Panaiot Pipkov in 1900. The hymn is played in every Bulgarian school throughout the world on 24 May. Hundreds of schools, the National Library in Sofia and the University in Veliko Turnovo added the names of the two saints to their names. The day of the Seven Saints – Cyril, Methodius, Kliment, Sava, Gorazd, Naum, Angelarius – is intended to outline the specific Bulgarian contribution to the preservation of the Cyrillic alphabet and the old Slavic literature. Explicitly celebrated are: the Day of the peoples' spiritual leaders, the Day of St. Kliment Ohridski, patron of the Sofia University which became the day of all Bulgarian university students at the beginning of the 20th century.

This is just one of the many occurrences of a specific affinity for education in Bulgaria formed through the last one and a half centuries. Reports of foreign observers in the late 19th and the early 20th centuries indicate this peculiarity. Felix Philipp Kanitz, Austro-Hungarian traveller, geographer, ethnographer and journalist during the 1860s and 1870s, pointed out in his *"Donau-Bulgarien und der Balkan"* that the Bulgarians have a strong natural inclination towards learning. He supported this statement not only by his personal experience in different towns and villages but also by impressive examples of donations made by wealthy Bulgarians for promoting national education.[4] Analogous observations were also made by Count Zichy, an Austro-Hungarian ambassador to Constantinople in 1874, although he put them into a diplomatic context: the aspirations of the Bulgarians for progress and education are so evident, and anyone who would offer them a possibility to satisfy this striving will have their affection and gratitude. The Czech historian Konstantin Jireček, invited as an expert and later minister in the Bulgarian Ministry of Education during the early 1880s, a man extremely critical of the political elite, of urbanization and living conditions in Sofia at that

3 Angel Dimitrov, *Uchilishteto, progresut i natsionalnata revoliutsiya: Bulgarskoto uchilishte prez Vuzrazhdaneto* (Sofia, 1987); Nikolai Genchev, *Bulgarsko vuzrazhdane* (Sofia, 1978); Nikolai Genchev, *Bulgarskata vuzrozhdenska inteligentsiya* (Sofia, 1991); Raina Gavrilova, *Vekut na bulgarskoto duhovno vuzrazhdane* (Sofia, 1992); Nikolai Aretov – Raia Zaimova (eds.), *Modernostta vchera i dnes* (Sofia, 2003). For a more general view on this issue see in Serge Latouche, *Die Verwestlichung der Welt (*Frankfurt am Main, 1994).

4 Felix Kanitz, "Donau-Bulgarien und der Balkan: historisch-geographisch-ethnographische Reisestudien aus den Jahren 1860-1875", *Bd. 1-3*, Leipzig 1875-1879, pp. VI, 87, 159, 208, 217, 234, etc.

time, admired the apparent endeavours of the Bulgarians to be enlightened and to develop.[5] Almost thirty years later, Harry de Windt, an English officer and traveller, reflected in his book "Through Savage Europe" the great aptitude for learning, books, newspapers showed by the Bulgarians.[6] The explicitly positive disposition towards promotion of education and culture as a peculiarity of the Bulgarian nation is stressed also by several German and Austro-Hungarian military observers during the Balkan Wars and World War I.[7] These impressions by foreign commentators in the long period from the 1860s to World War I display a sustained trend with a relatively high social value.

After the re-establishment of the autonomous Kingdom of Bulgaria in 1878, efforts of state, municipalities, economic and political elite to demonstratively turn to the European patterns and standards affected first of all town planning, construction and architecture. New cultural institutions occurred which were not existing by that time – publishing houses, libraries, museums, institutions of higher education, theatres. In the first decades after the liberation, European experts were invited to carry out these changes. This had a long-term social effect outlining the direction for the future advancement. As public discourse on modernization or "Europeization" as opposed to the prior compulsory imposed Ottoman pattern concerned the means and ways of realization but not its sense, it could be regarded as a principal consensus.[8]

Beyond the nation-building role, education has another role – to disseminate knowledge and skills and thus accelerate economic development. It promotes economic progress in general and industrialization in particular as far as both are intellectual activities based on acquisition of knowledge and technical methods. In this context, education is regarded a significant factor of production next to land, capital and work. This view of most of the leading activists of the Revival is a further explanation for the special attention they paid to it. Comparable indices of education in Bulgaria during the long 19th century – state funding per capita, number of teachers per 1000 inhabitants, share of children in the age between 5 and 15 years *regularly* going to school – were approaching the respective average values in Europe and were among the best in South-Eastern Europe.[9] They reveal

5 Konstantin Jireček, *Bulgarski dnevnik 1879-1884. Tom I. Plovdiv* (Sofia, 1930).

6 Harry De Windt, *Through savage Europe being the narrative of a journey throughout the Balkan states and European Russia* (London, 1907), pp. 218, 234-235.

7 Mechthild Golczewski, *Der Balkan in deutschen und österreichischen Reise- und Erlebnisberichten 1912-1918* (Wiesbaden, 1981), pp. 33, 176.

8 Roumiana Preshlenova, "Challenges of Liberty. Shaping Identifications in Bulgarian Urban Space after 1878. - "We" and "The Others": Modern European Societies in Search of Identity", *Studies in comparative history, Studia historica LIII, Acta Universitatis Carolinae. Philosophica et Historica 1-2000*, Praha, 2004, pp. 103-115.

9 Holm Sundhaussen, „Alphabetisierung und Wirtschaftswachstum in den Balkanländern in historisch-komparativer Perspektive", in Norbert Reiter – Holm Sundhaussen (eds.), *Allgemeinbildung als Modernisierungsfaktor. Zur Geschichte der Elementarbildung in Südosteuropa von der Aufklärung bis zum Zweiten Weltkrieg (Balkanologische Veröffentlichungen 23)* (Berlin, 1994), pp. 21-36.

a strategic investment whose maximal accelerating effect was expected in years to come.

According to official statistics, literacy in Bulgaria doubled from 27% to 52% from the late 19th century to the eve of World War I. This positive although insufficient progress can be attributed to the priority given to education. The existing network of primary schools was extended, and many buildings for them were constructed voluntarily by the population. In addition, a number of professional schools have been established immediately after 1879: several pedagogical courses and colleges, the Military School in Sofia (1878), the Handicraft School in Kniazhevo (1883), the first Academy of Trade in Svishtov (1884-1885), agricultural schools with model farms in Obraztsov Chiflik near Rousse and in Sadovo (1883). In the next years, the Art School in Sofia (1896), the state school for deaf-and-mute students (1898), the Academy of Music in Sofia (1904), the first school for blind students (1905) appeared. Between 1893 and 1905, 56 private girls' schools were established as well. On the eve of the World War I, there were already 4,033 schools in Bulgaria, and 37 of them were full high schools. The Ministry of Education took up the administration of and the control over all educational institutions in the country with the laws from 1891 and 1909. In the school year 1909/1910, only 22% of the obligated children did not go regularly to primary and secondary schools, which were free of charge.[10] Many foreigners, mainly Slavs from the Habsburg Monarchy, were invited to teach and organize education in Bulgaria.[11]

The idea of the establishment of an own university or higher school was welcomed by many prominent Bulgarians during the Revival. Among them were Vasil Aprilov, Ivan Bogorov, Konstantin Fotinov, Gavril Krustevich, Ivan Seliminski, graduates from prestigious European universities. The founders of the Bulgarian Learned Society (1869) in Braila, the Bulgarian Community in Constantinople and the Bulgarian Exarchate, established in the Ottoman capital in 1870, shared the same vision. But there were not enough resources to achieve this goal under the conditions of the alien rule. After the liberation, the first Bulgarian prince Alexander von Battenberg and the Czech professor Konstantin Jireček, minister of education in 1881-82 became the protagonists of a higher school. Indeed, the first Bulgarian Higher School was founded in 1888, only a decade after the reestablishment of the state and renamed university in 1904. The biggest personal donation ever made in Bulgaria was explicitly aimed at this goal – the establishment of a national higher school. Evlogii Georgiev, considered the wealthiest Bulgarian in the 19th century and one of the most generous partisans of national education and enlightenment, granted a site of 10,200 m² in the centre

10 Nikola Vankov, *Istoria na uchebnoto delo v Bulgariya* (Sofia, 1930), pp. 86-109; Veliko Iordanov, *Materiali za izuchavane na uchebnoto delo v Bulgaria. Kn. II. Razvitie na nasheto uchebno delo ot Osvobozhdenieto do voinite (1878-1913)* (Sofia, 1925).

11 Angel Penev – Petur Petrov, *Chuzhdentsi – prosvetni deitsi v Bulgariya* (Sofia, 1988).

of Sofia and 800,000 francs for the construction of the building for the Bulgarian university in 1896. He also donated 6,000,000 francs for the establishment of a technical university in his will.[12]

It is true that till 1918 the university remained incomplete in terms of the classic pattern having only a Physical-Mathematical, Historical-Philological and Juridical Faculty. The decision of 1897 to establish an agricultural department at the university and that of 1917 to open a medical faculty did not change this situation. Furthermore, there were fewer graduates from this university than the Bulgarian students educated abroad in the same period. But the very existence of the university at that time demonstrated a shift to other, non-Oriental models of development. Consequently, the share of people with a university or higher school degree increased especially among the political elite: in the Constituent Assembly there were just 20% of people with such education in 1879, this percentage rising to 31% in 1899, and to 43% in 1908.[13] There were of course critical opinions on the state of education and even on the very existence of the university in Bulgaria. The same year when Harry de Windt praised the Bulgarians for their studiousness, a debate developed on the occasion of the university crisis in Sofia in 1907. The social legitimacy of the institution was contested in the press by prominent intellectuals, such as Stoian Mihailovsky, Dr. Momchilov and Krustiu Krustev because of the immaturity of the nation. The lack of adequate material resources for the development of the Sofia University was also underlined. The main motif for the establishment of the Sofia University was interpreted by its critics like this: "People do not want to remain beneath Belgrade, Bucharest or Athens, so the university opened for parade, for luxury".[14] In his response to such criticism, the already mentioned Konstantin Jireček, at that time professor at the Vienna University, pointed out: "If there are small universities in Athens, Corfu, Zagreb, Belgrade, Bucharest, and Jassy, why not have one in Bulgaria as well?"[15]

A specific form of emancipation occurred also with regard to Russian education, which was among the measures for creating a network of supporters for Russian political ambitions among the Slavic population in South-Eastern Europe. After the Crimean War, numerous scholarships were provided for young Slavs at Russian schools and universities. On the other hand, Bulgarian students sent to universities and higher schools in Central and Western Europe did not

12 Elena Statelova, *Evlogii Georgiev i svobodna Bulgariya* (Sofia, 1987); Elka Drosneva (ed.), *Daritelite Evlogii i Hristo Georgievi* (Sofia, 1998).

13 Zina Markova, Elena Statelova, „Sotsiologichesko prouchvane na sustava na Uchreditelnoto subranie", in Georgi Vulkov (ed.), *Turnovskite zakonodateli. Iubileen sbornik* (Veliko Turnovo, 1980), pp. 26-27; Iordan K. Kolev, *Bulgarskata inteligentsiya 1878 – 1912 g* (Sofia, 1992), p. 74.

14 Pepka Boiadzhieva, *Universitet i obshtestvo: dva sotsiologicheski sluchaya* (Sofia, 1998), pp. 284-287.

15 Petur Miyatev (ed.), *Iz arhivata na Konstantin Jireček. Prepiska s bulgari. Dokumenti za obshtestveno-politicheskata i kulturnata istoriya na Bulgariya ot 1871 do 1914 godina* (Sofia, 1953), pp. 294-295.

receive scholarships from the respective country, except for a very small number of people. They were supported from native resources, such as wealthy parents, relatives, compatriots, communities, or Bulgarian charity associations, such as the "Blagodetelna Drouzhina" (Benevolent Society) in Bucharest or the Society "Napreduk" (Progress) in Vienna. These offset Russian educational activities to a significant degree. Bulgarian emigrant merchant colonies in Romania and Vienna used to finance young gifted men during their studies abroad. Significantly, they sent them predominantly to high schools and universities in the Slavic areas of the Habsburg Monarchy – Zagreb, Prague, but also Vienna. Before the establishment of a Bulgarian diplomatic office in Vienna in 1889, the firm of Nikola and Sava Panitsa performed such functions for Bulgarian students as well as for different missions defending the Bulgarian cause in the capitals of the Great Powers. They or other compatriots in Vienna met the students, accompanied them to the respective school or university, forwarded evidence for their progress and behaviour, and transferred their scholarships. From 1872 to 1881, the "Benevolent Society" for example financed totally the education of nineteen young Bulgarians either partly or by full scholarships. Nine of them studied in Austria-Hungary, six in Russia, two in Bulgaria, one in Paris and one in Munich. It is worth mentioning that the Society was known as one of the leading Russophile organizations of the Bulgarian bourgeoisie.[16] Support for Bulgarian students predominantly in universities and higher schools in Central Europe corresponded to the respect and admiration for modern European progress in education, science and technology. This social mobilization to promote the status of the Bulgarian population and to foster modernization is admittedly a part of the complex nation-building process in South-Eastern Europe.

The balance of the two students' streams – to Russia and to European universities, was more favourable to the second one, according to recent studies. Till 1878, 220 Bulgarians studied at Russian universities, most of them with a scholarship from the Russian emperor or from Slavic charity committees. Twice and a half more Bulgarian students acquired their higher education in other countries - 150 in Constantinople (not only at Ottoman institutions, but also at the famous American Robert College and Lycée Français in Galata), 160 in the Habsburg Monarchy, 70 in Romania, 70 in France, 45 in Germany, 30 in Greece, etc.[17] This proportion repeats roughly in the educational profile of the Bulgarian governmental elite in 1879-1915. Less than one third of the ministers

16 Bulgarski Istoricheski Arhiv – Natsionalna biblioteka „Sv. Sv. Kiril i Metodii", f. II B 9291, l. 134. See also Nikolai Zhechev, *Bucuresht – kulturno sredishte na bulgarite prez Vuzrazhdaneto* (Sofia, 1991), pp. 234-237.

17 Nikolai Genchev, *Bulgaro-ruski kulturni obshtuvaniya prez Vuzrazhdaneto* (Sofia, 2002), pp. 113-202. Data about Austria, The Czech Lands, Hungary and Croatia are summed up as these were parts of the Habsburg Monarchy.

in this period were educated in Russia and afterwards some of them also attended universities in Central and Western Europe.[18]

Enthusiasm for Russian educational institutions remained moderate also after the liberation in the course of the Russo-Turkish war in 1877-78, which strengthened some Russophile sentiments among the population. This trend remained continuous, despite sometimes changing political priorities of the Bulgarian governments. The share of state bursaries for students at Russian universities was diminishing. It dropped dramatically especially after 1886 when diplomatic relations between Sofia and St Petersburg were broken. During the whole period 1879-1909, the total number of Bulgarian state grants for foreign universities was around 600. Remarkably, 160 from them were intended for France, 140 for Austria-Hungary, 115 for Germany and only 76 for Russia.[19] It would not be exaggerated to interpret the destination of state scholarships also as a tool for the country's emancipation from Russian hegemonic pretensions.

The overall number of Bulgarians studying abroad was much greater than the one of state grants. Only in the academic year 1897/98, 1000 young people studied abroad according to the Ministry of Education. The data on particular universities also confirm this assumption: in 1913/1914, 330 Bulgarians were studying only at the New Brussels University, and further 80 in Vienna, where nearly 1000 Bulgarians have been ascertained up to World War I. In Zurich, some 220 Bulgarians were registered at the university by that time. The European universities played a crucial role for the Bulgarian development, which is evident also from the fact that the total number of their graduates (totally 1500 by 1909) exceeded many times the number of graduates at the Sofia University. Up to that time, only the number of probated diplomas from foreign universities was 1600. Most of them were obtained in Central and Western Europe: in France (318), in Switzerland (305), in Austria-Hungary (272), in Germany (225). The number of diplomas obtained in a small Belgium (162) is comparable to the number of those obtained in Russia (185).[20]

18 Dobrinka Parousheva, *Pravitelstveniyat elit na Rumania i Bulgariya vtorata polovina na XIX i nachaloto na XX vek* (Sofia, 2008), p. 220.

19 Figures are rounded. Roumiana Preshlenova, *Po putishtata na evropeizma. Vissheto obrazovanie v Avstro-Ungaria i bulgarite (1879-1918)* (Sofia, 2008), p. 273. Herafter Preshlenova, *Po putishtata*. More details on state support in the initial years after the liberation see in Ivan Tanchev, *Bulgarskata durzhava i uchenieto na bulgari v chuzhbina 1879-1892* (Sofia, 1994), pp. 93-97.

20 Preshlenova, *Po putishtata*, pp. 56, 60-61; Alexandre Kostov, *Bulgariya i Belgia. Ikonomicheski, politicheski i kulturni vruzki (1879-1914)* (Sofia, 2005), pp. 69-70; Werner Zimmermann, „Serbische und bulgarische Studenten an der Universität Zürich bis zum Ersten Weltkrieg", in Richard Georg Plaschka – Karlheinz Mack (eds.), *Wegenetz europäischen Geistes II. Universitäten und Studenten. Die Bedeutung studentischer Migrationen in Mittel- und Südosteuropa vom Ende des 18. Jahrhunderts bis zum Ersten Weltkrieg* (Wien, 1987), pp. 250-251. Hereafter Plaschka – Mack (eds.), Wegenetz.

A high number of Bulgarians who studied in Central and Western Europe after 1878 is a phenomenon worth further detailed research. It is part of the increasing stream of young people attending universities as well as of a growing mobility and communication, which had clear analogies at least in Serbia and Romania.[21] It could hardly be explained by Bulgaria's greater underdevelopment than that of other South-Eastern European countries. Its interpretation is inevitably embedded in, although not limited to the manifested efforts and measures of the elites to catch up with European developments. In the Bulgarian case, the correlation between the diminishing state bursaries for studying abroad and the growing number of Bulgarian students at universities and higher schools in Austria-Hungary since the late 19th century[22] implies at least an autonomous development of the students' current. Whether state support was the prevailing source of study financing even in the years after the liberation is a question which demands further particular and wide-ranging research. Indicative in this respect are also data from the educational ministry on Bulgarian students abroad in 1881-1882. Almost two thirds of them were supported by their families and only 14% were holders of state grants. Not less striking is the fact that the share of students at the Sofia University in 1896-1914 financed by sources outside their families rarely exceeded 1%.[23] In addition, private donations for educational purposes and for regular scholarships[24] continued tradition from the previous period, despite the expectations of a decisive role of the "own" state. In this context, social mobilization seems to have had a much greater role in fostering education than it is usually accepted and the concept of a state-nourished intelligentsia needs a certain re-evaluation.

A striking parallel to the 19th century Bulgarian phenomenon of studying abroad can be found in a recent development. According to Eurostat, the number of Bulgarian students enrolled in foreign European tertiary education increased more than four times during the last decade – from 4,900 in 1998 to 22,600 in 2007 when the accession to the EU took place. Reportedly, further 20,000 Bulgarians comprise the third largest foreign students' group in the USA, after the Chinese and Russian ones. That means that about 15% of all Bulgarian students study at European or American universities. Whether this means striving for a faster integration into supranational developments, a new rationality or just

21 Plaschka –Mack (eds.), Wegenetz; Harald Heppner, "Führungsschichten und Staatswerdung am Balkan im 19. Jahrhundert", *Schriftenreihe des Instituts für Geschichte*. 2. Graz 1988, pp. 115-130; Љубинка Трговчевић, *Планирана елита. О студентима из Србије на европским универзитетима у 19. Веку* (Београд, 2003); Elena Siupiur, „Intelectuali, elite, clase politice moderne în Sud-Estul European", *Secolul XIX*, 2004; Wolfgang Höpken, „Die „fehlende Klasse"? Bürgertum in Südosteuropa im 19. und frühen 20. Jahrhundert", in Ulf Brunnbauer, Wolfgang Höpken, (eds.), *Transformationsprobleme Bulgariens im 19. und 20. Jahrhundert. Historische und ethnologische Perspektiven (* München, 2007), pp. 33-69.

22 Preshlenova, *Po putishtata*, pp. 273-276.

23 Ibid., pp. 192-193, 200.

24 Veliko Iordanov, *Dariteli po narodnata ni prosveta. Biografichni belezhki. Kn. I* (Sofia, 1911).

dissatisfaction with the national educational system and social environment is a matter of individual choice. Anyway, it reflects a new strong ambition to change the status quo.

Attractiveness of education of course has another perspective which was not always relevant to national sentiments. Studying at a university or a higher school was motivated by the unprecedented vertical social mobility also in egalitarian states like Bulgaria. In the late 19th century Bulgaria, where qualified experts in almost all professions were lacking, university diploma was a kind of permit for high social positions, especially in administration. "Learn for not have to work" is a saying that reflects the very positive attitude to intellectual, inclusively administrative professions as a way to avoid hard physical work. It is more or less a universal disposition. Even nowadays it exists among Bulgarian students (and not only among them). The official data at the beginning of the 21st century reveal a relatively high share of students in social sciences and humanities in Bulgaria – almost a half of all. Many of them enter a university or higher school without a clear orientation, they just choose an exam they consider easiest to pass. Therefore, there is still a deficiency of students in maths, natural sciences, computing, where just 5% of the students were enrolled in 2006.

In the process of nation building, the function of education as a means of accelerating economic development had a secondary importance. In this aspect, it has been regarded as a long-term investment in the future. The Bulgarian economy was based overwhelmingly on small-scale peasant agriculture like all other Balkan economies before the World War I. It was only beginning the process of industrialization, which was the hallmark of modern growth. Structural shifts of labour and financial resources into advanced technologies, which turn such growth into sustained development, were just starting to occur. A recent survey of Bulgarian statistical data reveals stagnation in per capita GNP from 1879 to the 1930s. Evidence is available of a new phase of intensification in agriculture from the 1920s onwards.[25] In this state of affairs, education could not do miracles. Compared to most of the states in Western and Central Europe at that time, Balkan economic achievements were very modest. In this sense, the process of their disputable modernization, often called Europeanisation or Westernisation, unavoidably acquires labels, such as partial and superficial. The very fact of a simultaneous transition from pre-industrial to industrial and from Oriental to European patterns made it much more complicated. The fact remains that the Bulgarian elite demonstrated its aim to follow the advanced European countries or rather to adopt some of their economic and cultural achievements and to adapt them to the specific, very unfavourable conditions as a basis for transformations toward the standards of contemporary industrial societies. The

25 Martin Ivanov, Adam Tooze, "Convergence or Decline on Europe's Southeastern Periphery? Agriculture, Population, and GNP in Bulgaria, 1892–1945", *The Journal of Economic History*, 67, 3, 2007, pp. 672-703.

long 19th century momentum nurtured the prospect of modern development in the framework of the nation-state and gave that prospect an irrevocable place in the national consciousness.[26] What was expected from education – to prove a new cultural belonging and to publicly propagate it – has been achieved.

26 John R Lampe, "Imperial Borderlands or Capitalist Periphery? Redefining Balkan Backwardness, 1520-1914", in Daniel Chirot (ed.), *The Origins of Backwardness in Eastern Europe. Economics and Politics from the Middle Ages Until the Early Twentieth Century* (Berkeley – Los Angeles: Oxford, 1989), p. 202.

Peter Vodopivec

Educated Elites in Slovene Regions before WWI – between National Aspirations and Social and Political Conservativism

In the 19th century, the Austrian provinces populated by Slovene-speaking population experienced a relatively slow social and economic development, but at the same time a significant cultural change characterized by rapidly increasing literacy. While according to the estimates of the Slovene historians more than 92% of the population was still illiterate at the end of the 18th century, the rate of literacy increased to 80% and in some areas even to over 85% over the next 100 years, i.e. by the end of the 19th century. Before the WWI, Slovenes were thus ranked just behind Germans, Czechs and Italians in terms of literacy rate within the Habsburg Monarchy.[1] The rapid growth of literacy in the second half of the 19th century was a result of modernization of the primary school education since the 1869 school reform and the increasing number of primary schools using Slovene language as the language of instruction. By expanding literacy and education, also the culture of reading spread. This is also seen from the increasing number of copies of the publications by a catholic Družba sv. Mohorja publishing house, which printed books in Slovene for less educated and peasantry readers. Even back in 1875, some of its books were already printed in 25.000 copies, in 1890 in around 50.000 copies, and just before the end of world war the print-run rose to as many as 90.000 copies.

The number of high school graduates, however, grew much slower. In the fifty years from the introduction of high-school graduation exam ("matura" exam) in the Austrian half of the Monarchy in the 1850s, there were 4513 graduates in the high schools on the territory of today's Slovenia (all of them were boys); in the period 1901-1910, there were another 2404 high-school graduates (7 of them were girls), and in the period 1911-1920, this number rose to 3613 (of whom,

1 Ferdo Gestrin – Vasilij Melik, *Slovenska zgodovina od konca osemnajstega stoletja do 1918* (*Slovene History from the End of 18th Century to 1918*) (Ljubljana: Državna založba Slovenije, 1966), p. 261.

84 girls).[2] Around 1900, Slovenes lagged behind Czechs, Poles and Croats in the Monarchy in terms of the number of high-school graduates. In the opinion of Slovene historians, this was an inevitable consequence of the poor status of Slovene language in high schools, particularly in "gymnasiums". Only a few of them were bilingual (only in the lower classes), while the instruction in the majority of them and in all higher classes was in German or Italian (in the Littoral area). The first entirely Slovene "gymnasium" was a private Episcopal "gymnasium" founded in Šentvid near Ljubljana in 1905, and the only Slovene state "gymnasium" in the Habsburg Monarchy was founded in Gorizia in 1913. Lessons in Slovene also took place in some technical and vocational schools; the first female vocational and secondary schools were founded towards the end of the 19th century.

Although demands for a Slovene university had been an element of the Slovene political program since 1848, the Austrian authorities paid it no heed until the end of the Monarchy in 1918. The movement to establish a Slovene university – either in Ljubljana or Trieste, where also the Italians were demanding their own university – gained new momentum at the start of the 20th century, but again to no avail. Slovene students therefore mainly studied at the universities in Vienna and Graz and since the end of the 19th century also in Prague and Krakow. By far fewer students, however, went to the University of Zagreb, since its degrees were treated as foreign in Cisleithania, due to the differences in the education and legislation systems of the two halves of the Monarchy. At the beginning of the 20th century, some liberal-thinking students also grasped the idea that the Slovene educated classes could go west, to Paris if possible, and experience new ideas there, if they wanted to expand their horizons and escape the forma mentis of the German and Austrian universities. But in reality only few individuals turned towards the non-German Europe and the Western European university centres before the WWI. Until the end of the Monarchy, the great majority of Slovene students studied at the Austrian universities and higher education colleges; their number rose from around 350 in 1880 to more than 1000 per year in 1914. According to the data based on the Austrian statistics published by Vasilij Melik in 1986, the following number of Slovene students was enrolled at Austrian Universities, high- and higher-education colleges in the period 1876-1913:[3]

2 Janez Kmet, "Nekaj podatkov o razvoju naše gimnazije" (*Some Data on the Development of our "Gymnasium"*), *Prikazi in študije*, III, No. 9, 1957, p. 24; Mateja Ribarič, "Od mature do mature", *Od mature do mature, Zgodovinski razvoj mature na Slovenskem 1849/50 – 1994-95* (*From Graduation to Graduation, Historical Development of Graduation on Slovene Territory 1849/50 – 1994-95*), Razstavni katalog 62, Ljubljana: Slovenski šolski muzej 1998, p. 19.

3 Vasilij Melik – Peter Vodopivec, "Slovenski izobraženci in avstrijske visoke šole" *(Slovene Educated Men and Austrian Colleges 1848 – 1918)*, *Zgodovinski časopis*, 40, 1986, No. 3, p. 272. The year 1876 denotes the study year 1875/76, the year 1886 – study year 1885/86, and the same all through to 1913, which denotes the study year 1912/13. In the last study year, another 30 Slovene students of the Export Academy in Vienna and the Higher College of Commerce Revoltella in Trieste should be added to the total of 926 Slovene students, as well as 11 students of the Art Academies and 5 students of the Academy of Music and Fine Arts in Vienna. Thus,

Slovene students at Austrian universities (Vienna, Graz, Prague, Krakow)

Year	Theol.	Law.	Med.	Phil.	Tech.	Bodenkultur	Mining	Veterinary Med.	Together
1876	139	80	9	89	72	0	3		392
1886	180	128	28	12	20	1	3		352
1896	262	147	73	49	34	5	3		568
1900	244	246	58	69	29	5	1		652
1910	176	388	74	71	102	27	9	24	871
1913	221	309	90	93	120	42	8	43	926

Two thirds of all Slovene university students studied in Vienna. Until around 1900, the majority of students of Slovene origin studied theology, if we refer to the statistical data which include also the regional Episcopal colleges. After that, the number of the law students prevailed. There were also more and more students of philosophy, medicine and technical sciences (the number of the latter grew since 1860, at first slowly and since 1900 faster – so that after 1910 their number even exceeded the number of medicine and philosophy students). The first Slovene women to attend the University in Vienna enrolled medicine and philosophy at the outset of the 20th century. In the period 1897-1918, there were 43 women – all from the Carniola province, who studied medicine and philosophy at the Vienna University.[4] Before the WWI, only the most optimistical Slovene political leaders were of the opinion that Slovene educated elites already had the professional structure needed for the most vital interests of national existence as well as the experts for the majority of areas that could influence further Slovene national development and formation.

Obviously, such assessments were rather exaggerated: according to the above-mentioned data, in 1914 there were around 5000 persons living and working on the territory of today's Slovenia (of whom perhaps 10 or slightly more women) with high school graduation ("matura exam") in the period from early 1980s to the WWI, i.e. a mere 0.3 % or 0.4 % of total population.[5] There were even much fewer university, high or higher education graduates. Although no

the total number of Slovene students at the Austrian universities, high and higher-education colleges was 972. See also: Alojz Cindrič, *Študenti s Kranjske na dunajski univerzi 1848 – 1918* (*Students from Carniola at the Vienna University1848 – 1918*), (Univerza v Ljubljani, 2009), pp. 28- 29.

4 Cindrič, *Študenti s Kranjske na dunajski univerzi*, pp. 565-568.

5 According to the estimates in the Slovene historiography, around 1,411,700 people lived on the territory of today's Slovenia in 1914. See: *Slovenska novejša zgodovina 1848-1992 (Slovene Contemporary History)* (ed. by Jasna Fischer et al., Ljubljana: Inštitut za novejšo zgodovino (*Institute for Contemporary History*) and Mladinska knjiga, 2005), p. 19. I would like to thank my colleague Branko Šuštar for drawing my attention to the low percentage of high-school graduates among the Slovene population.

detailed data is available on the university graduates in terms of professions, the share of university students and graduates of Slovene origin was certainly much lower than that of Austrian Germans, Poles and Czechs. This was, according to prevailing opinion in the historiography, a consequence of the development level and social structure of the Slovene population.[6] Most students of Slovene origin at the Austrian universities came from peasantry or lower to middle class urban population, whereas there were very few students coming from more wealthy urban population or *Wirtschaftsbürgertum* in the period 1848-1918.[7]

The layer of Slovene middle class elites which became the most important actors of Slovene political and cultural movement in the Habsburg Monarchy in the second half of the 19th century was thus very thin. However, they were largely formed thanks to education. In a little more than seven decades from about 1840 to the WWI, which is over three and a half generations, a sizable enough layer of educated people was formed, and it became an indispensable dynamic factor of the Slovene national mobilization and politics. Socially, it mainly originated from the peasantry and partly from the lower class urban social groups (civil servants, tradesmen and craftsmen). Its leaders and spokesman were lay intellectuals and the catholic clergy; wealthy entrepreneurs, tradesmen, land owners and officials only slowly joined them since the 1880s and 1890s. Since 1848 and in particular since the beginning of the constitutional era in 1861, nationality was the central issue of their politics. The guiding national-political principle referred to by the liberal and conservative Slovene leaders was a demand for the federalization of the Monarchy and the unification of the territory populated by the Slovene-speaking population in an autonomous unit within the Habsburg State. In practical political life, however, they strove for the equality of Slovene language in schools and offices and for establishing of Slovene cultural and educational institutions. At the end of the 19th century, when the tense national relations in the Monarchy required the Slovene political elites to modernize and broaden their national political ideas and horizons, they added the Yugoslav dimension to their traditional demands; the conservatives were looking for an alliance with Croatian parties and the liberals and social democrats also with Serbian political groups, as well as Serbs and even Bulgarians outside the Monarchy.

Both Slovene middle class parties that were eventually formed in the 1890s – the catholic and the liberal – were thus primarily based on national-political ideology.

6 Melik – Vodopivec, "Slovenski izobraženci in avstrijske visoke šole"., p. 273.

7 Cindrič, *Študenti s Kranjske na dunajski univerzi*, p. 368. In his comprehensive work based on the documents from the Vienna university archive, the author in general asserts that students of urban origin strongly prevailed (more than 60 %) among the students from Carniola (i.e. Slovenes and Germans) at the Vienna Alma Mater Rudolphini in the years 1848–1918, whereas only a solid fifth (21.9 %) of the students were of the peasantry origin. He, however, points out that students from urban areas mostly came from lower middle classes and *Bildungsbürgertum*, whereas there were only a very few students (a mere 1.8%) who came from *Wirtschaftsbürgertum*.

The differences among them were mainly dogmatic and political, depending on the views of potentials and prospects of the Slovene national movement as well as the role of the church and clergy in it, but they did not express conflicting social interests. It is true that catholic leaders appealed in the first place to the peasants and adjusted their political language to their demands. The liberal spokesmen and leaders, however, referred to the rising middle class and tried to reflect its aspirations and ambitions. They were more or less all educated men (mainly lawyers, some of them graduates of philosophy and others doctors), graduated at the same or similar universities and in a majority poorly (or not at all) involved in economic or business activities. Their ideas about social and economic as well as political change and modernization were thus – despite the political and ideological differences – much more similar than they were ready to admit or even than it might seem at the first sight.[8]

The central figure of the Slovene politics and movement in the 1860s and 1870s was a veterinary surgeon Janez Bleiweis. He was a true conservative, but also an adherent of reforms and a realistic, practical man, brought up in the enlightenment and rationalist spirit, who persistently maintained that national prosperity and national autonomy could not be achieved without a firm social and economic basis. He was, however, at the same time persuaded that the territory with the Slovene speaking population should only slowly change its social and economic structure and in this sense only gradually industrialize because of the prevailing and modernized agriculture. He based this standpoint on the one side on the physiocratic image of a peasant (farmer) as the most important of the "productive states" and an indispensable element of social stability, and on the other side on quite a realistic fact that Slovenes, lacking capital and extended trade and industrial network, had little potential for their own industrial development. Thus, opening to foreign capital and faster economic and social change would accelerate Germanization and become a dangerous threat to the process of Slovene national emancipation.

In Bleiweis' opinion, economic and social processes should run simultaneously with the process of nation building and nationalization of the Slovene speaking population, maintaining the balance between different social and different ethnic groups, while the government and the State were supposed to keep watch over them and provide protection for the more vulnerable (in economic, social or national sense). Although since the 1860s he and his adherents agreed that the economy should get rid of the "old, traditional" chains and that liberal competition was an important incentive to economic development, they rejected the Austrian government's flirtation with liberal economic policy and accused

8 Peter Vodopivec, "Slovene Intellectuals' Response to Political and Social Modernisation in the Nineteenth and at the Beginning of the Twentieth Centuries", *Journal of the Society for Slovene Studies*, 23, 2001, No. 1-2, (published in October 2003), pp. 6-7.

the governments in Vienna of detrimentally supporting "large factory owners, large merchants and large capital."[9]

Bleiweis' liberal opponents loudly criticized his political and cultural conservatism, but at the same time shared his mistrust of a more radical social and economic change. They also maintained that "simple national-economic conditions" in the provinces populated by Slovene speaking population should be changed as soon as possible. In their opinion, this could be done in the first place by raising "national culture" and by providing "material assistance to the nation". Nevertheless, their social vision and ideas were no more modern than those of Bleiweis and his adherents, since they did not seek the future of Slovene society in a capitalist middle class transformation, but in the preservation of tradition, peasantry, and a slow-down of the impending social and economic changes. A writer, linguist and journalist Fran Levstik was a notorious free thinker and democrat owing to his national radicalism, his critical attitude towards the clergy, and his opposition to the opportunistic authoritarianism of the conservatives. However, he saw the Slovene future "in the brotherhood of Slavic nations" purified of any foreign element, in which there would be no room for an "example of a more developed and technologically more progressive (German) environment"; it would be based on the rural tradition and "a sort of primordial Slavic community" rooted in the language and the literature.[10] A poet and writer Josip Stritar was also a determined opponent of Bleiweis and Slovene conservatives, but in his social views, he was also their adherent. His unfinished story The Ninth Country, which was the first Slovene social utopia, features (partly ironically and partly seriously) an ideal Slovene society as a Slavic-Slovene rural collectivist democracy governed by solidarity and founded on the common ethnic origin and national harmony. Stritar's Slovene Ninth Country is thus an island surrounded only by sea and with no neighbours. It is an orderly landscape where farmers work during the day and sit to converse and read journals and books at night. They speak and write literary Slovene, adopt important decisions by a majority of adult (male) votes, and tolerantly and self critically solve mutual disagreements.[11]

An intermingling of liberal-progressive and conservative beliefs can also be found in the views of most other Slovene liberal politicians and educated men.[12] Since the 1860s – following the Czech model – they strived for systematic

9 Peter Vodopivec, "Socialni in gospodarski nazori Bleiweisovega kroga" (Social and Economic Views of the Bleiweis Circle), *O gospodarskih in socialnih nazorih na Slovenskem v 19. stoletju* (*On Economic and Social Views on Slovene Territory in the 19th Century)* (Ljubljana: Inštitut za novejšo zgodovino, 2006), pp. 131-150.

10 Dimitrij Rupel, *Svobodne besede* (*Free Words*), Koper: Lipa, 1976, p. 219,

11 Josip Stritar, "Deveta dežela" (The Ninth Country), *Zbrano delo 4*, (ed. France Koblar, Ljubljana: Državna založba Slovenije, 1954), pp. 305-38.

12 The question of how liberal Slovene liberals really were is of course a problem in itself. I use the designation as generally used in the Slovene historiography, although one may ask how justified it really was. The replacement of »liberals« with »freethinkers« or »progressives« seems even less persuasive.

establishing of local savings banks and Schulze-Delitsch type cooperatives, whose main purpose was to help small producers (craftsmen, tradesmen and bigger farmers) to get out of debts and to promote the "productivity of Slovene regions through all types of national efforts", as they put it. But they persistently rejected liberal capitalism and modern industrialization. In the 1870s and partly also in the 1880s, some of them even argued that the Slavs and Slovenes, if they wished to avoid the decay of their economies and social tensions caused by liberal capitalism and individualism, should take a different route to development than the Western Europe. In this respect, they idealized the Russian and South Slav agricultural collectivism and Russian craft cooperatives. They claimed that social tensions which followed the introduction of capitalist production in the rapidly developing Austrian provinces and the European West could be alleviated by stimulating an awareness of common interests, by forming family and craft cooperatives and even by "social ownership of people's labour, producing in the same areas of the economy", as Josip Sernec, a lawyer by profession and one of the founders of the liberal savings banks, put it in 1874.[13] Josip Vošnjak, another prominent liberal leader and a practicing doctor by profession, was a little more realistic, clearly rejecting the ideas that Russian and South Slav cooperatives could serve as a model for solving the problems of the indebted Slovene farmers. He proposed the indivisibility of the farmers' lands within the scope of a permanent farmer's home, which was supposed to ensure survival of the farming families. But in the mid-1880s, Vošnjak was also of the opinion that the so called progress and the 19th century technical inventions had not increased general prosperity and "happiness", which was mostly due to liberal capitalism, which enabled the "unlimited accumulation of wealth" by individuals and caused the poverty in which "the present human race is writhing and moaning".[14]

As elsewhere in Cisleithania, the economic collapse of 1873 led to several years of stagnation also in the provinces populated by the Slovene speaking population. It was, however, not followed by a long-term depression or a more radical economic halt, which would influence to a greater extent the economic trends or deeply interfere with the existing socio-economic structure. In this sense, the crisis of 1873 had more tangible political, ideological and psychological than economic and social consequences also in Slovene regions, like elsewhere in the Monarchy. It strengthened the anti-liberal disposition on all sides, but simultaneously it reinforced the conviction that social and economic changes were inevitable and that the economy had to follow more decisively the path of modernization. While Bleiweis' views that physiocratically modernized agriculture and the peasantry should remain the economic and social basis of the

13 Josip Sernec, *Der Matreialismus und das Slaventhum*, Marburg 1874, pp. 24-25, 32-42.

14 Dr. Josip Vošnjak, "Ob agrarnem vprašanju" (Besides the Agrarian Issue), *Letopis Matice Slovenske za leto 1984* (*Yearbook of Matica Slovenska for 1984*), (Ljubljana: Matica Slovenska, 1885), pp. 72-81.

Slovene development still had numerous adherents in the Slovene political and educated elites even in the 1880s and 1890s, voices raised after the crisis arguing that capitalism and "large factories" were inevitably also the Slovene future, unless the Slovenes wanted to lag even more behind the faster developing Austrian and Western European regions.

The ideas of what should be done in practice were, however, unclear and uncertain. The widespread net of Catholic Raiffeisen type cooperatives, established at the end of the 19th and the beginning of the 20th century, was of major significance, as they helped prevent the break-up of agriculture and the peasantry burdened with debts. At the same time, the mobilized personal savings for investment in agriculture and business provided useful economic education and trained the farmers and small producers in organizational and managerial skills. But its main goal was still modernization in the frames of the existing social and economic structure and not its gradual change. The first successful Slovene commercial bank investing to a greater extent into business and industry was founded only in 1900 on the initiative of the liberal leader Ivan Hribar. As it was established with the backing from the Czech *Živnostenska banka,* its leading banking staff was Czech. Also Slovene students studying in Prague were under the strong influence of the Czech and Massaryk's ideas. At the beginning of the 20th century, they claimed that the main task of the nationally conscious educated classes was to broaden the cultural horizons and social conditions of the population. Some of them founded a Business Party in 1906, which however folded two years later as it failed to find an adequate political and social support.

Several generations of Slovene students of law, philosophy, medicine, natural and technical sciences who studied at the Austrian universities in the second half of the 19th century and before the WWI, mentioned in their correspondences, memoirs and autobiographies various professors who had permanently influenced their professional orientations and work. Although there has so far been no systematic overview or any detailed historiography assessment of these influences, some conclusions can be made on the basis of the existing data. Apparently, under the influence of the experience gained during their studies at Austrian university centres and their contacts with the prominent representatives of the Austrian scientific and cultural milieu, young Slovene educated elites formed not only their own political and literary ideologies, but also Slovene scientific literature and terminology. In the area of civics and national economy, they were mainly influenced by Lorenz Stein, Albert Schäffle and the representatives of the Vienna school of history. The social reformists – from a more liberal Josip Vošnjak to a Christian socialist Janez Evangelist Krek – were under the influence of Karl von Vogelsang. The foundations of Slovene natural sciences were laid by a generation of Slovene students who studied at the Alma mater Rudoplhina. Art historians were particularly affected by Max Dvorak, whereas Slovene architects Jože Plečnik, Maks Fabiani and Ivan Jager were all students of Otto Wagner.

And finally, at the beginning of the 20th century, a circle of young educated men prospered in Slovene politics, who embraced the ideas of Massaryk and his circle during their studies in Prague and who tried to implement these ideas also in the Slovene political life.

In the second half of the 19th century, Slovene educated elites thus succeeded in establishing the most important cultural institutions, newspapers, scientific and cultural journals, societies and a widely used literary language with its own technical and scientific terminology. Slovene cultural development advanced substantially and the cultural activities and institutions became the central dynamic factor of the nation building process. Thanks to the spread of literacy and education, also reading become a popular pastime, which by increasing number of people turning to Slovene newspapers and books accelerated the process of nationalization and national integration. By the end of the 19th century, Modernism had – despite the opposition of the conservatives – made its way into Slovene art, architecture and also literature, which continued to be the dominant form of artistic expression. In the scientific work, there were more opportunities in history, linguistics, law and social sciences than in natural sciences, medicine and technical studies, mostly because of the lack of adequate institutions and university. Nevertheless, the cultural changes experienced by the Slovene speaking population in the second half of the 19th century and before the WWI were much more fundamental and far-reaching than the social and economic ones. National aspirations of the educated elites and their pragmatic focusing on the nationality, which had doubtlessly a positive, stimulating impact on cultural development, became a troubling obstacle to a faster social and economic change. Although the falling number of people recorded as Slovene speaking in Styria and Carinthia by the Austrian statistics was understood as a dangerous threat, it was at the same time used by political and educated elites as an argument against faster social and economic change and liberal ideas of the German and Italian speaking middle classes.

Before the WWI, the Slovene educated elites were thus much more successful in their national emancipation endeavours than in creating a more favourable and adequate environment for a faster social and economic change and modernization. They were in this sense – according to the Austrian and German social historians – not much different from the educated elites elsewhere in the Central Europe and the German Empire. "The educated middle classes focusing on a career in public service were in the Central Europe a unique functional elite (*Funktionselite*)," maintained a German social historian Hans Ulrich Wehler, "different from the union of the nobility, the city and Oxbridge in Great Britain and different from the union of the great bourgeoisie, nobility and the graduates of Grand Ecoles in France".[15] Without doubt, schools, educational institutions

15 Hans Ulrich Wehler, Wie *bürgerlich war das Deutsche Kaiserrreich?, Aus der Geschichte lernen?* (München: C.H, Beck, 1988), p. 184.

and universities had a central role in the process of the formation of the Slovene educated middle classes (*Bildungsbürgerthum*) and consequently the process of the Slovene nation building in the second half of the 19th century. What was still missing was stronger middle class economic elite which would be able more resolutely to part with tradition and pave the way for modernity. In the Slovene case, the latter could only take place after the radical change of the political, national, cultural and economic environment after 1918 and the formation of the Yugoslav state.

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Peter Urbanitsch

The Creation of Higher Technical and Vocational Schools in Cisleithania in the last Decades of the 19th Century (with special regard to the South-Slav Lands). An Instrument for Modernizing the Austrian Educational System?

Dealing with the role of education and universities in the process of modernizing Central and South-Eastern European societies, it may seem a little bit odd to concentrate on technical and vocational schools instead of universities and other places of higher learning, as one would normally do. Yet, considering that the second half of the 19th century witnessed a hitherto unparalleled rise in technical knowledge and modern technology, it is certainly appropriate to draw one's attention to the aspect of formal education in industrial affairs.

Not that scholarly institutions for that purpose did not exist before the last third of the 19th century. As it is well known, the first Technical Institutes [*Polytechnisches Institut*] (comparable to the Technical Universities of today) on the realm of the Habsburg Monarchy were founded at the very beginning of the century, in 1806 in Prague, in 1815 in Vienna and later on similar institutions were established at other places.[1] Yet, in spite of the rapid development of commerce, crafts and industry in these days, institutions caring for a systematic education on a secondary level were sadly missing – although there were some institutions run by corporations or associations, cities and private people.[2] This lack became

1 Helmut Engelbrecht, *Geschichte des österreichischen Bildungswesens III: Von der frühen Aufklärung bis zum Vormärz* (Wien, 1984) p. 262; Hedwig Gollob, *Geschichte der Technischen Hochschule in Wien* (Wien, 1964).

2 Josef Schermaier, "Aspekte der Geschichte und Forschungsgeschichte des technisch-gewerblichen Unterrichtswesens in Österreich", in Elmar Lechner, Helmut Rumpler, Herbert Zdarzil (eds.), *Zur Geschichte des österreichischen Bildungswesens. Probleme und Perspektiven der Forschung* (Wien: Österreichische Akademie der Wissenschaften, phil.-hist. Klasse, Sitzungsberichte 587, 1992) pp. 259–277; Rudolf Frh. von Klimburg, *Die Entwicklung des gewerblichen Unterrichtswesens in Oesterreich* (Tübingen: Wiener Staatswissenschaftliche Studien 2/1, 1900), pp. 20–25. Hereafter Klimburg, *Die Entwicklung des gewerblichen Unterrichtswesens.*

intensely evident especially after the character of the old *Realschulen* (established as part of the educational reforms effected after 1848/49[3] and originally meant as an institution giving those aspiring to all kinds of industrial occupation a firm educational basis on a medium level at the most) was changed in 1867. Now they should prepare highly qualified pupils for the Technical Institutes, offering them at the same time some elements of humanistic *Bildung*, yet depriving the mass of potential pupils attending these schools of a more practical instruction needed for their future professional careers.[4] In addition to this didactic change, it became increasingly apparent in the late sixties and early seventies that Austrian industrial products lacked both the technical maturity and the artistic finesse of comparable items produced in Western Europe, as could be seen for example at the various World Trade Exhibitions.[5]

Indirectly it was the Viennese Exhibition of 1873[6] which sounded the starting shot for the development of a system of technical schools run by the state. More than one year before the Exhibition opened, a meeting was convened in January 1872 by the then Minister of Education, Carl von Stremayr, and attended by representatives of the Ministry of Education (*Ministerium für Cultus und Unterricht*), the Ministry of Trade and Commerce (*Ministerium für Handel und Volkswirtschaft*) and some experts, among them Wilhelm Schwarz-Senborn, who headed the committee in charge of the preparation of the World Exhibition. He proposed the creation of an industrial museum (following the example of London's South Kensington Museum) equipped with exhibits from the Viennese Exhibition which hopefully would be left back by many countries and which should then serve as a model for the practical education of Austrian producers.[7] In the end nothing came of this plan, but the idea of a more intense advancement and promotion of technical education as such, also discussed at that meeting, was from then onwards never to disappear from the official agenda.

It was Carl Jelinek, a civil servant at the Ministry of Education, who immediately after the meeting of 1872 came up with the idea that in analogy to the schooling system as such, technical education run by the state should

3 For a thorough discussion of the plans of the reformers and their subsequent implementation – which fell somewhat short of what was originally intended – see Peter Wozniak, "The Organizational Outline of the Gymnasia and Technical Schools in Austria and the Beginning of Modern Educational Reform in the Habsburg Empire", in Sonja Rinofner-Kreidl (ed.), *Zwischen Orientierung und Krise. Zum Umgang mit Wissen in der Moderne* (Wien–Köln–Weimar: Studien zur Moderne 2, 1998), pp. 71–107.

4 Armand Frh. von Dumreicher, *Ueber die Aufgaben der Unterrichtspolitik im Industriestaate Oesterreich* (Wien, 1881), p. 5. Hereafter Dumreicher, *Ueber die Aufgaben der Unterrichtspolitik.*

5 Ulrike Felber, Elke Krasny, Christian Rapp, *Smart exports. Österreich auf den Weltausstellungen 1851–2000* (Wien, 2000).

6 Jutta Pemsel, *Die Wiener Weltausstellung von 1873. Das gründerzeitliche Wien am Wendepunkt* (Wien, 1989).

7 Protokoll der Enquete-Sitzung vom 5. Februar 1872, Österreichisches Staatsarchiv, Allgemeines Verwaltungsarchiv (Wien), Ministerium für Cultus und Unterricht [=AVA, MCU], 16 A, Fasz. 3428 (Gewerbliche Lehranstalten in genere, –1880), Zl. ad 1545/72.

be offered on three different levels: primary, secondary and high – the last one already provided for by the Technical Institutes. Schools at the secondary level should be diversified according to different branches, and they should be open only to young people at the age of 14 or more who had already frequented the lower classes of other secondary schools. These higher technical schools should be installed in all great centres of industrial activity and in all capital towns of the provinces, the *Länder.*[8] The memorandum by Jelinek was the basis Armand von Dumreicher, generally known as the "father of technical education" (*Vater des gewerblichen Schulwesens* or *organisierender Staatspädagoge*, as he was also called) could subsequently build upon.[9]

Although pride of place should therefore belong to Jelinek (a fact that is almost entirely forgotten) it was Dumreicher who in the years to come became the undisputed expert in this matter. He acquainted himself with the situation in various other states[10] and became more and more convinced that it was the duty of the state to make provisions for an adequate education in commercial and industrial matters, concentrating its efforts only around the Ministry of Education. Over this view he had to fight out some disputes with the Ministry of Trade and Commerce[11] – which claimed to have a voice in matters regarding the schooling of their clientele because it already subsidized a number of lower vocational schools and training shops – and also the Ministry of Finance – that naturally wanted to keep down expenditure of the state as low as possible. In order to rub in this point to the Ministry of Education it pointed out that according to the constitutional arrangements of the so-called *Dezemberverfassung* it was at least doubtful whether technical schools fell into the competence of the state at all or in that of the *Länder.*[12] Eventually the Ministry of Education produced a lengthy

8 Memorandum Jelinek vom 16. Februar 1872, ebd. Zl. 1864/72.

9 On Dumreicher see Adele Dumreicher, *Armand Frh. von Dumreicher, Skizzen zu seinem Lebensbild* (Meran, 1913); Ferdinand Bilger, „Armand Freiherr von Dumreicher", in *Neue Österreichische Biographie V* (Wien, 1928) 114–129; Gustav Grüner, „Armand Freiherr von Dumreicher. Eine Einführung in Leben und Werk des Schöpfers der österreichischen Staats-Gewerbeschule", in *Die Deutsche Berufs- und Fachschule 63* (1967), pp. 489–504.

10 See Armand Frh. von Dumreicher (ed.), *Über den französischen Nationalwohlstand als Werk der Erziehung. Studien über Geschichte und Organisation des künstlerischen und technischen Bildungswesens in Frankreich* (Wien, 1879).

11 Some Chambers of Commerce petitioned in favour of the Ministry of Trade and Commerce retaining its influence on the vocational schools because they argued that this Ministry would be in a better position to judge the situation of people directly concerned; Petitionen mehrerer Handelskammern an den Reichsrat, enthalten in AVA, MCU, 16 A, Fasz. 3428 (Gewerbliche Lehranstalten in genere, –1880), Zl. 38013/74.

12 Finanzministerium an MCU vom 21. Juni 1873, ebd. Zl. ad 8117/73. § 11 lit. i of the Gesetz vom 21. Dezember 1867, RGBl. Nr. 141, wodurch das Grundgesetz über die Reichsvertretung vom 26. Februar 1861 abgeändert wird, stipulates that only basic principles as to primary schools and *Gymnasien* (and universities) would fall into the realm of the state's legislation passed by the Reichsrat, implying that all other forms of schools belonged to the jurisdiction of the *Länder* or should be run by communal or private institutions. Since negotiations with the *Länder* did not yield the desired results (although there were some exceptions), the responsibility of the state was more or less tacitly accepted by everyone in the decades to come.

proposition to the Emperor, an *alleruntertänigster Vortrag*, as such a document is called in German, proposing the creation of a system of technical schools below the highest level of Technical Institutes, i.e. Technical Universities.[13] With minor alterations this proposition (drawn up mainly by Dumreicher himself), which the Emperor agreed to on 11 October 1875, was also published as a booklet of its own which was intended to inform the public at large about the new possibilities the state was to offer its inhabitants.[14]

Subsequently Dumreicher's system was refined and enlarged a bit, in its fully matured form it provided for various types of schools and forms of instruction, according to technical needs as well as to the educational background of the pupils. At the lowest level there were to be so-called *Handwerkerschulen* (created only after 1885), schools that could be attended by youngsters instead of the last years of the general primary schools. They offered a little bit more of practical instruction, but only as far as the most elementary techniques were concerned. Next to them were the so-called *Fortbildungsschulen* or vocational schools where young boys – and to a small degree also girls – who were already working in a job, usually in an apprenticeship or as unskilled labourers, were given some more theoretical information on their jobs. However, since the educational background of these youngsters was rather low at times, these courses were not infrequently used only as an additional possibility to teach them the basic elements of reading, writing and arithmetic. As these young people were already working, their instruction took place in the evenings or on Saturday and Sunday afternoons; no wonder that the results were not always as bright as outside experts and observers had expected and hoped for.

Unlike the *Fortbildungsschulen,* the higher types of industrial training schools were day-schools, keeping those attending busy for something between 33 and 39 hours per week. There were two different types of schools: one, the *Werkmeisterschule*, was meant for people, workers and artisans alike, who had already acquired some practical knowledge in their respective field of work and who were eager to expand their knowledge in more theoretical aspects of their job, so that this additional knowledge should eventually enable them to rise a bit on their professional career-ladder. Schools of this type lasted for three or four semesters, while the other type, the *höhere Gewerbeschule* or *höhere Fachschule für gewerbliche Hauptgruppen*, lasted for eight semesters. It included several branches that were in one way or another related to each other, thereby forming four main groups of industrial compounds: building trade, engineering industry, chemical industry, arts and crafts. At the end of the 19th century, a fifth branch, electrical engineering, became more and more important. As potential students were

13 Au. Vortrag des Ministers für Cultus und Unterricht vom 25. Juli 1875, AVA, MCU, 16 A, Fasz. 3428 (Gewerbliche Lehranstalten in genere, –1880), Zl. 16280/75.

14 "Exposé über die Organisation des gewerblichen Unterrichts in Oesterreich", in *Jahresbericht des k.k. Ministeriums für Cultus und Unterricht für 1875* (Wien, 1876).

required to have successfully completed the first four years of a secondary school (*Gymnasium, Realschule* or – in exceptional cases – even *Bürgerschule*) this type, the higher Technical School, aimed primarily at members of the middle-class, heirs to industrialists, future managers in big companies, civil engineers, master builders and so on, people who aspired for jobs which required qualifications slightly less than those obtained at the Technical Institutes, that is to say qualifications below university level. The *Fachschule für einzelne gewerbliche Zweige*, usually combined with training shops (*Lehrwerkstätten*), could either serve one particular branch of industry dominant in the place where such a school was situated, for example metalworking or woodworking, or it comprised several closely connected crafts, e.g. in the textile industry. Such schools conferred master's certificates (without the recipients having undergone practical apprenticeship in a workshop or firm). If two ore more *Fachschulen* were administratively united, usually plus *Werkmeisterschulen* and *Fortbildungsschulen*, such a complex was called *Staatsgewerbeschule*. Apart from directly instructing those who attended them, these *Staatsgewerbeschulen* were also intended to serve as example and model and as industrial centre for the entire region and they also served as training-camps for teachers working at the various *Fortbildungsschulen,* thereby passing on their expertise to other schools all over the country.[15] The whole system was topped by the so-called *Gewerbliche Zentralanstalten*, institutions which radiated to all lands of Cisleithania and even beyond. In the decade before the First World War, the following institutions belonged to this group: *Österreichisches Museum für Kunst und Industrie* in Vienna, *Kunstgewerbeschulen* in Vienna and Prague, *Technologisches Gewerbemuseum, Graphische Lehr- und Versuchsanstalt, Lehr- und Versuchsanstalt für Lederindustrie, Zentral-Spitzenkurs, Fachschule für Kunststickerei, Musterwerkstätte für Korbflechterei*, all in Vienna.[16]

One of the main ideas underlying the creation of an all-encompassing system of technical schools run by the state as envisaged by Dumreicher and his fellow companions at the Ministry of Education was the combination of theory and practice (with particular emphasis on theory, as befits an ardent advocate of the liberal creed in "*Besitz und Bildung*"). He justified this position with the following sentences: „*Alle Bildung strebt vom Volksboden weg und hält sich fast nur mehr in oberen Schichten; die wissenschaftlich und künstlerisch höchst stehenden Leiter moderner Werke sehen unter sich nur mechanisch arbeitende Handlanger. Eine so*

15 For a concise description of the system established by the Ministry of Education see Dumreicher, *Ueber die Aufgaben der Unterrichtspolitik*; Anhang A., *Grundzüge einer Organisation des gewerblichen Unterrichtswesens*, pp. 65–82.

16 Ernst Pliwa, "Die Entwicklung des gewerblichen Unterrichtswesens in Österreich während des letzten Dezenniums", in *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 24*, 1906, pp. 485–512, p. 491. Hereafter Pliwa, „Die Entwicklung des gewerblichen Unterrichtswesens"; Josef Schermaier, *Wirtschaftsförderung durch zentralstaatliche Bildungsmaßnahmen im Vielvölkerstaat Österreich* (Frankfurt am Main et. al., 1999), pp. 13–94. Herafter Schermaier, *Wirtschaftsförderung durch zentralstaatliche Bildungsmaßnahmen.*

naturwidrige Trennung von Kopf und Arm, eine solche Ausschließung der arbeitenden Classe vom geistigen Gehalte ihres eigenen Thuns läßt für die Concurrenzkraft des Gewerbewesens und die gesellschaftlichen Verhältnisse Oesterreichs das Ernsteste befürchten. Und da kann nur der Staat mit seiner Schule helfend eingreifen. Denn der einzelne Gewerbszweig ist bei dem heutigen Höhestand der Industrie nicht mehr in der Lage, unter seinen Mitgliedern die Traditionen des Handwerks voll und schulgerecht weiter zu führen, in der Art etwa, wie die Bauhütte des Mittelalters sich ihre Schule selber zog und den Arbeiter, den Steinmetz zum Baumeister, ja zum Künstler heranbildete".[17] But it was not only the simple workers who needed more insight into the theoretical aspects of what they were doing; future industrialists, managers and other members of the middle classes were also in need of a sound theoretical foundation. The curricula of the *Staatsgewerbeschulen* bear witness to these ambitions. Apart from subjects specific for various *Fachschulen* the students were taught in German (or Czech and Polish, respectively) language and literature, history and geography, chemistry, physics, geometry, algebra, drawing, accountancy, bill business and industrial legislation.[18] The schools were meant to be a technical gymnasium, so to speak. No wonder that at the labour market the graduates of these institutions were eagerly sought after and that most of them immediately found adequate jobs. An official controlling the *Fachschulen* for the textile industry confirmed in 1887 that "*mir ist auch keine Klage bekannt, dass die stattliche Zahl der Absolventen, welche jährlich diese Fachschulen verlassen, in der Praxis nicht Aufnahme gefunden hätten*".[19] Three years later, a similar judgement was passed when surveying the situation at technical departments.[20] In 1904, it was officially stated that only about 5 % of those having attended one of the various branches of a *Staatsgewerbeschule* did not work in a job which they had been trained for at these schools. Breaking down the results of this enquiry into more detail, it became apparent that – not surprisingly – students of a *Werkmeisterschule* did primarily serve the needs of local industry, roughly two thirds of these students finding jobs in smaller firms in the regions where these schools were located, whereas two thirds of graduates of a *höhere Fachschule* worked in bigger industrial establishments spread over all parts of Cisleithania and abroad as well.[21]

Impressive as the program developed by Dumreicher and the Ministry may have been and certainly was in theory, the realization somewhat lagged

17 These sentences were already contained in the Au. Vortrag vom 25. Juli 1875, quoted above (n. 13). The text is cited according to Dumreicher, *Ueber die Aufgaben der Unterrichtspolitik*, p. 18.

18 Ibid., pp. 95–98.

19 Franz Schmorranz, Inspektor für Textilfachschulen, an Ministerium für Cultus und Unterricht vom 8. Oktober 1887, AVA, MCU, 16 A, Fasz. 3429 (Gewerbliche Lehranstalten in genere, 1881–1889), Zl. 20457/1887.

20 See Schermaier, *Wirtschaftsförderung durch zentralstaatliche Bildungsmaßnahmen*, p. 121.

21 "Protokoll über die XLVII. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 2. März 1904", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 22*, 1904, pp. 184.

behind this grand design. Several reasons can be hold accountable for this, financial restrictions were certainly responsible for many a retardation in the implementation of the original program. Had Jelinek in his memorandum of 1872 pleaded for the establishment of higher technical schools in all capital towns of the provinces plus great industrial centres,[22] the Ministry in its proposition to the Emperor of 1875 had to cut down its demands. No doubt the economic crash of 1873 and its aftermath made itself felt. In addition to the already existing *Fachschulen* run by the state in Brünn (in Moravia), in Czernowitz (in the Bucovina) and in Bielitz-Biala (in Silesia), the Ministry now proposed the creation of only five other *Staatsgewerbeschulen*, namely in Vienna, Prague (Bohemia), Reichenberg (also in Bohemia), Graz (Styria) and Salzburg.[23] Other *Fachschulen* were to follow, if from a general point of view the necessity of such an establishment was evident and if financial means permitted to take such a step, as the Ministry of Finance did not grow tired of insisting once and again.

Although it was practised as a general rule that the cost (or at least substantial parts of it) for the erection of the school-building, its maintenance and the equipment had to be provided for by the town and to a lesser degree also by the land where the school was to be set up, the Ministry of Education calculated in 1885 that a *Staatsgewerbeschule* would cost the treasury about fl. 20,000 annually.[24] Therefore the creation of a comprehensive and all-inclusive net of technical schools could be realized only gradually. Nevertheless, by the end of the 19th century, there were 16 *Staatsgewerbeschulen* (8 of them had *höhere Gewerbeschulen*, the others only various kinds of *Werkmeisterschulen, gewerbliche Fortbildungsschulen* and several special courses) and 96 *Fachschulen für einzelne gewerbliche Zweige*: 14 for lace-working, 31 for weaving and knitting, 30 for wood- and stone-working, 6 for ceramic and glass-industry, 10 for metalworking and 5 for other specific kinds of industry (for example, the production of musical instruments).[25] The cost for these schools (together with the *Gewerbliche Zentralanstalten,* the *Handwerkerschulen* and *allgemeine Zeichenschulen* run by the state) amounted to almost 6 million crowns (which corresponds to 3 million fl.) in 1898 and 6,06 million crowns (=3,03 million fl.) in 1899.[26] Of course, the costs for individual schools differed greatly: in 1899 the *Staatsgewerbeschule* in Prague needed 102,800 fl., the one in Czernowitz only 37,000 fl., for the school for lace-working in Cles (in the southern part of Tyrol) the state had to afford

22 Memorandum Jelinek vom 16. Februar 1872, AVA, MCU, 16 A, Fasz. 3428 (Gewerbliche Lehranstalten in genere, –1880), Zl. 1864/72.

23 Au. Vortrag des Ministers für Cultus und Unterricht vom 25. Juli 1875, ebd. Zl. 16280/75.

24 Ministerium für Cultus und Unterricht an Finanzministerium vom 30. Juni 1885, AVA, MCU, 16 A, Fasz. 3429 (Gewerbliche Lehranstalten in genere, 1881–1889), Zl. 10335/1885.

25 "Frequenz der gewerblichen Lehranstalten zu Beginn des Wintersemester 1898/99", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 17,* 1899, pp. 147–156.

26 "Protokoll über die XLIV. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 5. December 1901", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 20,* 1902, p. 144.

only 730 fl., in contrast to 26,500 fl. for the school for metalworking in Steyr (in Upper Austria).[27]

Apart from financial restrictions, there is another reason responsible for the rather slow increase in numbers of industrial schools in the first years after the initiation of the new system: the fact that parents preferred to send their children to the already existing and well established secondary schools, the *Gymnasia* and *Realschulen*, even if they aspired for their offspring a career in industry, trade and economics. Partly as a result of such an attitude, but for many other reasons as well, the number of students in secondary schools was rising year by year. For example in 1879/80, 19,400 young people attended secondary schools in Bohemia, whereas in the three *Fachschulen* in Prague, Reichenberg and Pilsen there were together not more than 270 pupils.[28] The number of those attending all the *Staatsgewerbeschulen* that existed in Austria in 1880 amounted to 728 only.[29]

This situation was criticized by an official at the Ministry of Education who bluntly stated that "*der Staat erzieht somit jährlich zu viele Menschen, die nur schreiben und sprechen und zu wenig solche, die arbeiten können*" and he warned that if there were too many graduates of secondary schools (and subsequently of universities), these members of the educated classes would only become jobless – and therefore dangerous – "intellectual proletarians".[30] No doubt, reminiscences of the years before 1848 and the role played by these "intellectual proletarians" were at the bottom of this argument.[31] In accordance with this line of argumentation, the Ministry even issued an ordinance to the headmasters of secondary schools the tenor of which was for the headmasters to discourage future pupils whose family background and abilities made it seem likely that they would eventually end up in business, from attending secondary schools and to recommend their parents instead to send their kids to higher technical schools.[32] Such an attitude – which was regarded by many as anti-intellectual, an outcome of the conservative turn in Austrian politics in the early eighties,[33] but which in truth was focussing on the more practical aspects of everyday life – was prevalent among many circles in these days. Even Dumreicher, obviously no friend of the Conservatives, argued that popular prejudices in favour of "the pen over the

27 Klimburg, *Die Entwicklung des gewerblichen Unterrichtswesens*, p. 187.

28 Promemoria des Landesschulinspectors für Böhmen Heinrich Schramm vom 26. Juli 1880, AVA, MCU, 16 A, Fasz. 3428 (Gewerbliche Lehranstalten in genere,–1880), ad Zl. 12050/1880.

29 Schermaier, *Wirtschaftsförderung durch zentralstaatliche Bildungsmaßnahmen*, p. 306.

30 Einsichtsakt des Ministeriums für Cultus und Unterricht vom 30. Juli 1880, AVA, MCU, 16 A, Fasz. 3428 (Gewerbliche Lehranstalten in genere,–1880), ad Zl. 12050/1880.

31 See Waltraud Heindl, *Gehorsame Rebellen. Bürokratie und Beamte in Österreich 1780–1848* (Wien: Studien zu Politik und Verwaltung 36, 1990).

32 Erlaß des Ministeriums für Cultus und Unterricht vom 20. August 1880, AVA, MCU, 16 A, Fasz. 3428 (Gewerbliche Lehranstalten in genere,–1880), Zl. 12050/1880, also published in Dumreicher, *Ueber die Aufgaben der Unterrichtspolitik*, *Anhang C*, pp. 99–105.

33 Gary B. Cohen, *Education and Middle-Class Society in Imperial Austria 1848–1918* (West Lafayette, 1996), pp. 95–119. Hereafter Cohen, *Education and Middle-Class Society.*

tool" harked back to "die Zeit der absoluten Monarchie mit ihrer allmächtigen Bürokratie, in der das kleinste Amt über ein viel höheres Prestige verfügte als die produktivste Werkstätte" and he advocated to "encourage young people from handicraft, small manufacturing and farming backgrounds to pursue vocational training and remain in those economic sectors"[34]. As late as in the last years of the existence of the Habsburg Monarchy, Eugen Ehrlich, an eminent sociologist teaching at the University of Czernowitz, followed suit when – talking about the situation in the Bukovina – he wrote: "Hofräte sind gut, zuerst aber brauchen wir Bauern".[35] Yet, in the eighties, the move of the Ministry did not prove very successful, the number of students at secondary schools continued to rise for quite a while. Headmasters reported that they could not effectively comply with the wishes of the Ministry as long as the number of higher technical schools was not sufficient and, what was more important, not more or less evenly distributed all over the country.[36]

In fact, the comparatively low number of students of technical schools in the early years of the state's program owes more to the uneven distribution of such schools than to the possibly scant interest on the part of the people actually concerned. Dumreicher may have been exaggerating but there was certainly more than a grain of truth in it when he wrote that the necessity for technical schools producing technicians of a medium level can be read off the fact that in many industrial plants in Austria these posts were filled by foreigners and that on the other hand "*Hunderte von Österreichern ins Ausland gehen, um dort jenes berufliche Wissen zu erwerben, das ihnen die Heimat zu bieten unterlassen hat*" and he continued, specifically referring to the situation in northern Bohemia, that the population in question "*wünsche aus der geistigen Abhängigkeit vom Ausland herauszukommen*".[37] In the end the number of graduates of higher technical schools slowly but gradually increased: in 1887/88 it amounted to 2,763 for the *Staatsgewerbeschulen* and 5,710 for the *Fachschulen* for individual branches, in 1898/99 the *Staatsgewerbeschulen* were attended by 5,252 students (not counting the *gewerbliche Fortbildungsschulen* and special courses), the *Fachschulen für einzelne gewerbliche Zweige* by 4,090 (again without *gewerbliche Fortbildungsschulen* and special courses), the corresponding numbers for 1912/13 are 7,619 (20,101, if taken together all categories of people attending) for the *Staatsgewerbeschulen* and 31,748 for the *Fachschulen für einzelne gewerbliche Zweige* (again taken all

34 Dumreicher, *Ueber die Aufgaben der Unterrichtspolitik*, p. 46.; Cohen, *Education and Middle-Class Society*, p. 101.

35 Eugen Ehrlich, *Die Aufgaben der Sozialpolitik im österreichischen Osten, insbesondere in der Bukowina mit besonderer Beleuchtung der Juden- und Bauernfragen* (Czernowitz, 1909), p. 17.

36 Ministerium für Cultus und Unterricht an Finanzministerium vom 30. Juni 1885, AVA, MCU, 16 A, Fasz. 3429 (Gewerbliche Lehranstalten in genere, 1881–1889), Zl. 10335/1885.

37 Au. Vortrag des Ministers für Cultus und Unterricht vom 25. Juli 1875, ebd., Fasz. 3428 (Gewerbliche Lehranstalten in genere,–1880), Zl. 16280/75.

together).[38] In some cases, prospective pupils even had to be rejected because of the lack of space in individual schools. Reasons for this continuous increase may be found on the one hand in a greater social appreciation of graduates from a *Fachschule* by granting them among others the right of *Einjährig-Freiwillige*,[39] on the other hand in various reforms of the educational profile of the schools and a considerable rise in their number effected after 1905 (see below). Yet, the great rush that was experienced in the years before the First World War was also attributed by some to a change of mentality on the part of the parents: whereas in former times parents interested in a practical education preferred the old type of *Realschule* instead of sending them to a *Staatsgewerbeschule*, they now thought of sending their children to this institution if they were not good enough to pass a *Gymnasium*, but the introduction of a kind of entry-exam soon separated the chaff from the wheat in the *Staatsgewerbeschulen* as well.

As already mentioned, the geographical distribution of the higher technical schools was a very uneven one at the beginning. In 1883 there were *Staatsgewerbeschulen* in Vienna, Salzburg, Graz, Prague, Pilsen, Reichenberg, Brünn, Bielitz, Krakau, Czernowitz, and the *Fachschulen* for individual branches were also concentrated mainly in the northern areas of Cisleithania. This changed a little in later years. Although before the turn of the century the *Staatsgewerbeschulen* were still concentrated in the north (out of 18 existing in Cisleithania, four of them were situated in Bohemia, two in Moravia and one in Silesia) the number of *Fachschulen* had risen considerably in other parts of the state[40]. This was not so much the result of financial considerations, but was primarily due to a change in the philosophy of what these technical schools should be good for. This in turn had consequences for the decision where such schools should be established. Dumreicher and his colleagues at the Ministry were decidedly of the opinion that the main function of technical schools was to support and encourage existing industries, not to modernize time-honoured but outdated forms of cottage industry [*Hausindustrie*] or to create new branches of industries in areas where they did not already have a sound basis and where they were alien to the local population. They opposed any endeavours to create new industries

38 Klimburg, *Die Entwicklung des gewerblichen Unterrichtswesens*, p. 146; „Frequenz der gewerblichen Lehranstalten zu Beginn des Wintersemester 1898/99", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 17*, 1899, pp. 147–156; Schermaier, *Wirtschaftsförderung durch zentralstaatliche Bildungsmaßnahmen*, p. 306.; „Frequenz sämtlicher gewerblichen Lehranstalten [...] im Schuljahre 1912/13", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 32*, 1914, p. 378.

39 "Erlaß des Ministers für Cultus und Unterricht vom 31. März 1885, Zl. 4631/1885", cited in Gustav Grüner (ed.), *Quellen und Dokumente zur Entwicklung der österreichischen Staats-Gewerbeschulen. Ein Beitrag zur Geschichte der berufsbildenden höheren Schulen Österreichs und einschlägiger Schulen osteuropäischer Staaten* (Köln–Wien, 1987), p. 150.

40 "Frequenz der gewerblichen Lehranstalten zu Beginn des Wintersemester 1898/99", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 17*, 1899, pp. 147–156.

or bolster up the cottage industry "on humanitarian grounds", as they said, that is the setting-up of new industries as a means to overcome the difficult economic situation of a region. They argued that the hoped-for positive results would show – if ever – only in the distant future. Dumreicher wrote in 1881: *"Man muß sich den Unterschied klar machen zwischen industriellen und humanitären Zwecken. Wird dies unterlassen, so entsteht die Gefahr, dass trotz großer, nominell dem gewerblichen Bildungswesen gewidmeter Summen eine Reihe lebensfähiger, aber der didactischen Förderung bedürftiger Industrie der Bildungsinstitutionen entbehren muß, weil jene Summen von Unternehmungen verschlungen werden, die gar nicht unter den gewerbepolitischen Gesichtspunkt fallen, sondern dem Bereiche öffentlicher Mildthätigkeit angehören. Die Enttäuschung müßte dann eine doppelte werden: einmal würde nach einiger Zeit ein grelles Mißverhältnis constatirbar sein zwischen dem angeblich zur intellectuellen Hebung des Gewerbewesens gemachten Gesammtaufwand und dem fortschrittlichen Gewinn, welcher der Landesindustrie thatsächlich aus diesem Aufwand erwachsen ist, und andererseits würde man sich überzeugen, dass auch die humanitären Bestrebungen fehlgeschlagen haben, weil eben meist die von allgemeinen wirthschaftlichen Factoren bedingten Erwerbsverhältnisse einer Gegend durch den einzelnen, kleinen Factor der Fachschule nicht merklich geändert werden können. In jenen zahlreichen Fällen z.B., wo sich auf einem Gebiete der große Kampf der Maschine mit der Menschenhand vollzieht, werden der letzteren didactische Mittel nicht immer Hilfe bringen können. Oft mag die Natur des Productionszweiges es gestatten, durch Zuführung des künstlerischen Elements die Handarbeit in eine neue gesunde Entwicklung hineinzulenken; noch öfter wird die Einwirkung der Schule eine so minimale bleiben, dass ihre Gegner nicht einmal mit Recht behaupten dürfen, sie verlängere grausam die Agonie einer absterbenden Production."*[41]

Yet, this position, expression of a creed in unfettered laissez-faire liberalism – a position that was also backed by the *Central-Commission für Angelegenheiten des gewerblichen Unterrichts*[42] – encountered severe opposition from many quarters, especially from those regions and branches that suffered most from economic recession, but also from political representatives of the *Länder*, who with an eye on the material situation of the people and its socio-political consequences wanted a more decisive say in matters of promotion and improvement of the local economy. It is interesting to see that in the end Dumreicher's position did not prevail, schools "on humanitarian grounds" continued to exist up to the First World War. In a survey published in 1913 we read that among the *Fachschulen für einzelne gewerbliche Zweige* there were so-called *"Notstands- und*

41 Dumreicher, *Ueber die Aufgaben der Unterrichtspolitik*, p. 58.

42 Denkschrift über die Grundsätze für die Errichtung gewerblicher Fachlehranstalten, verabschiedet in der Sitzung der Central-Commission für Angelegenheiten des gewerblichen Unterrichts vom 31. Jänner 1882, AVA, MCU 16 A, Fasz. 3429 (gewerbliche Lehranstalten in genere 1881–1889), Zl. 1823/1882.

Erwerbsschulen, besonders für Spitzenarbeiten und für Korbflechterei, welche die gebrauchsfertigen Erzeugnisse ihrer Schüler und der Absolventen verkaufen und dadurch für die hausindustrielle Bevölkerung in manchen verarmten Gegenden Verdienstmöglichkeiten schaffen."[43]

The debate on the character of technical and vocational schools was not devoid of constitutional and political overtones: the question of centralism versus federalism was voiced just as was the nationality problem or the question which governmental agency should exercise jurisdiction over technical education: if the field of technical education was to be given over to the *Länder*, the Chamber of Trade and Commerce in Graz suspected that nationalistic points of view would gain the upper hand on strictly economic ones. Others, also inspired by liberal ideas, held similar views.[44] Under the auspices of a new Minister of Education, the Ministry was at first not unsympathetic to the idea of giving the *Länder* more influence in determining matters as to technical schools, yet in the end nothing came of it, because only a minority of *Länder* actually pushed the idea.[45] Only three years before this discussion reached its apex, the *Ministerium für Cultus und Unterricht* won a long-standing battle with the *Handelsministerium* over the jurisdiction of all technical and vocational schools, including the *Fortbildungsschulen* (which up to then had been under the authority of the latter Ministry and which were run and financed mainly by communities, associations or privates with only marginal subsidies provided for by the state). However, in order to grant those directly involved in economics continuous influence on matters pertaining to technical schools, a new advisory body was created, the *Central-Commission für Angelegenheiten des gewerblichen Unterrichts*, which consisted of representatives of the *Handelsministerium*, of various *Handelskammern* and of a number of industrialists and other experts and which had to give advice on all matters of some importance the Ministry wanted to enact.[46] In 1908, the jurisdiction over technical education was transferred to the newly created *Ministerium für öffentliche Arbeiten*, thus combining the "*didaktische Gewerbeförderung (gewerbliches Bildungswesen)*" with activities in the fields of "*technische und wirtschaftliche Gewerbeförderung*" (which so far had been administered by the *Handelsministerium*).[47]

43 Alfred Schappacher, *Gewerbliches Bildungswesen und Gewerbeförderung in Österreich* (Wien, 1913), p. 10.

44 Handels- und Gewerbekammer Graz an Ministerium für Cultus und Unterricht vom 18. März 1884, AVA, MCU 16 A, Fasz. 3429 (gewerbliche Lehranstalten in genere 1881–1889), Zl. 7175/1884; Handels- und Gewerbekammer Innsbruck an Ministerium für Cultus und Unterricht vom 6. Juni, Ebd. Zl. 11162/1884; and similar letters by various Chambers, ebd.

45 Ministerium für Cultus und Unterricht an Statthalterei Prag vom 11. Dezember 1885, ebd., Zl. 17722/1885; Referentenerinnerung vom Jänner 1886, ebd. Zl. 184/1886.

46 *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 1*, 1883, p. 32.

47 Gesetz vom 27. Juni 1908, RGBl. Nr. 123/1908; "Erlaß des Ministers für öffentliche Arbeiten an die gewerblichen Lehranstalten anläßlich der Aufnahme der Tätigkeit des Ministeriums", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 27* (1909), p. 6.

Uniting the competence for technical and vocational schools in the hands of the *Ministerium für Cultus und Unterricht* in 1883, Dumreicher – who had fought for this unification for many years – could have been content with what he had achieved. Yet the change in the person of the Minister and opposition to all ideas Paul Gautsch von Frankenthurn, a stern conservative, stood for, prompted Dumreicher, a champion of the liberal cause (and later on of the German national as well), to resign from his post at the Ministry in 1886.[48]

Under the new leadership pleas – coming from economically underdeveloped areas – for the establishing of technical schools run by the state and for subsidizing vocational schools run by towns or various corporations had now a greater chance to be successful. Among the beneficiaries of this change in policy was also the population in the south-Slav lands of Cisleithania. Up to the middle eighties, they could only fall back on the *Staatsgewerbeschule* in Graz; it was established as such in 1875, but numerous predecessors had existed before that date. It consisted of a *Werkmeisterschule* for building trade and one for arts and crafts plus an additional drawing-studio. Adjoined to it was a vocational school, a *Fortbildungsschule*. In its first year, 1876/77, the school was attended by 161 people, five years later, 1881/82, there were already 525 pupils, 212 in the daily *Werkmeisterschulen*, 313 in the *Fortbildungsschule*, where instruction took place only in the evenings and on Sunday. In its exposé of 1875 the Ministry (that is Dumreicher) hoped that the *Staatsgewerbeschule* in Graz would radiate well into the south Slav–Italian lands of Cisleithania and into the neighbouring regions of Hungary as well. In a certain way this expectation came true: of the total of 525 pupils in 1881/82 there were 348 coming from Styria, 19 from Carniola, 18 from Carinthia, 4 from the Küstenland and 2 from Dalmatia and there were also 17 from Croatia-Slavonia. As to their mother-tongue, 443 were Germans, 35 Slovenes, 8 Magyars and 5 Serbs and Croats. In 1893/94 the school was attended by 816 pupils; as a consequence of organizational changes this number fell in the following years, it ran up to between 600 und 700 until the beginning of the First World War.[49] The *Staatsgewerbeschule* in Graz served also as controlling and inspecting organisation for the *Fortbildungsschulen* in Carniola. At the same time, it also provided courses for teachers at *Fortbildungsschulen* in order to assure that the latest teaching methods should also become known to them.[50]

For many years there had been an Academy for nautical science and for commerce in Trieste, as was only natural in a place where commerce and

48 For his career after his retirement from the civil service – immediately afterwards he was made a member of Parliament representing the Chamber of Commerce of Klagenfurt until 1895 – see the literature mentioned in Fn. 9.

49 Schermaier, *Wirtschaftsförderung durch zentralstaatliche Bildungsmaßnahmen,* p. 213; *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 16,* 1897, pp. 60–65.

50 See e.g. the report of the headmaster of the Staatsgewerbeschule in Graz, C. Loužil, on his tour d'inspection in March and April 1881, AVA, MCU 16 A, Fasz. 3812 (gewerbliche Lehranstalten, Krain in genere), Zl. 6729/1881.

navigation played a major part in the city's economy. After several reorganisations, this institute was transformed to a *Staatsgewerbeschule* in 1887. It consisted of *höhere Fachschulen* for building trade and for mechanical engineering industry and of *Werkmeisterschulen* for arts and crafts and one for lace-making. In the last years of the 19th century, a special course on electrical engineering and another on shipbuilding was added. In addition to this there was also a *Fortbildungsschule*. The number of those attending the various types of schools rose from 654 in 1888/89 to 977 in 1894/95, and to 2012 in 1913/14.[51] It is noteworthy that among the *Staatsgewerbeschulen* existing in the southern parts of Cisleithania at the end of the 19th century only the one in Trieste had the status of a *höhere Gewerbeschule*. All the others were only *Werkmeisterschulen*, not meant for the education of top people.

In the nineties, a school of that type was also planned for Spalato (Split). It should consist of a *Werkmeisterschule* for building trade, for woodworking and – atypical for technical schools – of a commercial school. These plans – as well as those for *gewerbliche Fortbildungsschulen* in Zara (Zadar) and Ragusa (Dubrovnik) – were not realised at the time; Dalmatians interested in some form of higher education were given scholarships to attend the respective schools in Trieste or in Laibach (Ljubljana).[52] A *Fachschule für gewerbliches Zeichnen* was eventually established in Spalato, it was changed into a *Bau- und Kunsthandwerkerschule* in 1909, which in 1912/13 was composed of 10 different branches housing 882 students (more than half of them female).[53]

For a long time Carniola did not possess higher technical or vocational schools run by the state. Up to the early seventies there were several lower technical schools, run by towns or corporations, *„doch trügen einige weniger den Charakter von eigentlichen Gewerbeschulen als Wiederholungsschulen an sich [....] und bei ihren dürftigen Unterrichtsprogrammen und ihrer ganzen inneren Einrichtung [ließen sie kaum] eine erhebliche Einwirkung auf Hebung der Gewerbe erwarten*", one can read in an official document by the Ministry of Education, mentioning at the same time that it had subsidized the city of Laibach with the sum of 2,000 fl. for the extension of its Sunday-school (founded in 1856) to a *gewerbliche Fortbildungsschule* in 1872.[54] In the following years, these *Fortbildungsschulen* were subsidized and in turn also controlled by the appropriate organs of the Ministry of Education. Reading the reports of the inspectors, one gets the impression that

51 Schermaier, *Wirtschaftsförderung durch zentralstaatliche Bildungsmaßnahmen,* pp. 258, 262–265.

52 "Protokoll über die XXXIX. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 24. April 1895", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 14*, 1895, p. 51.

53 *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 27*, 1909, p. 381; Ibid., 32, 1914, p. 325.

54 Ministerium für Cultus und Unterricht an Handelsministerium vom 10. Jänner 1873, AVA, MCU 16 A, Fasz. 3812 (gewerbliche Lehranstalten, Krain in genere), Zl. 15241/1873.

the level of instruction and the results did indeed improve over the years, even if at times some inspectors bemoaned the poor knowledge of the apprentices, so that lessons had primarily to be confined to teach them how to read and write.[55] The pupils at these *Fortbildungsschulen* were a very mixed bag indeed: in 1881, 66 apprentices registered for the *Fortbildungsschule* at Rudolfswert (Novo Mesto), 44 of them kept on to it until the end of the year, they belonged to 19 different professions (with shoemakers, commercial clerks and bakers in the majority), 2 had German, the other 42 Slovene as their mother-tongue[56]. In 1885, there were five *Fortbildungsschulen* subsidized by the state in Carniola, however, the sums offered to them by the government were rather small: 400 fl. for the school in Rudolfswert already mentioned, the same amount for the one in Krainburg (Kranj), 150 fl. were given to the one in Neumarktl (Tržič), 100 fl. to the one in Gottschee (Kočevje). Only the school in Laibach got 2,000 fl. (in addition to that, the city contributed 500 fl. and the land 380 fl. to its expenses).[57]

The *Fortbildungsschule* in Gottschee was connected with a *Fachschule* for woodworking, opened in December 1882 with only 9 students and financed mainly by the *Deutsche Schulverein* and private donations, so that no school fees had to be asked for, fees that in any case could not have been paid by the students who were very poor.[58] Four years after the school had started its activities, the number of students rose to 24. It was reported that the curriculum usually assigned to this type of school had to be adapted to local circumstances, partly because the students who mostly could not afford to live in town and therefore had to commute each day for quite a while were simply overstrained by the sheer amount of class hours, partly because it seemed necessary to accommodate a bit to the tastes and needs of the population on whose well-meaning the success of the school depended to a certain degree. When the first graduates had left school the idea came up to form a workers-association in connection with the school in order to enable the graduates to continue their work and to give them an opportunity to earn money, since their chance on the free labour-market was rather bleak.[59]

55 Inspektionsbericht des Julius Ritter von Siegl über die Fortbildungsschule Rudolfswert vom 23. Mai 1886, AVA, MCU 16 A, Fasz. 3822 (gewerbliche Lehranstalten Krain, Rudolfswert), Zl. 12075/1886.

56 The Fortbildungsschule came into existence in 1873, like many others of this type it was attached to some higher school, in this case to the k.k. Staats-Obergymnasium. Jahresbericht der Fortbildungsschule Rudolfswert für das Schuljahr 1880/81 vom 21. Juli 1881, AVA, MCU 16 B1, Fasz. 3822 (gewerbliche Lehranstalten Krain, Rudolfswert), Zl. 12530/1881.

57 Inspektionsbericht des Julius Ritter von Siegl über die Fortbildungsschulen in Krain vom 19. März 1886, AVA, MCU 16 A, Fasz. 3812 (gewerbliche Lehranstalten Krain, in genere), Zl. 6631/1886; see also ebd. Fasz. 3813 (gewerbliche Lehranstalten, Krain in genere), Zl. 19122/1883.

58 Jahresbericht der Fachschule für Holzindustrie in Gottschee für 1882/83, AVA, MCU 16 A1, Fasz. 3815 (gewerbliche Lehranstalten Krain, Gottschee), Zl. 12667/1884.

59 Jahresbericht der Fachschule für Holzindustrie in Gottschee für 1885/86, ebd., Zl. 23479/1886.

Discussing the takeover of this privately run institution, which was threatened by being closed down (the *Deutsche Schulverein* announced to withdraw the subsidies for the school because instruction in German was gradually being replaced by that in the Slovene language), into complete state administration in 1896, an official of the Ministry of Trade and Commerce recommended this takeover because the population in this area was very poor and everything should be done to avert emigration;[60] the takeover eventually took place in 1898. When only a couple of years later the results of the technical schools as regards the fate of their graduates was assessed, the author of this assessment reported that most of the workers that had attended the *Fachschule* at Gottschee had found jobs either at home or more frequently abroad, many of them had gone to North America where they earned about three times as much as in Austria[61].

Up to the eighties, the *Fachschule für Holzindustrie* in Gottschee (in 1906 transformed into a *Fachschule für Tischlerei*) and the *Fachschule für Spitzenklöppelei* in Idria, both of rather local importance and influence, were the only higher technical schools in Carniola. There had been various attempts to create such schools for different crafts (basketwork, woodwork, ironwork, leather dressing) earlier on, but they were generally considered as *Notstandsschulen*, meant to alleviate the dismal economic situation of a specific segment of the population.[62] Since the prerequisites for higher schools being successful were wanting in the eyes of the Ministry (being under the influence of Dumreichers thoughts in these matters) no such school was eventually set up, itinerant teachers (which were of course much cheaper) were sent to these regions instead. In some cases, their activities proved highly successful and by raising the general qualification of the populace, the basis was laid for future developments.[63]

In 1886, both the Chamber of Trade and Commerce in Laibach and the *Landesausschuss*, the highest body of the autonomous administration, applied again for the establishment of a *Fachschule*, this time a *Fachschule für Holzindustrie* and a *Fachschule für holzverarbeitende Hausindustrie, Korbflechterei und Weidenkultur,* to be situated in Laibach, the centre and heart of the *Land*, as Andrej Winkler, the only Slovene *Landespräsident* of Carniola, wrote when backing the motion. In promoting their demand, the Carniolan officials also used arguments connected with the bad general economic situation in the

60 "Protokoll über die XLI. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 17. December 1896", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 15*, 1896, p. 153.

61 Klimburg, *Die Entwicklung des gewerblichen Unterrichtswesens,* p. 228.

62 Krainer Landesregierung an Handelsministerium vom 21. Dezember 1881, AVA, MCU 16 A, Fasz. 3812 (gewerbliche Lehranstalten Krain, in genere), Zl. 711/1882.

63 See "Protokoll über die XXXV. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 10. April 1894", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 13*, 1894; "Protokoll über die XLI. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 17. December 1896" in *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 15*, 1896, p.155.

land, stressing the positive effects the production of wooden items and their subsequent export would have on the economy as a whole, given the decline in other economic sectors, and for the people at large.[64] Now the officials in Vienna were in favour of creating a *Fachschule* in Laibach, Wilhelm Exner, inspector for technical schools, explicitly stated that so far "*Krain mit gewerblichen Schulen verhältnismäßig wenig bedacht wurde*".[65] In 1888, the *Fachschulen* took up their activities, but instead of the one for wooden cottage industry and basketwork a *Fachschule für Kunststickerei und Spitzennäherei* was established, both were much sought after immediately.

Only a few years later, the *Landesausschuss* petitioned again, this time for a *mechanisch-technische Werkmeisterschule*, a school for mechanical engineering. After the authorities had examined the situation and had come to the conviction that the industrial situation would merit the establishment of a school of that kind (although this opinion was not shared by everybody), the Ministry decided to go along with the plans to create a *Staatsgewerbeschule* in Laibach, uniting the two already existing *Fachschulen* for woodworking and for lace-working with the newly planned institution.[66] Deliberations between the Ministry, the city of Laibach and the Landtag as to the financial share of each institution and to technical details (the building site was hotly debated among various quarters in Laibach itself) delayed the project for quite a while, but in November 1911 the new *Staatsgewerbeschule* opened its doors.[67]

By the time the new *Staatsgewerbeschule* in Laibach was agreed upon, a number of other towns pleaded to create a new *Staatsgewerbeschule* in their cities (national considerations – that is the question of the language of instruction – playing a not insignificant part in these demands). The Ministry treated such demands with utmost reserve, partly because of financial consideration, partly, however, because a thorough reform of the entire system of technical and vocational education was already under consideration. The upshot of these deliberations was that no new *höhere Gewerbeschulen* should be created in the foreseeable future but existing schools should be diversified and specialized. Many participants had complained that the instruction offered by technical schools would no longer fit the actual demands, it was regarded as too theoretical

64 Krainer Landesregierung an Ministerium für Cultus und Unterricht vom 17. November 1886, AVA, MCU 16 A, Fasz. 3812 (gewerbliche Lehranstalten, Fachschule Laibach), Zl. 22865/1886.

65 Referentenerinnerung des Ministeriums für Cultus und Unterricht, Ebd.

66 "Protokoll über die XXXVIII. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 23. April 1895", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 14*, 1895, pp. 40–43. As the creation of the Staatsgewerbeschule took some time the two Fachschulen were combined in a single Kunstgewerbliche Fachschule in 1901; "Protokoll über die XLV. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 5. December 1901", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 20*, 1902, p. 225.

67 J. Šubic – J. Foerster, "Die k. k. Staatsgewerbeschule in Laibach", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 32*, 1914, pp. 228–247.

and too devoid of practical experience and training (which was even worse since some of these schools served as substitute for an apprenticeship) or that these schools offered a kind of education which prompted graduates not to return to their original place of work but to seek a "better" job, thus being lost for a more simple occupation. The main thrust of complaints was aimed at the *Handwerkerschulen* and the *Fachschulen für einzelne gewerbliche Zweige*, which did not come up to the expectations originally placed on them, namely to support the members of small trade and small scale industries. Therefore a new type of schools was created, the so called *Bauhandwerkerschule*, which was supposed to give priority to practical supplementary education instead of basic instruction.[68] With the transfer of utmost responsibility from the *Ministerium für Cultus und Unterricht* to the *Ministerium für öffentliche Arbeiten* (in 1908), the trend towards an education laying more emphasis to practical aspects of the graduates' later employment grew even stronger. For example, the *höhere Gewerbeschule bautechnischer Richtung* was transformed into a *Baufachschule*, in which the students were obliged, at least "*eine sechsmonatige Sommerbaupraxis durchzumachen, die aber keine Bureaupraxis sein darf, sondern tatsächlich auf dem Bauplatz abgeleistet werden muß*".[69] Contrary to the intentions voiced a decade before, the number of *Staatsgewerbeschulen* (in their new form) – as the most prestigious institutions – again rose considerably. Between 1910 and 1914, 12 new schools were established.[70] Taking into account all kinds of technical and vocational schools, in 1912/13 there were[71]:

Institutions	Number	Students
Gewerbliche Zentralanstalten	8	10,447
Staatsgewerbeschulen	31	20,101
Bau- und Kunsthandwerkerschulen	8	3,716
Fachschulen f, einzelne Gewerbe	201	31,748
Lehrwerkstätten	15	332
Allg, Handwerkerschulen	7	2,302

68 "Protokoll über die XLIV. und XLV. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 5. December 1901", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 20*, 1902, pp. 137–242; "Protokoll über die XLVII. und XLVIII. Sitzung der Zentralkommission für Angelegenheiten des gewerblichen Unterrichtes am 2. März 1904", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 22*, 1904, pp. 157–270.

69 Verordnung des Ministers für öffentliche Arbeiten vom 17. Dezember 1909, Zl. 166–XXIa/18, zit. *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 28,* 1910, 149.

70 Schermaier, *Wirtschaftsförderung durch zentralstaatliche Bildungsmaßnahmen*, p.108.

71 "Generelle Übersicht der Gesamtfrequenz der staatlichen und nicht staatlichen gewerblichen Lehranstalten, einschließlich jener für die weibliche Bildung in diesen Berufsrichtungen im Schuljahr 1912/13", *Zentralblatt für das gewerbliche Unterrichtswesen in Österreich 32*, 1914, p. 378.

Institutions	Number	Students
Gewerbliche Fortbildungsschulen	1,500	193,580
Lehranstalten für weibliche Jugend	1,777	29,770
Together	2,947	291,996

Compared to the beginnings in the seventies of the 19th century, these numbers – including independent institutions (for male and female students alike) run by the state, the *Länder*, communes or associations – show quite a considerable growth in the field of technical and vocational education. Yet one aspect remained more or less the same: the regional disproportion. But that was not primarily the fault of the administration but the result of an uneven geographical distribution within Cisleithania owing to the vicissitudes of economic development. Ernst Pliwa, one of the leading civil servants concerned with the technical and vocational education first in the *Ministerium für Cultus und Unterricht*, then in the *Ministerium für öffentliche Arbeiten*, put it bluntly: "*Wo Kohle ist, da findet sich auch Industrie*," and he might have added: "*wo Industrie ist, da sind auch Schulen*".[72]

72 Pliwa, "Die Entwicklung des gewerblichen Unterrichtswesens", p. 512.

Žarko Lazarević

Education and Economic Development in Slovenia (Some Observations up to WWII)

In economics it holds that the correlation between education and economic modernisation cannot be denied. Here we have to emphasise that the modern economics does not refer to education as often as it does to human capital. The concept of human capital itself includes useful knowledge and skills acquired by individuals during the process of (vocational and general) education, training or work. Such definition also equalises both kinds of education we obtain in our lives: formal and informal.[1]

Paul Samuelson and William Nordhaus argue that four requirements must necessarily be met in order to ensure faster economic development and modernisation of society. Society must have at its disposal suitable human and natural resources as well as the accumulation of capital and technology.[2] In this concept we should also mention the thesis of Douglas C. North, who pointed out: "Economic change is a result of changes, one, in the quantity and quality of human beings; two, in the stock of human knowledge, particularly as it applies to the human command over nature; and three, in the institutional matrix that defines the incentive structure of society. A complete theory of economic change would therefore integrate these three strands".[3]

The category of human resources – meaning, the population with all its capabilities, brought together within the concept of human capital – is the most interesting category for our discussion. In order to introduce and manage the economic processes, a certain level of knowledge and experience is essential. Already at the first educational level – at the level of basic literacy – it has to be

1 David Mitch, "Education and Economic Growth in Historical Perspective", in Robert Whaples (ed.), *EH.Net Encyclopedia,* July 27, 2005. URL http://eh.net/encyclopedia/article/mitch.education.

2 Paul Samuelson – William Nordhaus, *Ekonomija* (Ljubljana, 2002), p. 233.

3 More detailed in Douglas C. North, *Understanding the Process of Economic Change* (Princeton University Press, 2005).

underlined that it lowers the costs of information dissemination.[4] Well-educated population is more productive, uses capital more efficiently, finds it easier to adapt to new technologies and is capable of promptly upgrading the existing knowledge.[5]

By no means should we overlook the very important contribution of education to social development. It may be indirect, but it is that much more effective. Increasing the education level of the population or society as a whole creates an atmosphere favourably inclined to development in all fields, not only economy. Simultaneously, as the education (knowledge[6]) level increases, the possibility of innovations at the level of business strategies and practices as well as economic development technology also increases.[7] Thus education is only one of the factors of economic development, and its influence on this development also has to be evaluated in such a context. We should not neglect to emphasise additional aspects of contents and meaning, expanding the moments of the social acceptability of progress. With this we mean the cultural background[8] of socio-economic changes, underlined by the institutional theory,[9] which are an integral part of various developmental paradigms.

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After the introductory part defining the correlation between education and economic development at the schematic level we will focus on the Slovene circumstances. We will try to define the place of the Slovene economic development until the World War II from the viewpoint of the education. We wish to bring the attention to the points which in view of their long-term effects seem to be the turning points towards focusing on different values. Obviously we should emphasise that it is not our purpose to present the development stages and dynamics of Slovene educational institutions, education and educational policy. With this restriction in mind, we will first make four assertions that in our opinion describe the Slovene situation from the middle of the 19th to the middle of the 20th century. These statements are the following:

4 Marjan Senjur, *Razvojna ekonomika – teorije in politike gospodarskega razvoja* [Development Economics – theories an politics of economic development] (Ljubljana, 2002), p. 289. Hereafter Senjur, *Razvojna ekonomika.*

5 Antonio Ciccone – Elias Papaioannou, "Human Capital, the structure of production and Growth", *Working Paper Series No. 623/ May 2006, European central bank, 2006*, pp. 31 – 32.

6 Aleksandar Keše ljević, "Vloga in pomen znanja v teoriji rasti" [The role of konowledge in Growth Theory], *NG*, Vol. 3-4, 2006, pp. 115 – 124.

7 Senjur, *Razvojna ekonomika*, pp. 289 -291.

8 Lorena Korošec, "Kultura in ekonomska rast" [Culture and Economic Growth], *Ekonomski pregled*, 52 (11 – 12), 2001, pp. 1378 – 1399.

9 Douglas North, *Institucije, institucionalne spremembe in gospodarska uspešnost* [Institutions, Institutional Change and Economic Performance (Political Economy of Institutions and Decisions] (Ljubljana, 1998).

1. the Slovene level of education was modest,
2. the educational structure was unbalanced in terms of professions, and humanist intelligentsia prevailed,
3. the Slovene space was governed by anti-progress ideology: the social atmosphere not in favour of economic development persisted,
4. the affirmation of certain aspects of technology and economic efficiency in the social perception was delayed.

All the interconnected statements defined the basic parameters of the Slovene economic and social development. However, they differed among themselves in terms of the time of their effect. The first two points manifested themselves as a long-term constant. The third point partially lost its momentum in the interwar period, when the fourth one started taking effect.

To illustrate the situation, let us begin with some information from 1948.[10] The educational structure in Slovenia of that time was the following:

No education	3.0 %
Elementary school	85.3 %
Lower secondary school	7.8 %
Upper secondary school	3.1 %
University education	0.8 %

The average inhabitant of Slovenia only attended school for a bit over four years. This confirms our initial statement about the modest education level in Slovenia in the long-term perspective until the World War II. It is more than obvious that the focus of education was on the elementary school level – on the level of basic literacy. This supports the second initial statement: that the education level structure on higher levels – that is, the secondary school (lower and upper levels) and university education – was deficient and unbalanced in terms of professions.

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One of the basic roles of education in the society is to create an atmosphere favourably inclined towards economic progress. In such an environment innovations in the social as well as economic processes are also made possible or encouraged. In the historical context, we can draw a line between two very important periods in the time since the end of the World War I. Circumstances more favourably disposed to economic and social modernisation, also at the

10 *Ekonomsko društvene osnove sistema školstva u FNRJ* [Economic and Social Foundations of School System in Yugoslavia] (Beograd, 1953).

level of the public discourse, started to be established. The time between the two world wars represented a conclusion of the preceding period on various levels – the period from the middle of the 19th century until the beginning of the World War I. However, also within these points in time, two shorter periods should be distinguished. The division line between them is the beginning of the 1880s. As far as economic progress is concerned, a developmental standstill in the Slovene space was characteristic for the first period, lasting until the beginning of the 1880s. Due to the transformational depression during the transition from the feudal to capitalist economic system, the Slovene territory remained on the edge of modernisation processes. It made use of but a few innovations of modern capitalist economy. Thus the basic relative economic relations with the northern and western neighbouring territories were established. This lag in the economic modernisation processes notably characterised the Slovene space, not only in the field of the economic progress achievements, but also or especially in the field of social ideology.

No theoretical and practical ideas and initiatives with regard to a different economic and social structure were to be seen. Anti-capitalism and protectionism became the predominant ideologies – as an answer to not keeping up with the modernisation processes. At first both of these phenomena were a consequence of the delay, while later they also became its cause, since a social atmosphere disinclined to faster economic modernisation had been formed. The collective had precedence over individualism, and certainty was more important than risk: perhaps in this sense we could even say that rentiership had a higher value than entrepreneurship.[11]

This pattern was most distinctively established after the ideological division in the last decades of the 19th century. Prior to that, an affirmative social discourse can be detected with regard to modernisation, albeit with some apprehension.[12] After the ideological division, the prevailing social discourse changed, especially after the unilateral political homogenisation. The perception of farmers as bearers of national awareness and devotedness to the church/Catholicism brought about a specific moment in national discourse based on religion. For a part of the Slovene elite, the affiliation to the Slovene nation was synonymous with practicing the Catholic religion. This did not contribute to a positive development programme, but to the one of a defence, as the modernisation also brought secularisation. The fundamental emphasis within the defence discourse was put on the preservation and consolidation of the existing situation. However, the development was not

11 Žarko Lazarević, *Plasti prostora in časa* [Layers of Space and Time – Chapters from Economic history of Slovenia in the first Half of 20th Century] (Ljubljana, 2009), pp. 23-24. Hereafter Lazarević, *Plasti prostora.*

12 Peter Vodopivec, *O gospodarskih in socialnih nazorih na Slovenskem v 19. stoletju* [On Economic and Social Principles of the 19th Century Slovenia] (Ljubljana, 2006), pp. 130-150. Hereafter Vodopivec, *O gospodarskih in socialnih nazorih.*

objected to in its entirety. The economic progress was present but it had to be very slow, undertaken with extreme caution, and was by no means allowed to disrupt the traditional social model.[13] As a logical consequence, such a starting point meant that, in addition to the ideological and political homogenisation, homogenisation of the people living in poverty also came about. This fact was not changed even by the extensive cooperative organisation which played an extremely important part by increasing the farmers' purchasing power with their income unaltered. In the long run, however, it was unable to ensure economic modernisation. Nevertheless, cooperative societies were an effective tool used to achieve political and ideological limitation within one's own nation, as they enabled control over market presence, control over the economic potential of membership, as well as the production and distribution of information via the cooperative and other types of print.[14] It was at this point that supporters of differing political beliefs found themselves sharing the same viewpoint.[15]

In this context, it would be impossible not to consider the activities the purpose of which was to reject anything that disrupted the homogenisation of people and enhanced the property or intellectual differentiation. The modernisation-related phenomena were disruptive to the existing order of limitation within the country's own national borders. If one's differences were displayed, a step that followed would generally involve public discrediting. Disqualification was based on two moments in public discourse, namely on moralising and disputing genuine nationality. Modern art, for example, was discredited as amoral and anti-national.[16] The property-related and entrepreneurial differentiation was characterised as capitalist activities that were equal to rapaciousness and selfishness.[17] As such, they were expected to be in opposition to the imagined Slovene character. The circle was thus completed.

The possible reasons for such a social atmosphere lie in the unbalanced social and educational structure. Thus, the entrepreneurial bourgeoisie as the propagator of progress in the economic and social field was non-existent. On the other hand the one-sided nature of the Slovene elites, which influenced the construction of social reality, was more than obvious. The representatives of

13 Jasna Fisher et al. (eds.), *Slovenska novejša zgodovina 1* [Contemporary Slovenian History] (Ljubljana, 2005), pp. 24-120.

14 Lazarević, *Plasti prostora*, pp. 307-360.

15 Jurij Perovšek, *Na poti v modern* [On the Way to Modernism] (Ljubljana, 2005), pp. 15-80. Hereafter Perovšek, *Na poti v modern.*

16 Egon Pelikan, "Ideološka izhodišča cenzure v konceptih slovenskega političnega katolicizma ob koncu 19. in v prvi polovici 20. stoletja" [Ideological Starting Points of Censorship within the Concepts of the Slovenian Political Catholicism at the End of the 19th and the First Half of the 20th Centur], in Mateja Režek (ed.), *Cenzurirano.Zgodovina cenzure na Slovenskem od 19.stoletja do danes* [Censored. The History of Censorship in Slovenia from the 19th Century to the Present Day] (Ljubljana, 2010), pp. 45-54.

17 Various articles in the Narodni gospodar newspaper, a gazette of the Cooperative Union published in Ljubljana at the break of the 20th century.

humanist disciplines (priests, teachers) and social science disciplines (lawyers) were prevalent within this sparse group. Their way of thinking was torn between the traditional and modern. It is not very risky to conclude that this mentality, with its focus still more on the traditional social and economic structure, was less favourably inclined towards modern economic and social developments.[18]

The aspect of ethnicity, which strongly characterised the Slovene space of the second half of the 19th century, also has to be taken into account in the assessment of the construction of the economic anti-modernisation atmosphere. Namely, it often seemed that economic modernisation went hand in hand with ethnic assimilation. In the eyes of the humanist elites, influencing the public discourse and identifying themselves in Slovenism, the opposition between the principle of national (ethnic) adherence and the principle of economic modernisation started to be established. Therefore the Slovene society was blocked, unable to open itself up to the modern world completely, as Dušan Pirjevec put it.[19] Instead of focusing on economic efficiency, it emphasised the symbolic modernisation[20] in the form of national cultural institutions and organisations. In this context, cooperatives were encouraged instead of individual entrepreneurship. Cooperatives also functioned as a tool for establishing control and closing the borders of the Slovene ethnic community in the economic field.

The social atmosphere, disinclined to progress, was a consequence of the circumstances in which there was a lack of high-quality resources: human and natural as well as capital and technology. With regard to these developmental factors, the Slovene territory depended on the import of knowledge, capital and technology. Only since the 1880s did a more intensive process of economic development take place. A significant presence of technical personnel from other Austrian, especially Czech lands, taking care of the smooth technological process of production, was evident in more important Slovene companies. The Slovene environment, as a rule, supplied an abundance of literate workforce. This fact can be underlined as one of the more important characteristics of that time.

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The period between the two world wars, after Slovenes had entered the Yugoslav state, brought many changes, as we have already indicated. We should focus on three of them which had significant consequences for the Slovene economy and society at that time. That includes the newly acquired self-confidence, somewhat swifter industrialisation in the 1920s, as well as the establishment of the University in Ljubljana and the organised technical study programme.

18 Vodopivec, *O gospodarskih in socialnih nazorih* [On Economic and Social Principles], pp. 151 – 221.

19 Dušan Pirjevec, *Vprašanje naroda* [The Question of the Nation] (1964), pp. 90-91.

20 The expression was used by John Kenneth Galbraith, *Economic development* (1965), p. 4.

The time between the two world wars was a period when the Slovene society stood before the challenges of transitioning to the new and different paradigm of development, social relations and the concept of economic and social progress. The national discourse lost some of its current edge and was gradually muted down by the development discourse, as the social problems were a burning topic in Slovenia too, and, at their core, actually represented a problem of development. According to all calculations, half of the rural population was "superfluous" in terms of their productivity.[21] This is where the "in-between" position of Slovenia in terms of belonging to Eastern or Western Europe was most evident. The Slovenia of that time had problems both in relation to workers as well as rural problems. The working class population rose to such an extent that their social position was in urgent need of a system organisation. The rural problem was impossible to solve by means of an agrarian reform, as there was not plenty of land to be distributed amongst farmers. The rural issue could only be solved by means of a new development model, as other aspects of economic modernisation were impossible without modernising agriculture (increase of productivity).[22] This is precisely where the change of the development model occurred, whereby the significance of raising education levels and the scope of knowledge on society and technology became relevant. At the turn of the century, the prevailing part of the Slovene elite directed most of their energy into the preservation of farming culture rather than to the entrepreneurial transformation of other sectors. Furthermore, the other pole of the Slovene elite was unable to bypass the structural social and economic matters, according to which the argument in favour of protecting the rural population prevailed over the entrepreneurial emphases.[23]

The development model in the new environment thus had to answer the fundamental question of how to ensure the transition of the rural population into the industrial sector, and how to save nearly half of the rural population from poverty and despair. This was namely the only way to solve the social problem. To enable this, there were three basic problems that had to be resolved; namely, (i) the problem of the scope of investments (capital issue!) enabling economic growth and the generation of new jobs, (ii) the problem of promotion of the entrepreneurial spirit and stripping entrepreneurship of its negative connotations, and (iii) the problem of raising the general level and balancing the education structure.

The existence of the Yugoslav state meant that the circumstances changed in many ways, especially at the level of economic and social environment. A very important change also took place at the level of defining and comprehending the nation and the national question. Within the Yugoslav state, of which Slovenes

21 *Slovenec*, 13th June 1924.

22 Mojca Novak, »Periferna agrarna transformacija:slovenski primer« [Peripheral Agrarian Transformation: The Slovenian Example], in Neven Borak – Žarko Lazarević (eds.), *Prevrati in slovensko gospodarstvo v XX. stoletju* [Overthrows and the Slovenian Economy] (Ljubljana, 1996), pp. 23-36.

23 Perovšek, *Na poti v modern*, pp. 63-83.

formed a constituent part, the perception of the national question changed. As the state context altered, the danger of assimilation/Germanisation in the major part of the Slovene territory passed, which resulted in a more relaxed social atmosphere. The processes of »Slovenisation« of the economy, administration, politics and culture raised the social self-awareness. In the new situation, the feelings of social, cultural and economic subordination gradually disappeared. The consequences of the new self-conscience were multifaceted.

The process of increasing self-awareness was also accompanied by other processes, including or especially in the economic field. In the new environment Slovenia, despite its relatively modest developmental achievements, became economically the most advanced part of the state. Slovenes were a constituent part of a state that had a very important function. The state behaved paternalistically in order to compensate for the underdeveloped social and institutional environment and to promote swifter economic development. The state acted as a guarantor of the accelerated accumulation of capital, which was not in opposition to the Slovene wishes. In such a protectionist environment, after the relative level of prices changed in favour of the industrial sector, and in light of such a large market, industrialisation in Slovenia intensified. The encouragement provided by the Yugoslav market made up for what was otherwise a deficient institutional framework and spurred development. Industrial capabilities doubled in a relatively short time, and the scales of the national product or income generated already tipped in favour of non-agrarian activities.

It was important that economic development originated from the characteristics of the Slovene space: deficient educational level of the population, modest accumulation of capital and low technological level. Within the industrial sector, the branches developing most rapidly were those that did not demand a high technological level, but required a lot of workforce, which Slovenia had in abundance. Here we also have to underline the high literacy rate of the population. Furthermore, a relatively notable presence of foreign technical experts in the Slovene economy, overseeing the more demanding production and management processes, was also characteristic of this time. The characteristics of the educational structure remained the same. The Slovene population may have been 90 % literate; however, the extent of secondary school or university education was still modest and of limited scope.

However, changes also took place in this regard. The time between the two world wars brought about important changes in education, contributing to a gradual alteration/expansion of the educational level and structure. In the 1920s, the number of pupils enrolled in secondary schools doubled, and the number of students enrolled in the university increased as well due to availability.

This information does not only reflect the achievements of the general social development, but also the progress of the system of social values, school policy and accessibility of higher level education. The 1932 manual about the correct selection

of study courses attests to the wider backgrounds and social circumstances of the perception of individual professions at the academic level.[24] The messages conveyed to the readers were ambivalent. Already in the introduction, the author stressed his opinion about the necessity of higher education: »...education is a treasure, it is useful everywhere, without it one is worth less and less these days...« He took part in controversial debates about the impression of the »hyper-production of intelligentsia« present in the public, claiming that it had no real basis. But despite his sober outlook on the world of education, the author nevertheless dissuaded women from taking part in higher education, claiming that the abstract and theoretical emphases of the university-level studies were incompatible with the female way of thinking (emotional, vivacious, personal, concrete). He may not have assigned certain values to individual professions; however, certain implications of his emphases were quite meaningful. The space intended for individual professions was allocated in favour of the humanist and social science disciplines. In the wide range of vocations within the technical professions, the author evidently emphasises the difficult and demanding nature of these studies as well as the more limited possibilities for employment in comparison with humanist and social science professions.[25]

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The founding of the University with significantly more accessible courses introduced a new dimension in the Slovene space. As the technical studies and other social science disciplines outside of legal sciences strengthened, the composition of the educational level started changing. The educational structure became more balanced in terms of professions. Thus in the academic year 1931/32, 30 % of all students of the Ljubljana university were enrolled in technical programmes. The percentage of students at the Faculty of Arts and Faculty of Law was roughly the same.[26] The percentage of the technical intelligentsia among the intellectuals became much more prominent, even though from the viewpoint of economic development and requirements for controlling the economic processes at the level of technology and managerial work, the lack of the technical staff was still noticeable.

In the interwar period, the Slovene technical intelligentsia also affirmed itself. Not only did the graduates of technical and social science studies gradually enter the Slovene economy and take over the leading posts – their public role was also important. They entered the public space, introducing new emphases and new knowledge, unusual for the Slovene space. This breakthrough of the technical intelligentsia was made possible by both aforementioned elements: the University

24 Lovro Sušnik, *Akademski poklici* [Academic Professions] (Ljubljana, 1932).
25 Ibid., p. 75.
26 Ibid., pp. 67-68.

and better accessibility of education as well as industrialisation. Industrialisation played an especially important role – when it turned into an ongoing process, it needed a constant influx of properly educated and trained technicians and engineers, especially to achieve the transition to new technologies or introduce more demanding technologies in the Slovene space.

The vocabulary, intellectual framework and grasp of new professionals in the technical fields were different from the previous context – the established model in terms of contents, development priorities and hierarchy of social values, which the humanist intelligentsia – traditionally the most numerous group of intellectuals among Slovenes – identified with. The questions of culture and nation were no longer in the centre of their interests. The new professionals went beyond this and focused on technological issues, the question of applying the technologies to the production processes, the ways and manners of managing the technological and business processes, and the relationship between technology and society or their co-dependence. The conceptualisation and topics of their public appearances contributed significantly to the establishment of the new social atmosphere in the Slovene public, which started recognising and accepting with greater understanding the dynamics and multi-layered processes of economic and social modernisation.

The persistence of the technical intelligentsia in the fields of society and economy management technology with the purpose of achieving greater economy within the developmental dynamics introduced the need for new considerations of the developmental strategies and practices in the Slovene space. One of these intellectuals communicated the fundamental developmental dilemma in Slovenia to the Slovene public without any embellishment: »In Slovenia agricultural production will have to be increased; or the percentage of the agricultural population will have to be reduced by a half«.[27] This may have been expressed in a technical manner, but it was efficient and lucid, underlining an aspect completely overlooked until that time. Others tried to make sense of the Slovene economic position in the Yugoslav state. They made the society think about the dilemma of how to restructure the Slovene industry (economy) to ensure higher and more demanding levels of production, which required more knowledge, more complex technologies and capital. The completed analyses led them to conclude that the previous developmental model, involving the expected industrialisation of other Yugoslav regions, did not promise a permanent success.[28]

These may have been small steps; however, they were very important in the Slovene environment. The principle of the comprehensive co-dependence

27 *Slovenec*, 13 June 1924.

28 Črtomir Nagode, "Naravne osnove smotrne upravne ureditve naše države" [Natural Foundations of an Efficient Administrative Arrangement of Our Country], *Misel in delo*, No. 11-12/1939, pp. 362-363; Stanislav Roglič, "Jesenice in Zenica" [Jesenice and Zenica], *Tehnika in gospodarstvo*, No. 11-12/1935-36, p. 227.

of society, economy and technology was introduced into the construction of social reality. The introduction of these concepts into the public space was also ensured with specialised magazines like *Tehnika in gospodarstvo* (Technology and Economy), *Misel in delo* (Thought and Work) and *Trgovski tovariš* (Commercial Companion), which brought together the humanist, technical and social sciences intelligentsia. The expansion of the scope of the debate in the direction of a multi-disciplinary approach to the comprehensive analysis of complex developmental relations between the society, technology and economy was an important intellectual achievement for the Slovene space. In the 1930s, a special scientific institution was also established: the Socio-Economic Institute, working on the studies of various aspects of social and economic progress. The establishment of this Institute was important, since for the first time in Slovene history the critical assessment and consideration of possible strategies and practices of socio-economic development was finally institutionalised – admittedly on the level of a society, but nevertheless.

The extensive presence of the technical intellect in the Slovene public and society is a part of the wider social process. It is a process of softening up the traditional economic model or the modernisation of the social and economic structure which progressed with greater intensity in the period between the two world wars. There is, therefore, a consensus in the Slovene historiography, the one indicating that the time between the two world wars, along with the more relaxed period taking place at the beginning of the 1920s, stands for a heyday of various forms of culture-related work in the field of artistic creation in fine arts, music and dance, literature, playwriting, theatre and architecture. The Slovene artistic creativity followed the modern artistic and cultural currents and enabled the transposition of current artistic poetic and aesthetic features into the Slovene space. By upgrading and modification, it also created outstanding national achievements. Great strides were also made in the field of re-creation, either in the form of professional or amateur culture. Furthermore, a great diversification of cultural institutions was taking place. At the level of scientific and intellectual work, an extremely important role was played by the University of Ljubljana, which enabled the communication of the Slovene space with the international environment, as well as the transfer and adoption of a plethora of knowledge that was new to Slovenia.[29]

The intellectual activity, either artistic or scientific, opened in the public a question of the role of creativity and inventiveness, as well as its influence on social development. At the same time, it reflected on this issue from a critical distance. It enforced the social distinction made on the basis of artistic power or intellectual potential. By setting originality and critical stance as the principles of existence, it urged its audience to display its own individuality in all areas of

29 "Kultura 1918-1941«, Jasna Fischer et al. (eds.), *Slovenska novejša zgodovina 1* [Culture 1918-1941, Contemporary Slovenian History] (Ljubljana, 2005), pp. 415-440.

life. The engagement of the Slovene technical intellect in the period between the two world wars must also be regarded within this broader process of invigorated intellectual pursuits.

Ernst Bruckmüller

Der Zugang zu den Hochschulstudien im alten Österreich

Eine der zentralen Fragen an die Geschichte lautet, wie es denn zu einer bestimmten Zeit mit der Erreichbarkeit bestimmter Bildungsgüter und Bildungsgrade beschaffen gewesen sein, oder, anders ausgedrückt, wem es denn überhaupt möglich war, eine Sekundarstufenbildung bzw. eine Hochschulausbildung zu erreichen.[1]

Zu dieser Frage haben im Hinblick auf die Habsburgermonarchie Gary Cohen und Helmut Engelbrecht ausführliche Studien vorgelegt.[2] Danach war im 19. Jahrhundert die Zahl der Studierenden an Universitäten und Hochschulen nur langsam angestiegen. Es war dies eine logische Folge der von Maria Theresia, Joseph II. und Franz II. (I.) betriebenen Bildungspolitik, die zwar eine breite Grundausstattung der Bevölkerung mit bestimmten grundlegenden Techniken (Lesen, Schreiben, Grundrechnungsarten), aber nur wenige Möglichkeiten zur Erlangung einer „lateinischen" Bildung vorsah, und für die Hochschulbildung ausschließlich praktischen Zwecken diente, nämlich der Heranziehung von Priestern, Ärzten und Beamten, jedoch keiner Verbindung von Forschung und Lehre, wie sie Wilhelm von Humboldt in Berlin mit großem Erfolg eingeführt hatte. Es gab also bis 1848 nur sehr wenige weiterführende Bildungsanstalten, die Zahl der Gymnasien war kleiner als bis 1773.[3] Die Hochschulprofessoren waren in ihrer Lehre extrem eingeschränkt, sie waren auf ein Lehrbuch festgelegt (das konnte, nach Genehmigung, auch ein eigenes sein), und durften kein Jota von den dort dargebotenen Inhalten abweichen. Die Gymnasien waren immer noch nach Klassen organisiert, mit Klassenlehrern, die Einführung des Fachlehrerprinzips wurde zwar von Fachleuten mehrfach gefordert, aber nicht umgesetzt.[4] Immer-

1 Eine Erstfassung dieses Beitrages erschien in der Festschrift für Arnold Suppan, hg. v. Marija Wakkonig, Wolfgang Müller und Michael Vortmann (Wien 2010), 263-278.

2 Gary Cohen, Education and Middle-Class Society in Imperial Austria 1848 - 1918, West Lafayette, Indiana 1996; Helmut Engelbrecht, Geschichte des österreichischen Bildungswesens. Erziehung und Unterricht auf dem Boden Österreichs. Bd.4: Von 1848 bis zum Ende der Monarchie, Wien 1986.

3 Cohen, Education, 15: in Böhmen gab es 1773 44 Gymnasien, 1847 nur 21, in Mähren 1773 15, 1847 nur acht.

4 Hubert Weitensfelder, Studium und Staat. Heinrich Graf Rottenhan und Johann Melchior von

hin wuchs im Vormärz die Zahl der Realschulen, die als Bildungsinstitute für das kommerzielle Bürgertum gedacht waren. 1806 und 1815 wurden in Prag und Wien polytechnische Institute, die Vorgängereinrichtungen der späteren technischen Hochschulen, eingerichtet. Das entsprach auch den Neigungen des Kaisers: Franz II. (I.) war extrem misstrauisch gegenüber allen freien geistigen Entwicklungen, wie sie das Humboldt'sche Universitäts-Modell vorsah, aber technischen Fortschritt und technische bzw. naturwissenschaftliche Bildung schätzte er durchaus.[5] Dass es aber Aufgabe des Staates sei, Gelehrte systematisch heranzubilden, war ein diesem Kaiser eher fremder Gedanke.

Universitäts- und Mittelschulorganisation nach 1848

Entscheidende Veränderungen brachte erst das Revolutionsjahr 1848. Schon im März 1848 wurde ein Unterrichtsminister bestellt, ein eigenes Unterrichtsministerium geschaffen und die Freiheit der Lehre versprochen. Der erste Unterrichtsminister, Franz Freiherr von Sommaruga plante eine Umgestaltung des Mittelschul- und Universitätssystems nach dem als vorbildlich geltenden Muster von Berlin. Als erste Maßnahme wurde der philosophische Einführungsunterricht von den Artistenfakultäten in die Gymnasien verlegt und deren Besjuch damit von sechs auf acht Jahre verlängert. Die neue Maturitätsprüfung („Matura") wurde zur Eintrittsprüfung in die Universitäten, bald aber auch zur Voraussetzung für die Erlangung gewisser Beamtenpositionen.[6] Schon unter den Vorzeichen der Konterrevolution wurde im September 1849 der von Franz Exner und Hermann Bonitz erarbeitete „Organisationsentwurf" für das Gymnasium vom Unterrichtsminister (seit Juli 1849) Graf Leo Thun-Hohenstein dem jungen Kaiser Franz Joseph vorgelegt und von diesem genehmigt.[7] Thun setzte sogleich wichtige Schritte in Richtung einer Universitätsreform, in der Lehr- und Lernfreiheit eine zentrale Rolle spielen sollten.[8] In Zukunft sollten sich die österreichischen Universitäten zu Stätten von Lehre und Forschung entwickeln. Zahlreiche Professoren wurden aus dem Ausland berufen, zum Entsetzen guter Katholiken nicht wenige Protestanten. [9]

Birkenstock als Repräsentanten der österreichischen Bildungspolitik um 1800, Wien 1996, 139 f. – Ein Fachlehrersystem für Gymnasien existierte von 1807 bis 1818, vgl. Weitensfelder, Studium, 151.

5 Das zeigt sich auch in seiner Sammlungstätigkeit. So hat dieser Kaiser Teile der Sammlung von James Cook. für Wien ersteigern lassen, auch in seiner Porträtsammlung spielen Naturwissenschaftler eine große Rolle, vgl. Alexander Sperl, Das Bild des Gelehrten. Europäische Ideen- und Wissenschaftsgeschichte im Spiegel des Gelehrtenporträts, in : Hans Petschar (Hg.,), Die Porträtsammlung Kaiser Franz I. Zur Geschichte einer historischen Bildersammlung der Österreichischen Nationalbibliothek, Wien – Köln – Weimar 2011, 185 – 228.

6 Cohen, Education, 28.

7 Engelbrecht, Geschichte, Bd. 4, 147; Hans Lentze, Die Universitätsreform des Ministers Graf Leo-Thun-Hohenstein (Österr. Akad. d. Wiss., phil.-hist. Kl. Sitzungsberichte 239/2) Wien 1962, 31.

8 Lentze, Thun, 37 – 39.

9 Lentze, Thun, 41.

Die neuen Gymnasien (und Realschulen), aber auch die Universitäten sollten nicht von allzu vielen jungen Leuten besucht werden. Es gab zwar Stipendien für ebenso mittellose wie hervorragende Studenten, aber im Allgemeinen wünschte der Staat nicht, dass die Mitglieder der ärmeren Klassen studierten. Eine gewisse Erschwerung des Hochschulzuganges sollte die Einführung der Kollegiengelder (1850) bringen.[10] Für zukünftige Verwaltungsbeamte, Richter und Staatsanwälte wurden in der Folge neben den für das Doktorat entscheidenden Rigorosen (Rigorosenordnungen 1872) Staatsprüfungen vorgeschrieben. Für zukünftige Lehrer („Professoren") an Gymnasien und Realschulen („Mittelschulen") wurden staatliche Lehramtsprüfungskommissionen eingerichtet.[11] Die quantitative Entwicklung sah zunächst ein Sinken der Hörerzahlen an Universitäten und Polytechnika unmittelbar nach 1849 – eine Folge der Verlängerung der Mittelschulen um zwei Jahre. Die Universität Wien hatte in den 1850er Jahren etwa 2.500 Stundenten. Erst um 1860 begann ein steiler Anstieg – 1865 zählte man erstmals um 3.000, 1870/71 mehr als 4.000 Studenten.[12] Die Zahlen an den Universitäten in Graz und Innsbruck lagen weit darunter. In den 1850er Jahren wuchs auch die Zahl der mittleren Schulen kaum, während die Zahl der Grundschulen (Volksschulen) mit dem Bevölkerungswachstum mithalten konnte.[13]

Die weitere Entwicklung hat Gary Cohen sehr genau dokumentiert. In der Phase der Hochkonjunktur der späten 1860er und frühen 1870er Jahre stieg die Zahl der Realschüler und Realgymnasiasten stark an, die „akademische" Bildung auf der Sekundarstufe erreichte breitere Bevölkerungsschichten als je zuvor.[14] Nach Regionen differenziert hatten Niederösterreich (inclusive Wien), Böhmen, Mähren und Schlesien bei Neugründungen von Gymnasien, Realschulen und Realgymnasien die Nase vorn. Gemeinsam mit Galizien hatten Alpenländer wie Salzburg oder Vorarlberg 1880 die geringste Dichte an Mittelschulen. Berücksichtigt man allerdings den Anteil der Mittelschüler an den Elf- bis Achtzehnjährigen eines Landes, dann lag Salzburg mit 24,1 hinter Niederösterreich (30,8), Mähren (28,8), Schlesien (24,7) und Böhmen (24,6) an fünfter Stelle, noch vor Tirol (21,1) und Bukowina (17,6), und weit vor Krain und Oberösterreich (je 15,1), Kärnten (13,9), Steiermark (12,2), Galizien und Vorarlberg (10,7 und 10,4).[15]

Zur langsam wachsenden Zahl an Gymnasien, Realschulen und Realgymnasien kam als neuer Typus einer Mittelschule die Lehrerbildungsanstalt hinzu, die die Pflichtschullehrerausbildung nach dem Reichsvolksschulgesetz 1869 zu gewährleisten hatte. Auch sie schloss mit einer Matura.[16]

10 Cohen, Education, 31; Engelbrecht, Geschichte, Bd. 4, 225 (Engelbrecht interpretiert das Kollegiengeld aber primär als Mittel, um die Konkurrenz unter den Professoren anzuspornen – der bessere oder zumindest beliebtere Lehrer sollte ein höheres Einkommen lukrieren können!).
11 Engelbrecht, Geschichte, Bd.4, 229 f.
12 Engelbrecht, Geschichte, Bd.4, Grafik S. 514.
13 Cohen, Education, 63 – 65.
14 Cohen, Education, 68.
15 Cohen, Education, 69, Table 2/5.
16 Engelbrecht, Geschichte, Bd.4, 63 f.

Seit den 1880er Jahren stiegen die Zahlen der Gymnasiasten, Realschüler und Realgymnasiasten ebenso an wie die der Universitäts- und Hochschulstudenten (insbesondere an Technischen Hochschulen). Dabei zeigten sich gewisse Entwicklungsmuster: Nach dem schon beschriebenen Tiefpunkt um 1850 stieg die Zahl der Mittel- und Hochschüler langsam an, während der Depression 1861/65 fiel die Zahl der Inskribenten an den polytechnischen Schulen, dafür stieg die an Universitäten. Um 1870, auf dem Höhepunkt der Hochkonjunktur, stieg wiederum die Zahl der Technikstudenten, während die Zahl der Universitätshörer sank. Während der langen Depression der 1880er Jahre sank die Zahl der Realschüler ebenso wie die der Technikstudenten, während die Zahl der Gymnasiasten und Universitätshörer zunahm. Die akademische Jugend strebte in den Staatsdienst, als Beamte, Ärzte oder Mittelschullehrer. Nach 1890 wuchsen die Studentenzahlen an den Technischen Hochschulen wieder stärker an.[17]

Nun setzten auch erste Initiativen zur Ermöglichung höherer Bildung für das weibliche Geschlecht ein. 1873 wurde in Graz eine sechsklassige Anstalt errichtet, die als „Lyzeum" bezeichnet wurde. Hier wurden statt Latein und Griechisch Englisch und Französisch unterrichtet. 1877 folgte diesem Muster eine schon 1871 in Wien eröffnete, zunächst vierklassige „höhere Bildungsschule für Mädchen". Einem ersten Gymnasium für Mädchen, einer Vereinsgründung (1892), die nur „gymnasiale Mädchenschule" heißen durfte, blieb die eigene Matura verwehrt – sie musste an Schulen für die männliche Jugend abgelegt werden.[18] 1900 erhielten die Mädchenlyzeen eine neue ministerielle Ordnung, doch erwiesen sie sich zunehmen als „Bildungssackgasse".[19] Um Lyzeallehrerinnen zu werden, mussten Frauen auch Universitätsstudien absolvieren können – seit 1897 war das an der Wiener philosophischen Fakultät möglich, ab 1900 konnten Frauen auch Medizin studieren.[20]

Bis zur Jahrhundertwende bildete sich ein gewisses Muster der nationalen und religiösen Zugehörigkeit der Studierenden heraus. In dieser Zeit erreichten die Tschechen eine Inskribentenzahl, die ihrem Anteil an der Bevölkerung entsprach, bei den Technikern übertrafen sie sogar den Anteil der Deutschen.[21] Nun stieg auch der Anteil der Polen stark an, wobei unter den 1909/10 inskribierten etwa 6.700 Polen mehr als 1.100 Juden und eine unbekannte Zahl von Ukrainern sich befanden.[22] Dieser Prozess begann ausgerechnet in der Zeit der Regierung Taaffe, die keineswegs an einer Ausweitung der Mittel- und Hochschulbildung interessiert war. Gary Cohen berichtet ausführlich über Initiativen des Landesschulinspektors von Niederösterreich, Heinrich Schramm und des

17 Cohen, Education, 76.
18 Engelbrecht, Geschichte Bd. 4, 282 f.
19 Engelbrecht, Geschichte Bd. 4, 287.
20 Engelbrecht, Geschichte,Bd. 4, 290 f.
21 Cohen, Education, 150 f.
22 Cohen, Education, 151.

prominenten Ministerialbeamten Armand von Dumreicher[23], die darauf drängten, die Jugend von Gymnasialstudien abzuhalten und dafür den gewerblichen Unterricht zu forcieren. Freilich teilte der Statthalter von Mähren, Karl Baron Korb von Weidenheim, dem Ministerium mit, es sei angesichts der ungünstigen ökonomischen Zukunftsaussichten für Handwerker. Gewerbetreibende und Bauern nicht unverständlich, wenn die Jugend akademische Bildung so außerordentlich erstrebenswert finde. Er forderte die Schließung überflüssiger Mittelschulen und mehr Publizität für das gewerbliche Schulwesen.[24] Tatsächlich versuchte der langjährige Unterrichtsminister Paul Gautsch von Frankenthurn[25], Minister von 1879 bis 1893 und von 1895 bis 1896, durch Schließung einiger Sekundarschulen (Realschulen in Steyr und Cattaro/Kotor, Gymnasien in Bozen, Rovereto, Krainburg/Kranj und Cattaro, Untergymnasium in Sereth) den Drang zur Matura und damit zu den Hochschulstudien einzubremsen. Freilich erregten diese Pläne und Anordnungen lebhaften Widerstand, nicht nur, aber besonders bei den Tschechen, die sich um gewisse Hoffnungen für ihre Unterstützung der Regierung betrogen sahen.[26] Aber Gautsch fuhr fort, gegen die seiner Meinung nach zu hohen Zahlen von Mittelschülern und Studenten zu argumentieren: Nur zwei Prozent der männlichen Bevölkerung sei in höheren Bildungsberufen beschäftigt, aber mehr als vier Prozent der männlichen Jugend besuchten Mittelschulen. Es seien aber die Positionen in der öffentlichen Verwaltung besetzt. Und Hoffnungen auf immer mehr Lehrerstellen an Mittelschulen dürfe man sich auch nicht machen. Der Minister verwies sowohl auf den enormen Zuwachs an Mittelschülern und Studenten wie auch auf die hohe Zahl der Studienabbrecher.[27] Als Gautsch Mitte der 1890er Jahre nochmals versuchte, den jetzt stark wachsenden Andrang zu den Mittelschulen (und damit auch zu den Universitäten) zu begrenzen, erlitt er dabei Schiffbruch. Wie Helmut Engelbrecht[28] betonte, sank jetzt generell die Durchsetzungsfähigkeit der zentralstaatlichen Politik gegenüber regionalen, nationalen und parteipolitischen Interessen: Cohens überaus interessanter Vergleich zwischen den Universitäts- und Technikinskribenten 1879/80 und 1909/10 bestätigt, dass immer mehr junge Leute an die Hochschulen drängten: Auf tausend junge Leute im Alter von 19 - 22 Jahren entfielen 1879/80 zwischen 7,18 (Tirol) und 3,15 (Küstenland) Studierende, 1909/10 waren es in der Bukowina 19,44, in Galizien 15,65, in Mähren 13,78, in Niederösterreich 13,12, in Böhmen 12,42, sogar im Küstenland waren es 7,68 und in Dalmatien 8,32.[29]

23 Österreichisches Biographisches Lexikon 1, Wien 1957, 203 f.
24 Cohen, Education, 101 – 103.
25 Österreichisches Biographisches Lexikon 1, Wien 1957, 413 f.
26 Cohen, Education, 105.
27 Cohen, Education, 104. f
28 Engelbrecht, Bd. 4, 30 f.
29 Cohen, Education, 78 f. , Tab. 2/6.

In den letzten 20 Friedensjahren der Habsburgermonarchie wuchs die Zahl der Mittelschüler ebenso wie die der Technik- und Universitätsstudenten unerwartet stark an.[30] Gleichzeitig blieb die Zahl der Universitäten und Hochschulen praktisch gleich. Seit 1882 gab es in der österreichischen Reichshälfte der Habsburgermonarchie acht Universitäten (Prag – eine deutsche und eine tschechische, Krakau, Wien, Graz, Lemberg/L'viv, Innsbruck, Czernowitz/ Černivci). Dazu kamen sieben technische Hochschulen (Prag – eine deutsche und eine tschechische , Brünn/Brno – eine deutsche und eine tschechische, Wien, Graz und Lemberg/ L'viv). Hochschulrang hatte auch die 1872 in Wien gegründete Hochschule für Bodenkultur, ebenso die Akademie der bildenden Künste (1872).[31] Eine erste Handelshochschule blieb Episode (1873 – 1877), dafür erhielt das Tierarzneinstitut in Wien nach 1900 Hochschulrang, 1894 auch die Bergakademie zu Leoben (ihr entsprach eine in Přibram in Böhmen).[32]Alle diese Anstalten standen aber nach ihren Hörerzahlen weit hinter den Technischen Hochschulen ebenso wie hinter den Universitäten. Dasselbe gilt auch für die hier nicht weiter diskutierten theologischen Hauslehranstalten an den meisten Bischofssitzen (und in einigen Klöstern), ebenso wie einige andere hochschulartige Einrichtungen wie die Exportakademie (heute: Wirtschaftsuniversität Wien).

Massenuniversität um 1910?

Die rasche Zunahme der Studentenzahlen führte zu Erscheinungen, die von Zeitgenossen in dramatischen Tönen beklagt wurden:

„Es klagen die Studierenden über mangelhafte Erfüllung des Lehrberufes von Seiten der hohen Schulen. Sie finden nicht die Lehre so, wie sie sie brauchten, sei es zur beruflichen Vorbereitung für die Praxis des Lebens, sei es aber auch für die Erwerbung wissenschaftlichen Anfangskapitales. Eine übergroße Hörerzahl steht einer relativ geringen Zahl von Dozierenden gegenüber. Was Wunder, dass auch die Lehrtätigkeit, wie fast alles in unserer Zeit, mechanistische Formen angenommen hat. Der einzelne Hörer findet nicht das, was er sucht und was er zu finden berechtigt ist: intimeren Arbeitskontakt zwischen dem weisenden Meister und den suchenden Folgern. D e n n z w i s c h e n i h n e n s t e h t d i e M a s s e (im Orig. gesperrt).

Und es klagen auch die Hochschullehrer. Den für sie hat die Störung des Lehrbetriebes durch die Masse weit schwerer wiegende Folgen. Bedrängt doch die immer größere Arbeitskräfte bindende Lehrverpflichtung mehr und mehr die andere Richtung ihrer Lebensarbeit, die schöpferische Forschertätigkeit. Wie viel wertvolle Forscherkraft wird vergeudet in dem fast tragisch zu nennenden Gewissenskonflikt, in dem der Hochschullehrer unserer Großstadtuniversitäten heuzutage befangen ist: zwischen dem zur Forscherarbeit aufrufendem Genius und dem zur Lehrtätigkeit mahnenden Pflicht- und Verantwortlichkeitsgefühl!“ [33]

30 Cohen, Education, 76 f.
31 Engelbrecht, Bd, 4, 255 – 259.
32 Engelbrecht, Bd. 4, 260 – 265.
33 Hugo Frh. v. Haan, Statistische Streiflichter zur österreichischen Hochschulfrequenz, in: Stat. Ms. NF 22 (43), 1917, 155 - 208.

Abgesehen vom „weisenden Meister" und den „suchenden Folgern" könnte der Text aus dem zweiten Jahrzehnt des 21. Jahrhunderts stammen. Übervolle Hörsäle, Verschulung der Studienpläne, zu wenige und überlastete Hochschullehrer, die keine Zeit mehr für eigenen Forschung finden – das alles entnehmen wir der täglichen Klage, die unerhört aus den Gebäuden unserer Universitäten dringen. Doch die in unserem Zitat formulierten Klagen stammen nicht aus dem Jahr 2010, sondern aus dem Jahr 1917. Die Zahlenbasis, von der sie ausgehen, ist die Hochschulstatistik für das Studienjahr 1910/11. Wir wollen im Folgenden diesen ausführlichen statistischen Text zum Ausgangspunkt für die Diskussion der Frage nach den Zugangsmöglichkeiten zu universitärer Bildung nehmen.

Im Wintersemester 1910/11 studierten an den 20 österreichischen Hochschulen (incl. den drei selbständigen theologischen Fakultäten in Salzburg, Olmütz und Wien, hier evangelisch, aber ohne Kunsthochschulen, Exportakademie und Konsularakademie) 42.116 Personen (davon 2477 Frauen), ordentliche und außerordentliche Hörer zusammen.[34] Zur gleichen Zeit wiesen die 50 (reichs-) deutschen Hochschulen 85.638 Studierende (davon 6575 Frauen) auf. [35] Bei 28,6 Millionen Einwohnern (Österreich - »Zisleithanien«) kamen auf 10.000 Österreicher 14,74 Hochschulfrequentanten, auf 10.000 Reichsdeutsche (bei 65 Millionen Einwohnern) nur 13,19. Bloß auf Männer und ordentliche Hörer bezogen verschärft sich der Unterschied sogar auf 20,71 (D) zu 25,52 (Ö). In Österreich drängten also, nur bezogen auf die männlichen Studenten, um fast ein Viertel mehr Hörer auf die Hochschulen als in Deutschland. [36]

Vertiefen wir diesen Vergleich mit dem Deutschen Reich ein wenig.

Tabelle 1: Ordentliche immatrikulierte Studenten (männlich) in Deutschland und Österreich[37]

Studien-zweige	Österreich			Deutsches Reich		
	Absolut	In %	Auf 10.000 männl. Ew.	Absolut	In %	Auf 10.000 männl. Ew.
Theologie	1.691	4,7	*1,21*	4.312	6,6	*1,35*
Jus	11.941	33,3	*8,51*	12.360	18,6	*3,86*
Medizin	5.461	12,7	*3,25*	12.298	18,5	*3,84*
Philosophie	5.102	14,2	*3,64*	21.380	32,2	*6,67*
Universität	**23.295**	**64,9**	***16,59***	**50.350**	**75,9**	***15,71***
Technik	10.255	28,6	*7,31*	10.962	16,5	*3,42*
Bodenkultur	960	2,7	*0,68*	3.289	5,0	*1,03*

34 Haan, Streiflichter, 159.
35 Haan, Streiflichter, 159.
36 Haan, Streiflichter, 160.
37 Haan, Streiflichter, 161.

Studien-zweige	Österreich			Deutsches Reich		
	Absolut	In %	Auf 10.000 männl. Ew.	Absolut	In %	Auf 10.000 männl. Ew.
Tierarznei	771	1,6	*0,55*	1.138	1,7	*0,43*
Montanistik	580	2,2	*0,41*	623	0,9	*0,19*
Summe	**35.861**	**100,0**	***25,52***	**66.362**	**100,0**	***20,17***

Besonders attraktiv waren in Österreich die Studienzweige der Juristen und der Techniker. So gab es in Österreich 11.941 ordentlich immatrikulierte Juristen, in Deutschland 12.360, bei den Technikern waren es 10.255 und 10.962. An den acht österreichischen Rechtsfakultäten studierten praktisch ebenso viele Studenten wie an den 21 (reichs-)deutschen, ebenso viele Techniker an den sieben österreichischen technischen Hochschulen wie an den elf deutschen. Bei einer mehr als doppelt so hohen Einwohnerzahl waren die Zahlen der studierenden Juristen und Techniker praktisch gleich![38] In Österreich studierte genau ein Drittel aller Studierenden Jus, in Deutschland nur 18,6%. Ein Viertel aller Studenten in Österreich waren Techniker, in Deutschland nur 18,4%.[39]

Es war also die Prädominanz der Juristen in Österreich, wo ein Drittel aller Studenten Jus studierten, klar ausgeprägt. Fast noch überraschender - auch die Zahl der Techniker war in absoluten Zahlen etwa gleich hoch wie in Deutschland. Zusammen studierten fast 62% aller Studenten in Österreich Jus und Technik. In Deutschland waren nur 18,6 % der Studierenden Juristen, ziemlich genau so viel wie Mediziner. Gemeinsam mit den Technikern machten die Juristen 35% aller Studierenden aus. - Hingegen spielten Mediziner und Agrarstudenten in Deutschland eine erheblich größere Rolle als in Österreich. Aber bezogen auf die Einwohnerzahl waren beide Gruppen auch in Österreich nicht besonders unterrepräsentiert: Immerhin entfielen in Österreich 3,25 angehende Mediziner auf 10.000 männliche Einwohner, in Deutschland 3,84. Bei den Agrariern waren diese Verhältniszahlen 0,68 und 1,03.

Die Tendenz zur Massenuniversität schien in Österreich also bereits deutlich ausgebildet: Auf eine juristische Fakultät kamen in Österreich 1492,6 in Deutschland nur 589 ordentliche Studierende, auf eine technische Hochschule in Österreich 1463,5, in Deutschland 996,5 ordentliche Studierende.[40] Auf die 20 medizinischen Fakultäten Deutschlands entfielen je 615, auf eine der sieben österreichischen jedoch 652 ordentliche Studierende; auf die einzige Hochschule für Bodenkultur in Wien entfielen alle 1051 Frequentanten der Bodenkultur, auf die acht agrikolen Lehranstalten in Deutschland jedoch nur jeweils 456. Bei den Theologen verhielt es sich ähnlich: Mehr Studierende in Deutschland, aber auch

38 Haan, Streiflichter, 162.
39 Haan, Streiflichter 162 f.
40 Haan, Streiflichter, 163.

mehr Fakultäten. Zu den elf österreichischen theologischen Fakultäten (mit 1691 Hörern) muss freilich die große Zahl (45) hochschulähnlicher „theologischer Lehranstalten" (bischöfliche Seminare und Hausstudien einzelner Orden) mit insgesamt 1734 Hörern hinzugezählt werden. Aber auch in Deutschland war zu den 22 Fakultäten (mit etwa 4300 Hörern) eine hier nicht genannte Zahl von »Lyzeen« sowohl katholischer wie protestantischer Orientierung zu rechnen.

Ein wirklich markanter Unterschied zwischen den beiden Staaten existierte jedoch: in Deutschland bildeten die Studierenden an philosophischen Fakultäten (die damals noch alle geistes- und naturwissenschaftlichen Fächer umfassten) mit genau einem Drittel der ordentlich Immatrikulierten (oder 21.380) den größten Studenten-Block, während diese Studien in Österreich nur von etwas mehr als 5.000 Studierenden oder gerader 14,2 % der Studenten in Anspruch genommen wurden. Auch bezogen auf die männliche Bevölkerung (6,67 Philosophen auf 10.000 männliche Deutsche) ist die Vorliebe für die Philosophie ausgeprägt - in Österreich standen dem nur 3,64 Philosophen auf 10.000 männliche Österreicher gegenüber. In beiden Staaten dürfte freilich die ziemlich große Zahl von außerordentlichen Hörern (in Österreich 4.000, darunter viele Frauen, in Deutschland nicht publiziert) diese Zahlen etwas relativieren. Aber der Vorrang der Philosophen in Deutschland bleibt ganz unbestritten, auch die völlig entgegengesetzte Tendenz in Österreich. In Bezug auf diese Fakultäten war die Belastung mit Studierenden in Österreich auch geringer als in Deutschland: Pro Fakultät entfielen auf die 22 deutschen Fakultäten 791 ordentliche Hörer, auf die acht österreichischen jeweils nur 638.[41]

Erweitert man den Vergleich der österreichischen Verhältnissen auf die wichtigsten europäischen Staaten, so behauptete Österreich nicht nur gegenüber Deutschland, sondern auch gegenüber dem übrigen Europa in Bezug auf die Zahl der Hochschüler den Spitzenrang, bezogen auf die Einwohnerzahl:

Tabelle 2: Auf 10.000 Einwohner entfielen im Wintersemester 1910/11 in

Österreich	14,74 Hochschüler
Deutschland	13,19
Frankreich	11,30
Belgien	10,90
Schweiz	10,90
Niederlande	9,60
England	8,20
Italien	7,90
Ungarn	6,90
Russland	4,20

41 Haan, Streiflichter, 164.

Die österreichischen Hochschulen gehörten auch zu den größten Europas. Sieht man von Paris ab, wo etwa 16.000 Studenten immatrikuliert waren, galt die Berliner Humboldt- Universität mit etwa 9.700 Hörern als größte in Europa, schon gefolgt von der Wiener Universität mit fast 7.900 Hörern. Danach kamen München (6.905), Budapest (6.683), Neapel (5.336), Leipzig (4.900) und - schon - Lemberg (4.500). Im österreichischen Binnenvergleich folgte auf Lemberg die tschechische Universität Prag (3.430) vor Graz (1.675), der deutschen Prager Universität (1.557), Innsbruck (1.024) und Czernowitz (971).

Ursachen

Woher kamen diese für die Zeit um 1910 doch überraschend großen Studentenzahlen?

Unser Autor untersuchte drei Vergleichsgrößen, um diese Frage beantworten zu können:

Die Konfession

Als verantwortlich für diese »Überfrequenz« - wie man das damals benannte - wurde in erster Linie der enorme Zustrom jüdischer Studenten vor allem zu den juridischen und medizinischen Studien gesehen. Von 100 Hochschülern waren etwa 75% katholisch, 2,9% griechisch-orthodox, 4,3% evangelisch, 16,2 % israelitisch (Bevölkerung: 90,8 % katholisch, 2.3 % griechisch-orthodox, 2 % evangelisch, 4,6% israelitisch).[42] Die religiösen Minderheiten waren also durchwegs überdurchschnittlich unter Studenten vertreten, recht deutlich die Evangelischen, aber absolut hervorstechend die israelitischen. Einen Erklärungsgrund suchte der zeitgenössische Statistiker „(...) in dem vorwiegend städtischen oder, besser gesagt, nicht agrarischen Charakter der jüdischen Bevölkerung (...)." Aber er spricht auch von einem „elementaren Auftrieb", „(...) der das Judentum nach Jahrhunderte langer Niederhaltung in inferioren Lebensstellungen nunmehr unaufhaltsam zu kultureller Macht empordrängt."[43]

Stefan Zweig hat in seinem schönen Erinnerungsbuch die starke Bildungstendenz im Judentum seiner Kindheit und Jugend hervorgehoben.[44] Ob freilich

42 Haan, Streiflichter, 174. Die Quellengrundlage für diese Aussagen bildeten die von den Studierenden auszufüllenden "Nationale".

43 Haan, Streiflichter 175.

44 Stefan Zweig, Die Welt von Gestern. Erinnerungen eines Europäers, Erstauflage Stockholm 1944, hier zitiert nach einer Taschenbuchausgabe, Frankfurt/Main 1970 (die dem Autor bei der Suche nach dem Zitat am 10. 5. 2010 endgültig zerfiel): " Der eigentliche Wille des Juden, sein immanentes Ideal ist der Aufstieg ins Geistige, in eine höhere kulturelle Schicht. (...) auch der ärmste Hausierer, der seine Packen durch Wind und Wetter schleppt, wird versuchen, wenigstens einen Sohn unter den schwersten Opfern studieren zu lassen, und es wird als Ehrentitel für die ganze Familie betrachtet, jemanden in ihrer Mitte zu haben, der sichtbar im Geistigen gilt, einen Professor, einen Gelehrten, einen Musiker (...)."

stets nur der reine Bildungsdrang zum Hochschulstudium führte oder auch gewisse materielle Erwägungen, wird sich nicht generell entscheiden lassen. Gegenüber einem weit verbreiteten Vorurteil, wonach sich jüdische Studierende nur für Jus oder Medizin interessiert hätten, ist festzuhalten, dass sie auch in den technischen Studienrichtungen und sogar in der Tierheilkunde den zweiten Platz nach den Katholiken einnahmen, wie dies die folgende Tabelle zeigt.[45] Aber vielleicht waren die Juden nur die Vorreiter einer Bildungsexplosion, der mit einer gewissen Verzögerung auch die Andern folgen würden? Wie Gary Cohen gezeigt hat, lag der Höhepunkt an jüdischen Inskribenten in den 1880er Jahren. Im Wintersemester 1884/85 waren 61% aller Wiener Medizinstudenten jüdischer Konfession, von der Gesamtzahl der an der Wiener Universität Studierenden waren es 36%. Später sanken diese Verhältniszahlen, gleichzeitig sank die Zahl der Medizinstudenten dramatisch, bis 1899/1900 auf etwa die Hälfte der 1880er Jahre, der jüdische Anteil dieser kleineren Zahl war auf 39% gesunken. 1909/10 machten sie von einer wieder etwas gestiegenen Gesamtzahl nur 35% aus. [46]

Tabelle 3: Konfessionelle Struktur verschiedener Hochschulstudienzweige:

Konfessionen	Theologie	Jus	Medizin	Philosophie	Universität	Technik	Boku	Tierarznei	Montanistik	Summe
Kath.	1.530	9.373	3.221	6.726	20.850	8.476	888	662	482	31.358
Orthodox	193	202	254	269	918	226	18	17	27	1.206
Evang.	61	375	199	453	1.088	576	47	27	50	1.788
Israelit.	-	2.670	1.252	1.270	5.192	1.468	31	61	12	6.764
Sonst.	-	168	82	80	330	170	67	5	26	598
Sum.	**1.784**	**12.788**	**5.008**	**8.798**	**28.378**	**10.916**	**1.051**	**772**	**597**	**41.714**
In Prozenten										
Kath.	85,76	73,30	64,30	76,45	73,48	77,64	84,49	85,75	80,74	75,17
Orthodox	10,82	1,58	5,07	3,06	3,23	2,07	1,71	2,20	4,52	2,89
Evang.	3,42	2,93	3,97	5,15	3,83	5,27	4,47	3,50	8,38	4,29
Israelit.	-	20,88	25,03	14,43	18,30	13,45	2,95	7,90	2,01	16,22
Sonst.	-	1,31	1,63	0,91	1,16	1,57	6,38	0,65	4,35	1,43
Sum.	100	100	100	100	100	100	100	100	100	100

Der relativ große Anteil an orthodoxen Medizinstudenten wird übrig auf das Fehlen einer medizinischen Fakultät in Agram/Zagreb zurückgeführt, was sich auch an der großen Zahl von "Ausländern" unter den Hochschülern mit kroatisch-serbischer Muttersprache äußere (900 Ausländer, 345 Inländer),

45 Haan, Streiflichter, 177.
46 Cohen, Education, 167, Tab. 4/6.

wobei diese Ausländer zumeist als "ungarländische" spezifiziert werden.[47] Der Autor jener Studie verweist auf zwei weitere Faktoren, die übrigens beide für die Hochschulfrequenz durch die israelitische Bevölkerung kaum verantwortlich gelten konnten, nämlich Unterrichtssprache und Kronlandszugehörigkeit der Universitäten.

Die Kronlandszugehörigkeit[48]

Die geringste Hochschulfrequenz hatte Dalmatien, in aufsteigender Reihe gefolgt von Oberösterreich, Kärnten, Krain, dem Küstenland und Salzburg - alles Länder ohne eigene Hochschulen. Dann kamen mit Tirol und Steiermark schon zwei Länder mit Hochschulen, aber trotzdem geringer Frequenz. Die nächst höhere Position nahm Schlesien ein, dann Galizien (mit zwei Universitäten), sodann Böhmen (zwei Universitäten, zwei technische Hochschulen), Mähren (zwei technische Hochschulen) und die Bukowina (Universität), die letztere nur mehr übertroffen von Niederösterreich (mit Wien). Ob also im jeweiligen Land ein Hochschulstandort existierte, war von großer, freilich keineswegs Ausschlag gebender Bedeutung![49]

Tabelle 4: Inländische Hochschüler nach Kronlandszugehörigkeit

Kronländer	Inländ. Stud. nach Zugehörigkeit zu Kronld.		Bev. (österr. Staatsbürger) nach Kronland		Auf 10.000 Ew. entfallen Studenten
	absolut	in %	absolut	in %	
Galizien	9.771	26,5	7,980.477	28,5	12,24
Böhmen	9.631	26,1	6,712.944	24,0	14,35
Niederösterr.	5.693	15,4	3,264.110	11,7	17,44
Mähren	4.211	11,5	2,604.857	9,3	16,17
Steiermark	1.429	3,9	1,394.699	5,0	10,21
Tirol u. Vlbg.	1.039	2,8	1,049.169	3,8	9,90
Oberösterr.	675	1,8	843.146	3,0	8,01
Küstenld.	792	2,1	827.269	3,0	9,57
Bukowina	1.285	3,5	794.929	2,8	16,16
Schlesien	853	2,3	741.456	2,6	11,50
Dalmatien	497	1,3	634.855	2,3	7,83
Krain	490	1,3	520.327	1,9	9,44
Kärnten	338	0,9	387.072	1,4	8,73

47 Haan, Streiflichter, 178.
48 Haan, Streiflichter, 180 -
49 Vgl. ferner Cohen, Education, 78 f, der die Kronlandherkunft der Studierenden 18798/80 und 1909/10 vergleicht. Durch seine Methode der Errechnung des Anteils der Studierenden an den Jahrgängen der 19 - bis 22 -Jährigen verändern sich die Relationen doch etwas.

Kronländer	Inländ. Stud. nach Zugehörigkeit zu Kronld.		Bev. (österr. Staatsbürger) nach Kronland		Auf 10.000 Ew. entfallen Studenten
	absolut	in %	absolut	in %	
Salzburg	207	0,6	208.562	0,7	9,92
Summe	36.911	100,0	27,973.872	100,0	

(Die Zahl der inländischen Hochschüler differiert etwas von anderen Zahlen, wahrscheinlich, weil die Hörer der selbst. theol. Lehranstalten nicht nach Kronländern aufgeschlüsselt sind)

Nur vier Kronländer wiesen Hochschülerkontingente auf, die über dem Staatsdurchschnitt lagen: Niederösterreich (mit Wien), Mähren und die Bukowina (um ein Viertel über dem Durchschnitt) sowie Böhmen (um ein Zwölftel). Alle anderen Länder lagen darunter. Warum ein Land wie die Steiermark mit immerhin drei Hochschulen (Universität und Technik in Graz, Bergakademie in Leoben) eine so relativ geringe Hochschulfrequenz aufweist, ist nicht ganz klar. Der Autor vermutet, ähnlich wie in Tirol, dass die ausschließliche deutsche Unterrichtssprache die in beiden Ländern starken nichtdeutschen Sprachgruppen (Italienisch bzw. Slowenisch) vom Besuch der landeseigenen hohen Schulen abgehalten habe.[50] Außerordentlich erscheint nur die überaus hohe Studentenzahl der Bukowina, die ja einen stark agrarischen Charakter aufwies. Hier habe, so der Autor unserer Studie, die Gründung der Universität in Czernowitz 1875 zu jener ganz ungewöhnlich hohen Frequenzziffer geführt, die sich auch in der Erhöhung der Zahl orthodoxer und rumänischer Studenten ausgewirkt habe.[51] Eine den Sudetenländern eigene Besonderheit zeigt sich im »unnatürlichen Prävalieren des Technikstudiums«, das mit den vier technischen Hochschulen (bei nur zwei Universitäten) in diesem Raum begründet wird: In diesen Ländern überwogen daher nicht - wie sonst - die Juristen, die in Böhmen nur knapp 26%, in Mähren 22% und in Schlesien 21% der Studierenden ausmachten, sondern die Techniker mit 36% (Böhmen), 38% (Mähren) und 29% (Schlesien).[52]

Hochschulneugründungen, so die Schlussfolgerung unseres Autors, fassen nicht nur vorhandene Frequenzziffern zusammen, sondern verstärken sie fühlbar. Wird also irgendwo eine neue Hochschule gegründet, dann heißt das nicht nur, dass die landeseigenen Studenten nicht mehr anderswohin zum Studium wandern müssen, sondern vor allem, dass mehr Menschen als früher studieren werden. Das würde also bedeuten, dass neue Universitäten für die Ruthenen, Italiener und Slowenen den vorhandenen Druck etwa auf die Wiener Universität kaum verringern, dafür aber neue Schichten für das Studium interessieren würden (die »frequenzzeugende und befruchtende Wirkung der konnationalen Hochschuleinrichtungen«).[53]

50 Haan, Streiflichter, 182.
51 Haan, Streiflichter, 183 f.
52 Haan, Streiflichter, 186.
53 Haan, Streiflichter, 190, FN 1.

Die Nationalität

Nationale Hochschulen, wie sie für Deutsche, Tschechen und Polen existierten, verstärkten aus nahe liegenden Gründen die Hochschulfrequenz in der jeweiligen nationalen Gruppe - genau diese drei Gruppen hatten auch überdurchschnittliche Hochschulfrequenz aufzuweisen. Die höchste Hochschulfrequenz zeigten jedoch nicht die »Deutschen«, sondern die »Polen«; die »Tschechen« studierten hingegen überdurchschnittlich Technik (zwei tschechische technische Hochschulen!).

Tabelle 2: Anteil der Sprachgruppen an den Hochschülern:[54]

Sprache	Muttersprache der inländischen Hochschüler		Umgangssprache der österr. Staatsbürger		Auf 10.000 Staatsbürger entfallen inländische Hochschüler
	absolut	In %	Absolut	In %	
Deutsch	16.534	44,5	9,950.000	35,6	16,6
Tschechisch	8.588	23,11	6,436.000	23,0	13,35
Polnisch	8.392	22,6	4,968.000	18	16,9
Ruthenisch	1.470	4,0	3,519.000	12,6	4,2
Slowenisch	690	1,9	1,253.000	4,5	5,5
Serbo-kroat.	345	0,9	783.000	2,8	4,4
Italienisch	844	2,3	768.000	2,8	11,0
Rumänisch	300	0,8	275.000	1.0	11,0
Magyarisch	2	-	11.000	-	1,8
Summe	**37.165**	**100.00**	**27,963,872**	**100,00**	13,28

Abgesehen von der hier nicht lösbaren Frage, ob und inwieweit die „Muttersprache" inländischer Hochschüler mit der in den Volkszählungen erhobenen „Umgangssprache" tatsächlich so vergleichbar ist wie dies unser Autor praktischer Weise annimmt[55], und ob damit auch tatsächlich die »Nationalität«, also das nationale Bewusstsein eingefangen wurde, ist der Vergleich höchst interessant: Nicht die Deutschen führen relativ (wie man annehmen würde), in der Hochschulstatistik, sondern die Polen, freilich nur knapp vor den Deutschen, und beide vor den Tschechen. Alle drei Sprachgruppen liegen über dem Staatsdurchschnitt. Noch relativ nahe am Staatsdurchschnitt liegen – mit 11 Hochschülern auf zehntausend Sprecher - die Sprachgruppen italienisch und rumänisch. Das verwundert bei den Italienern nicht besonders, handelt es sich hier doch um eine vielfach in urbanen Verhältnissen lebende Gruppe. Aber die Rumänen ? Die gab es im alten Österreich bekanntlich nur in der Bukowina. Die Bukowina erhielt 1875 eine eigene Universität, zwar mit deutscher

54 Haan, Streiflichter, 191.

55 Wobei er die Gleichsetzung auch eingehend begründet, vgl. Haan, Streiflichter, 192.

Unterrichtssprache, aber wer im Gymnasium Deutsch gelernt hatte, konnte als Rumäne sozusagen „zu Hause" studieren.

Wie nicht anders zu erwarten, hatten die Deutschen die meisten Studienmöglichkeiten: Fünf Universitäten und vier technische Hochschulen, dazu die Hochschule für Bodenkultur, die Tierärztliche Hochschule sowie die Bergakademie Leoben. Trotzdem hatten die Polen eine noch höhere Hochschulfrequenz. Dafür wird die gute Ausstattung Galiziens mit Hochschulen (mit polnischer Unterrichtssprache) verantwortlich gemacht: zwei Universitäten (Krakau und Lemberg), eine Technische Hochschule, eine Tierarzneischule und ein landwirtschaftliches Studium an der Universität Krakau. Aber dominant blieb doch das Universitätsstudium, und da wieder Jus und Philosophie. In diesen Fächern sowie in Theologie und Medizin übertrafen die Polen die Tschechen ganz deutlich.

Für die Verteilung der tschechischen Studenten war wiederum die eigentümliche Verteilung der tschechischen Hochschulen verantwortlich: Nur eine Universität stand zwei tschechischen Techniken gegenüber. Daher auch die enorm hohe Zahl von Technikstudenten unter den Tschechen. Dagegen studierten relativ weniger Tschechen als Deutsche oder Polen Jus, Theologie, Philosophie oder Medizin.

Die genannten drei Nationalitäten machten etwa 76% der gesamten Bevölkerung Österreichs aus, die Hochschüler dieser drei Sprachgruppen jedoch etwas mehr als 90%. Die Nationen ohne »eigene« Hochschulen stellten fast 24% der Bevölkerung, aber nicht einmal 10% der Studierenden.[56]

Kolleggeldbefreiungen

Als eine der Ursachen für die großen Hörerzahlen vermutete der Statistiker übrigens, dass das Kollegiengeld in Deutschland doppelt so hoch war wie in Österreich (hier K 2,10) und nicht erlassen, sondern nur gestundet wurde, während es in Österreich »in largester Weise« zur Hälfte oder zur Gänze erlassen wurde (1910/11 genoss ein Drittel der österreichischen Studierenden Kollegiengeldbefreiung, ein Zehntel war total befreit).[57]

Die Kollegiengelder waren 1850 eingeführt worden, bis dahin gab es ein allgemeines Unterrichtsgeld von fl 30,-.[58] Jeder Vortragende erhielt von jedem Studierenden soviel Gulden pro Semester, als die Vorlesung Wochenstunden zählte (2 Stunden = 2 fl). Allerdings musste jeder ordentliche Professor in jedem dritten Semester eine unentgeltliche ein- oder zweistündige Vorlesung (collegium publicum) abhalten. »Bei einer stark besuchten Universität wie der Wiener erreichten die Kollegiengelder für einzelne Professoren 8.000 bis 9.000 fl im Jahr.«[59]

56 Haan, Streiflichter, 201.
57 Haan, Streiflichter, 166.
58 Engelbrecht, Geschichte, Bd.4, 225.
59 Engelbrecht, Geschichte, Bd. 4, 72.

Zu weitgehende Schlüsse dürfe man aus den Zahlen der Kollegiengeldbefreiungen nicht ziehen, meinte der Statistiker Stefan Graf Badeni, weil zur Bedürftigkeit auch noch besonders gute Studienleistungen kamen, die ebenfalls eine Grundbedingung für die Kolleggeldbefreiung waren. Im Staatsdurchschnitt waren in den 1890er Jahren etwa 20% halb oder ganz vom Kollegiengeld befreit, dabei lag die Zahl der Vollbefreiten immer deutlich über der Zahl der Halbbefreiten.

Tabelle 5: Verhältnis der vom Kollegiengeld Befreiten zu der Hörerzahl, Winter- und Sommersemester1898/99

Universität,WS1898/99	Hörer	Ganz befreit	In %	Halb befreit	In %	Begünstigt	In %
Wien	6.697	529	7,9	133	1,9	662	9,8
Graz	1.644	123	7,5	141	8,5	264	16,0
Innsbruck	1.087	134	12,3	44	4,0	178	16,3
Prag deutsch	1.326	157	11,8	109	8,2	266	20,0
Prag tschech.	3.066	699	22,8	314	10,2	1.013	33,0
Lemberg	1.901	423	22,2	248	13,1	671	35,3
Krakau	1.323	214	16,3	174	13,1	388	29,4
Czerno-witz	377	41	10,8	19	5,0	60	15,8
Summe	**17.421**	2.320	13,3	1.182	6,8	3.502	20,1

In Wien zahlten - auch über mehrere Jahre gerechnet - immer 88 - 89% der Studierenden das ganze Kollegiengeld, in Graz 84 bis 87, in Innsbruck 81 bis 83%. An der deutschen Universität Prag betrug dieser Prozentsatz zwischen etwa 79 und 83%, an der tschechischen hingegen zwischen etwas unter 68 und 70%. Noch tiefer lagen die Prozentsätze der Vollzahler in Lemberg (56 - 64%), in Krakau (65 bis 69%), in Czernowitz hingegen zahlten wiederum zwischen 80 und 84% das volle Kollegiengeld. Etwas verallgemeinernd kann man sagen, dass die Universitäten mit tschechischer und polnischer Unterrichtssprache "billiger" waren als jene mit deutscher. Nach Fakultäten waren die Theologen die günstigsten, in Lemberg und Krakau bildete bei ihnen die totale Befreiung die Regel, an den übrigen Fakultäten wurden 80 - 90 % der Hörer befreit. Bei den technischen Hochschulen war der Prozentsatz der Befreiungen insgesamt höher als an den Universitäten: 1893/94 zahlten von den etwa 2.500 Hörern an Technischen Hochschulen 64% das volle Kolleggeld, ganz befreit waren fast 27%, halb etwas mehr als 9, zusammen also 36%.[60]

Ob also tatsächlich die Kolleggeldbefreiungen einen wesentlichen Anteil an der »Überfrequenz« der österreichischen Hochschulen hatten, wird nicht ganz zu klären sein.

60 St. Graf Badeni, Statistik der Collegiengelder an den österreichischen Universitäten, in: Stat. Ms. NF V (26), 1900, 343 - 370.

Ausweitung der sozialen Rekrutierungsfelder

Dieses Thema wurde von unserm trefflichen Haan gar nicht angeschnitten. Es bestand sowieso weithin Übereinstimmung in der Meinung, dass der Schuster bei seinem Leisten bleiben, und dass höhere Bildung für Angehörige der unteren Volksschichten nur im Falle außerordentlicher Begabungen ermöglicht werden solle. Gary Cohen hat die soziale Zusammensetzung der Studenten an den beiden Prager Universitäten sowie an der Universität Wien analysiert.[61] Er unterschied dabei fünf große soziale Kategorien:

- die besitzenden Klassen, also die im Deutschen traditionell „Besitzbürgertum" Benannten, einschließlich des Großgrundbesitzes,
- die „educated professions", also das „Bildungsbürgertum" (höhere Offiziere und Beamte, Advokaten, Notare, Professoren an Universitäten und Mittelschulen, Naturwissenschaftler, Ingenieure, Architekten),
- die „alte" Mittelklasse, bestehend aus Bauern, Herrschaftsverwaltern, selbständigen Handwerkern und Kaufleuten,
- die „neue" Mittelklasse aus Pflichtschul-Lehrern, mittleren und unteren öffentlichen und Privat-Beamten, Buchhaltern, Angestellten,
- Schließlich „Arbeiter" – Fabriksarbeiter, unselbständige Handwerker, Handelsdiener, unqualifizierte Arbeiter und Taglöhner.

Die Wiener Zahlen für die Zeit von 1861 bis 1910 zeigen (mit Prozentsätzen um etwa 30%) Studenten aus dem Besitzbürgertum bzw. dem „alten" Mittelstand an der Spitze, wobei der alte Mittelstand ab 1880 langsam zurückging (von fast 33% auf knapp 27% bis 1910). Das Besitzbürgertum lag mit etwa 14 bis fast 19% (1880) an dritter bzw. (ab 1900) an vierter Stelle (17,7%) , zuletzt schon knapp verdrängt vom neuen Mittelstand, dessen Anteil von 11,6 % 1860 auf 18,4% 1900 angestiegen war (1910: 18,3%). Der Anteil der Arbeiterklasse sank von 9% (1860) auf weniger als 5% (1880) und lag 1910 bei 4,4%. An den Technischen Hochschulen lagen die Studenten aus den alten Mittelschichten weit voran, wobei die neuen Mittelschichten stark aufholten. Besitz- und Bildungsbürgertum studierten signifikant weniger an Technischen Hochschulen. Der Arbeiteranteil war höher als an den Universitäten, sank aber tendenziell ebenfalls.

Cohen vergleicht die Zahlen für Wien und Prag auch mit Globalzahlen für Preußen. An preußischen Universitäten führten 1911/12 Studenten aus dem Milieu des neuen Mittelstandes (32,6%) vor dem alten Mittelstand (29,1 %). An dritter Stelle lagen Studenten aus dem Bildungsbürgertum (21,1%), an vierter Stelle aus den besitzenden Klassen. Aus der Arbeiterschaft kam fast niemand. Im Vergleich dazu hatten an den drei Universitäten in Wien und Prag 1909/10 den höchsten Anteil an Studenten aus dem alten Mittelstand (31,1%), gefolgt von solchen aus dem Bildungsbürgertum. Die neuen Mittelklassen rangieren im Vergleich mit Preußen deutlich abgeschlagen an dritter Stelle (nur 20%), das

61 Cohen, Education, 179 – 211.

Besitzbürgertum war noch schwächer als in Preußen vertreten (14%). Wien allein sah allerdings anders aus, hier führten mit fast einem Drittel der Immatrikulierten Ankömmlinge des Bildungsbürgertums (32,6%) vor solchen aus den alten Mittelschichten (27%), während neue Mittelschicht und Besitzbürgertum fast gleichauf rangierten (18,3 % bzw. 17,7%). Neben der deutlich höheren Repräsentanz von Söhnen aus dem neuen Mittelstand in Preußen lag der zweite gravierende Unterschied im Vorhandensein von Arbeiterkindern: In Wien und Prag gemeinsam immerhin 5,8%, in Wien allein doch noch 4,4%.

Es wäre höchst interessant, Cohens Studie im Hinblick auf Fakultäten und Religionen der Studierenden weiter zu verfolgen, doch mangelt es hier am nötigen Platz. Interessant ist die – allerdings nur vorläufige, aber effektvolle - Schlussfolgerung, dass im Vergleich mit Deutschland, „Austrian higher education was expanding at a tempo that was somewhat faster than the evolution of its econonmic and social structures even in the Alpine and Bohemian lands."[62]

Reaktionen

Wenn sich in einer multinationalen Gesellschaft, wie jener der Habsburgermonarchie, selbstbewusste sprachnationale Einzelgesellschaften als zentrale integrative Elemente etablieren, wird das »nationale« Erklärungsmodell zur Erklärung der durchaus eigentümlichen altösterreichischen Hochschullandschaft jedenfalls zu berücksichtigen sein. Diese Hochschulen lehrten als staatliche Instrumente zur Zeit des zentralistischen Absolutismus durchwegs in deutscher Sprache (wenn es nicht noch irgendwo Reste von Latein gab). Mit der Konstitutionalisierung des politischen Lebens wurde die Hochschulpolitik zu einem jener Felder, auf dem sich eine gewisse Kompromissbereitschaft demonstrieren ließ. So wurde als Folgen der galizischen Autonomie zuerst in Krakau (1870), dann in Lemberg (1871) die polnische Vortragssprache eingeführt (die deutsche blieb für einige Fächer bestehen, die ruthenische erhielt 1879 einige Nischen zugesprochen), seit 1844 existierte eine technische Hochschule in Lemberg, dazu kam noch das Landwirtschaftsstudium in Krakau 1890. Den Tschechen kam man weniger gern und weniger rasch entgegen. Immerhin wurde unter Taaffe im Studienjahr 1882/83 die traditionsreiche Alma mater Carolina geteilt, eine rein tschechische Anstalt entstand. Schon 1869 war eine selbständige tschechische Technik aus dem Prager Polytechnikum verselbständigt worden, 1899 folgte die Brünner tschechische Technik.[63] Damit waren die Tschechen zwar noch keineswegs zufrieden, aber der Staat hatte ein gewisses Entgegenkommen gezeigt. Als man auch den Italienern gegenüber ein solches Signal setzen wollte, hatte man die vielleicht nicht besonders glückliche Idee, ein italienisches

62 Cohen, Education, 207.
63 Haan, Streiflichter, 206 f.

Parallelstudium an der Jus-Fakultät in Innsbruck (bzw. an einer eigenen, neuen) zu installieren, was zu wilden Protesten und Exzessen führte.[64] Auch die Bemühungen der Slowenen um eine eigene Universität waren vergeblich, immerhin wurden vom Unterrichtsminister Wilhelm von Hartel (Minister von 1900 bis 1905, übrigens der Sohn eines Webers[65] und damit ein schönes Beispiel für die Aufstiegsmöglichkeiten durch Bildung!) Habilitationsstipendien für junge Slowenen vergeben, womit ein zunächst noch kleiner Grundstock für eine künftige akademische Elite auch bei dieser Nation gelegt wurde.[66] Die (Serbo-) Kroaten hatten ja eine eigene Universität (aber ohne medizinische Fakultät!) in Agram, für österreichische Staatsbürger also im »Ausland«. Dennoch war der Bedarf nach einer nationalen Hochschule vielleicht nicht so bedeutend.

Versuch einer Zusammenfassung

Der hier ausführlicher referierte Bericht von Hugo Freiherrn von Haan charakterisiert die österreichische Hochschulfrequenz, aufbauend auf den Daten des Studienjahres 1910/11, als keineswegs zu billigenden Massenandrang. Er analysiert diese Situation zunächst einmal im internationalen Vergleich, sodann mit einem genaueren Blick auf die religiösen, regionalen und nationalen Komponenten des Phänomens. Vor allem im Vergleich mit dem Deutschen Reich, mit dessen Hohen Schulen ja die österreichischen vielfach in engen Beziehungen standen, zeigen sich eine Reihe interessanter Unterschiede: Dort, im Deutschen Reich, neben den wenigen großen Universitäten zahlreiche kleine an traditionsreichen Standorten; in Österreich neben der auch in europäischen Dimensionen sehr großen Wiener Universität weitere quantitativ sehr stark besuchte Universitäten, aber nur wenige. Im Jus- und Technikstudium übertraf das damalige Österreich (gerechnet pro Kopf der Bevölkerung) die deutschen Frequenzzahlen bei Weitem, ebenso beim Technikstudium. Umgekehrt bei Philosophie und bei den Handelsstudien: Die letzteren waren in Deutschland stark vertreten, in Österreich noch kaum. Die philosophischen Richtungen, in Deutschland ebenfalls sehr stark, spielten eine geringe Rolle. Für die großen Studentenzahlen konnte unser Gewährsmann einige Faktoren verantwortlich machen: Universitäten und Hochschulen im eigenen (Kron-)land bzw. (noch wichtiger!) mit der eigenen Muttersprache als Vortragssprache; und schließlich: Die besonders ausgeprägte Tendenz der

64 Engelbrecht, Geschichte, 317 f. - Übrigens waren die Slowenen entschieden gegen eine italienische Universität in Triest, was wiederum die Italiener ebenso unablässig forderten.

65 Wilhelm von Hartel (1839 – 1907), Altphilologe, ab 1900 gleichzeitig auch Vizepräsident der kaiserlichen Akademie der Wissenschaften in Wien, verdient um zahlreiche Publikations- und Editionsvorhaben, als Minister um den Bau der neuen Kliniken in Wien (9. Bezirk). Vgl. ÖBL Bd.2, 192.

66 Sergij Vilfan, Art. "Pravna znanost", in: Enciklopedija Slovenije Bd. 9, Ljubljana 1995, 235 - 237, hier 236, verweist auf mehrere Juristen, die durch solche Stipendien auf ihre spätere universitäre Laufbahn (die meisten tatsächlich in Ljubljana, seit 1919) vorbereitet wurden.

Angehörigen der israelitischen Religion zum Universitäts-, und hier wieder zum Jus- und Medizinstudium. Wobei diese Tendenz wiederum die dominante Rolle der Sprachgruppen Deutsch und Polnisch (und wohl nur in geringerem Umfang auch Tschechisch) in der Universitätsfrequenz verstärkte.

Zwei Fragen drängen sich auf. Die erste lautet: Waren die österreichischen Hochschulen tatsächlich so überfüllt, wie das die zeitgenössischen Klagen vermuten lassen? Im Verhältnis zu unseren Tagen waren die damaligen Studentenzahlen ja lächerlich gering. Warum das als so katastrophal empfunden wurde, war wohl eine Folge des explosiven Wachstums der Inskribentenzahlen gerade in den letzten beiden Jahrzehnten vor 1914. An der Wiener Universität wurde 1891/92 ziemlich genau 5.000 Hörer inskribiert, zu Ausbruch des Ersten Weltkrieges waren es mehr als 9.000.[67]

Tatsächlich gibt es genug Zeugnisse, die den Tenor der Ausführungen unseres trefflichen Haan voll und ganz teilen. Der von uns schon herangezogene Stefan Zweig spricht von der Wiener Universität »(...) mit ihren sechs- oder siebentausend Studenten, die durch Überfüllung den so fruchtbaren persönlichen Kontakt zwischen Lehrern und Schülern von vornherein hemmte (...)«, ohne positive Erinnerung.[68] Im Juni 1913 interpellierten mehrere (deutschnationale) Abgeordnete den Unterrichtsminister wegen der unhaltbaren Zustände an der medizinischen Fakultät der deutschen Prager Universität, wo für die Chirurgie 600 Hörer inskribiert seien, der Hörsaal aber kaum die Hälfte fasse; bei Operationen könnten nur die dem Operationstisch zunächst Stehenden etwas sehen, die hygienischen Zustände seien skandalös, usw. Diese Umstände wurden dem vermehrten Zustrom ausländischer, »namentlich russischer und südslawischer« Studenten zugeschrieben, es handle sich um eine »schwere Benachteiligung des deutschen Volkes«.[69] Und als der Ministerialrat Ritter v. Pollack eine Studienreise nach Deutschland zur Besichtigung mehrere technischer Hochschulen unternahm, berichtete er abschließend, die Professoren in Deutschland hätten ihm rund heraus erklärt, »(...) dass sie sich einen entsprechenden Unterricht unter den österreichischen Verhältnissen bei dem Mangel an Laboratorien und der verschwindenden Zahl von wissenschaftlichen Hilfskräften gar nicht vorstellen können (...).« Kein Österreicher, der einmal nach Deutschland als Professor gekommen sei, würde wieder zurück kehren - das habe ihm auch ein Österreicher, Professor Krainer[70] an der TH Berlin zu Charlottenburg, durchaus bestätigt.[71] Der Bericht Pollacks kam auch ins Finanzministerium, wo man schlicht

67 Engelbrecht, Geschichte, Grafik auf S. 514

68 Zweig, Welt, 78.

69 ÖStA, AVA, Unterricht - Präsidium, 1913, Karton 458, Nr. 1797, 20. Juni 1913. Die Interpellation blieb unbeantwortet, "mit Rücksicht auf erfolgten Schluß der XXI. Session des Reichsrates".

70 Paul Krainer (1869 - 1935), Sohn eines Chefkonstrukteurs der österreichischen Marine, studierte in Wien und Darmstadt Maschinenbau und war von 1906 bis 1935 o. Prof. an der TH Berlin. Mitbegründer der Schiffbautechnischen Gesellschaft. Vgl. ÖBL 4, 1969, 194.

71 ÖStA, AVA, Unterricht - Präsidium 1911, Karton 424, Nr. 1009.

und ergreifend mitteilte, es gebe kein Geld, worauf der Referent hinzufügte, eine Ausgestaltung der technischen Hochschulen sei dennoch unvermeidlich, weil sonst die Konkurrenzfähigkeit Österreichs »auf industriellem Gebiete« geradezu unterbunden würde.[72] Verschiedene Beschränkungen für technische Hochschulen waren übrigens in Bayern und Preußen in Kraft, auch für Wien verfügte der Unterrichtsminister, dass hier nur Studierende aus Niederösterreich und aus Kronländern ohne eigene Technik studieren dürften.[73]

Es gab also genügend Nachholbedarf. Dazu kamen die zahlreichen Wünsche nach neuen Universitäten und Hochschulen. Die Tschechen wünschten eine zweite Universität in Brünn (prompte Ablehnung der Deutschen!), dazu eine Tierärztliche Hochschule mit tschechischer Vortragssprache.[74] Den Italienern wollte man mit einer italienisch-sprachigen Jus-Fakultät in Innsbruck entgegenkommen, aber das scheiterte am wütenden Widerstand der deutschen (deutsch-nationalen) Innsbrucker Studenten. Eine italienische Universität in Triest wurde dafür von den Slowenen heftig bekämpft, der mögliche Kompromiss einer italienischen Fakultät in Wien fand bei den Italienern selbst keine Zustimmung. Die Forderung der Ukrainer (Ruthenen) nach einer Universität in Lemberg[75] mit ukrainischer Vortragssprache lehnten die Polen ab. Das Forderungspaket der Südslawen, die sich benachteiligt fühlten, weil es keine slowenische Universität gab, während die kroatische Universität in Agram/Zagreb keine medizinische Fakultät hatte und zudem stets Probleme mit der Anerkennung der kroatischen Diplome in der österreichischen Reichshälfte auftraten, enthielt, neben der Forderung nach der fehlenden slowenischen Universität und nach der Anerkennung der Studien in Agram auch die nach der Schaffung medizinischer Fakultäten in Agram und Belgrad (!).[76]

72 Ebd.

73 ÖStA, AVA, Unterricht - Präsidium 1912, Karton 444, Nr. 2081 vom 3. August 1912 - Protokoll über die Konferenz von Vertretern von Hochschulverwaltungen aus dem Deutschen Reich und Österreich (Zisleithanien) in Goslar am Harz vom 21. und 22. Juni 1912: Mehrfach numerus clausus und höhere Gebühren für Ausländer. - Die neuen, rigiden Vorschriften für Wien 1902 bei Cohen, Education, 117. Dennoch erhöhte sich die Zahl der Studierenden an der Wiener Technik von etwa 2.500 (1901/02) auf mehr als 3.200 im Studienjahr 1910/11. Ähnliche Restriktionen wurden auch für die übrigen Technischen Hochschulen verfügt, nicht immer zur Freude der Professoren (und, klarerweise, der Studenten). Cohen, Education, 118.

74 ÖStA, AVA, Unterricht - Präsidium, 1911, Karton 422, Nr. 516 vom 18.2.1911 - Eine neue tierärztliche Hochschule mit böhmischer Unterrichtssprache könne "(...) nicht in Aussicht genommen werden, da die zur Verfügung stehenden Mittel durch die im Zuge befindliche Reorganisation der bestehenden tierärztlichen Hochschulen, insbesondere jener in Wien (...)" in Anspruch genommen würden.

75 Z.B. ÖstA, AVA, Unterricht - Präsidium 1912, Kartin 444, Nr. 2139 vom 9. August 1912. - In zahlreichen ruthenischen Ortschaften Ostgaliziens werden Resolutionen in Angelegenheit der Universitätsfrage beschlossen, gefordert wurde darin die Errichtung einer ruthenischen Universität in Lemberg,

76 ÖStA, AVA, Unterricht - Präsidium, 1911, Karton 423, Nr. 864, 18.3.1911: Ausführliche Zusammenfassung eines Berichts des Landespräsidiums von Krain über diverse hochschulpolitische Forderungen der Slowenen, aber auch der Kroaten und Serben. Die

Die Minister standen allen diesen Wünschen eher defensiv gegenüber. Auf eine der beliebten parlamentarischen Anfragen nach der Förderung dieser diversen Hochschulwünsche antwortete das Unterrichtsressort, dass man die Entwicklung beobachte, derzeit keinen Grund zu weiteren Aktivitäten erkennen könne, dass man aber zur »Heranbildung von Lehrkräften an Hochschulen« der wissenschaftlichen Lehre in den Sprachen jener vier »Nationalitäten«, (Ruthenen, Slowenen, Italiener, Serbo-Kroaten) die eben keine »eigenen« Hochschulen hatten, vermehrt Förderungsstipendien vergeben werde.[77] Man bereite damit spätere mögliche Gründungen sozusagen vor.

Die Ursachen für die Bildungsexplosion zwischen etwa 1890 und 1914 sind vielfältig. Ganz spezifische lokale und regionale Gegebenheiten, wie der Existenz einer Universität in Czernowitz, die der Bukowina ein für ein Agrarland unerwartet hohe Studentenzahlen beschert hat, sind ebenso zu beobachten wie ganz allgemeine Tendenzen, etwa das Streben nach höherer Bildung als Voraussetzung für eine besserer Berufslaufbahn und – mit Matura – für das Einjährig-Freiwilligen-Jahr mit der Möglichkeit, zum Leutnant der Reserve aufzusteigen. Daneben steht das Streben der jüdischen Bevölkerung nach sozialer Emanzipation durch Bildung. Das langsame Wachstum an materiellen Möglichkeiten bei breiteren Bevölkerungsschichten hat ebenso wie die Zunahme von Schulen und Hochschulen Mitgliedern solcher sozialer Schichten den Zugang zu Matura und Hochschulstudium ermöglicht. Dagegen hat das Streben nach Studienmöglichkeiten für Frauen gegen den hinhaltenden Widerstand des Unterrichtsministeriums ebenso wie gegen den akademischer Funktionäre noch kaum Erfolge gezeitigt und fiel auch quantitativ nicht sehr ins Gewicht. Im Gegenteil: Mit den sechsklassigen „Lyzeen" wurde ein Schultyp gefördert, der keinen Maturaabschluss brachte, während Gymnasien für junge Damen praktisch nur als Privatschulen ins Leben traten. Aber als ab 1897 der Hochschulzugang für Frauen möglich wurde, stieg der Anteil an weiblichen Studenten dennoch rasch an und erreichte an der Universität Wien 1909/10 schon mehr als 7 Prozent, 1914/15 schon 15 Prozent.[78] Da diese Anteile an einer rasch wachsenden Inskribentenzahl erreicht wurden, war der Zuwachs an weiblichen Studierenden doch beträchtlich.

Erinnern wir uns nochmals des Zitats aus Gary Cohens grundlegender Studie, wonach das Wachstum der höheren Bildung in Österreich schneller

Forderung nach Anerkennung der Reziprozität mit Agram sowie die nach Schaffung von medizinischen Fakultäten in Agram und Belgrad sowie einer slowenischen Universität in Laibach /Ljubljana auf einer Zusammenkunft von Vertretern slowenischer, kroatischer und serbischer Kulturvereine auf Einladung der "Slovenska matica" aus Anlass des 100. Geburtstags des "Illyrers" Stanko Vraz, die von Dr. Franz Ilešič (Gymnasialprofessor in Laibach) zum 11./12.12.1910 einberufen wurde.

77 ÖstA, AVA, Unterricht- Präsidium, 1911, Karton 422, Nr. 515, vom 18.2. 1911, Antwort auf eine Interpellation des Abgeordneten Dr. Górski. - Man vergleiche auch Vilfan, wie Anm.66.

78 Engelbrecht, Geschichte, Bd.4, 292.

vor sich gegangen sei als die Entwicklung seiner ökonomischen und sozialen Strukturen. Die Bildungspolitik der Wiener Regierung hat diese von Zeitgenossen so beklagte Tendenz zur »Massenuniversität« keineswegs geplant. Der zweifellos bemerkenswerte und seit etwa 1890 rasch wachsende Ansturm auf Hochschulen und Universitäten kann jedenfalls nicht als Folge einer planvollen Bildungspolitik interpretiert werden, er ist vielmehr vielfach gegen den ausgesprochenen politischen Willen der Regierungen »passiert«.[79]

79 Robert Musil, Der Mann ohne Eigenschaften, Hamburg 1952, 35: "Es ist passiert, sagte man dort, wenn andre Leute anderswo glaubten, es sei wunder was geschehen; das war ein eigenartiges, nirgendwo sonst im Deutschen oder einer anderen Sprache vorkommendes Wort, in dessen Hauch Tatsachen und Schicksalsschläge so leicht wurden wie Flaumfedern und Gedanken." Nun ja.

Predrag Marković

University Education: A Shortcut to Modernity or a Blind Alee? Student Political Activism as an Agent of Modernization

Abstract: In this paper the author tries to analyze connections between the development of the university education, student political activism and modernization. It seems that university education is among the first spheres of society that has been "modernized/westernized" in the 19th century. As for the role of the student political activism, it has been an ambivalent one. Student political activists were more radical in the countries where they were isolated from the rest of the society. Even the greatest student rebellion of 1968 had no undisputed consequences upon the social development. Generally speaking, the main problem with universities since the 19th century has been the bureaucratic orientation of the entire education system, and the belief in "national/political mission" of the politically active students. Instead of becoming professionals, they rather became identity/political entrepreneurs.

Why a Shortcut?

The universities were important agents of profound social and cultural changes since their beginnings. The same is true for the student activism that emerged almost simultaneously with universities. Already in the 13th century, students in Paris and Bologna clashed with the church or with the city magistrates demanding more freedom.[1] Furthermore, universities were not only the bastions of the free political thinking. They have been crucial institutions for the overall modernization of a society. As Diana Mishkova wrote it, "Education was one of the first, if not the very first, modernized social sphere where the Western standards were adopted and institutionalized; thus education and universities themselves were among the first 'modern' and 'European' institutions in the Central and

1 J. Le Goff, *Intelectuels au Moyen Age* (Oxford: English edition, 1993), pp. 68-69.

South-Eastern Europe."[2] They really came before other modern institutions and social categories. Many societies developed universities before the modern social structure. Universities were decisive for the creation and social reproduction of the *Bildungsbürgertum.* The more eastward one went in Europe, the more important was a role of this subgroup within the *Bürgertum.*[3] Actually, one could claim that the professionals with university degrees resembled their Western counterparts more than any other social group. We could even paraphrase professor Kocka and say that they were *Ersatzbürgertum,* or a functional equivalent to the middle class in the Western sense of the word.

East-West Differences within Europe

Mishkova also pointed out the significance of universities as principal channels not only for academic and cultural transfer, but also for the transfer of all other features of the Western/ modern societies (until recently, for the most of the South-Eastern Europe, and perhaps for the most of the world, Westernization and Modernization were practically synonyms). It has been much easier to accept Western political, scientific, cultural and artistic ideas, especially when the intellectual elite was concerned, than to import some less transferable "items", such as technology, work ethic, etc. The more remote had "intelligentsia" been from other parts of the middle class, the more radical students' political movements were.[4] It seems that political activism of the students was reversely proportional to the level of development in certain societies. Nowhere could one have found greater contrast between the general level of a society and educated "intelligentsia" than in Russia during the 19th century.

In the Western Europe, students were active participants in the revolutions of 1830 and 1848. Victor Hugo immortalized the student revolutionaries of 1830 in *Les Miserables.* Their leader, Enjolras, was the only son of rich parents, from the South, "a priest of ideals".[5] According to John Plamenatz, students started the revolution of 1848 in Paris. In Germany they were only "a voice in the great chorus of the revolutionary movement" (Jarausch).[6]

However, nowhere was the student radicalism so widespread and as ardent as in the Tsarist Russia. It has been a good example for the hypothesis made

2 See the Mishkova's contribution to this volume.

3 J. Kocka, *Bürgertum im 19. Jahrhundert* (Göttingen, 1995); J. Kocka, "The Middle Classes in Europe", *The Journal of Modern History,* 67, December 1995, pp.783-806. Herafter J. Kocka, "The Middle Classes in Europe".

4 About distance between the ‚inteligentsia' and oth re parts od the middle class see J. Kocka, "The Middle Classes in Europe", p.974.

5 It is from chapter "ABC friends" from fourth book within the third volume differently paginated in different editions.

6 J. Plamenatz, *The Revolutionary Movement in France 1815-1871* (London, 1953), p.63; K. H. Jarausch, *Deutsche Studenten 1800-1970* (Frankfurt am Main, 1984), p.51. Herafter K. H. Jarausch, *Deutsche Studenten.*

above in the text that radicalism of the students grows with the distance from the rest of a society (especially from the middle classes). Alexander Herzen wrote that nowhere else did the contrast between the "common life" and "education" reach such proportions as among the Russian nobility.[7] Actually, most of this "nobility" were declassed small aristocrats, noble only by name, but living from poorly paid administrative and intellectual professions. The curious fact is that the percentage of priests' sons among student activists was proportionally high.[8] However, one should not jump to the conclusion that radicalism of the Russian students was somehow connected to the eschatological and millenarian traditions of the Russian Orthodox Church. Neither should their revolutionary zeal be reduced to the social frustrations, as the author from the previous footnote (Feuer) implied by accentuating an origin from declassed families. Some of the most famous Russian student revolutionaries came from the very top of the society. (Sofia Perovskaya, for example, was a daughter of the former military governor of the Saint Petersburg). Furthermore, one could find a faith in a social mission among many student activists coming from privileged social groups, from the above mentioned Hugo's Enjorlas to the students of both Americas in the 1960s. Not to mention the first generation of the post colonial Third World leaders, who had very often been the descendants of political elites educated in Western capitals. It seems that in the 19th century Russia, like in many 20th century developing societies, students believing in their special social role tried to find a 'shortcut' to a bright future, a way out from the backwardness, injustice and poverty. The Russian students mixed the quasi religious sense of the mission with a "scientific" worldview, like Bazarov, the hero of Turgenev's novel *Fathers and sons.* Therefore, they were the first to accept Marxism, organizing commemoration at the time of Marx's death in 1883. Marx himself was surprised by the fact that the first translation of the *Kapital* was in Russian, noticing thereafter that Russian aristocratic students educated in the West were inclined to the most extreme Western ideas.[9]

However, Russian students anticipated the future activities of all student political radicals in several ways. For example, a specific dressing code designed to stress the rebellion against the system, such as long hair "patented" by German students *Burschenschaften,* or the acceptance of the lower classes "fashion" that resembles *blue jeans* fashion also initiated by American students one century later. "Going to the people" movement organized by *Narodniks* in 1870s had some similarities to the Freedom Summer of the elite American students in 1964.[10]

7 A. Herzen, *My Past and Thoughts:The Memoirs of Alexander Herzen, Vol. 2* (London, 1924), p. 141.

8 L. S. Feuer, *The Conflict of Generations. The Character and Significance of Student Movements* (London, 1969), pp.113-116. Hereafter L.S.Feuer, *The Conflict of Generations.*

9 L. S. Feuer, *The Conflict of Generations,* p. 119; K. Marx, *Letters to Dr. Kugelman* (New York, 1934), pp. 77-78.

10 L. S. Feuer, *The Conflict of Generation,* pp. 97-98, p. 128; for blue jeans see E.Hobsbawm, *The Age of Extremes* (New York, 1996), p.331. Hereafter E.Hobsbawm, *The Age of Extremes*; for Freedom Summer in A. Marwick, *The Sixties* (Oxford-New York, 1998), pp. 565-569.

On the other hand, the unique trait of the Russian students' political activism was violence demonstrated by both sides in this war of terror. From the first student protest in Harkov in 1858 to the 1905 revolution, students and the Tsarist regime were engaged in a literally mortal combat. In 1861, 43% of the St. Petersburg university students were arrested, while in the 1870s, 2.5% of the Moscow students were jailed every year. On the other hand, nowhere else did students kill so many state officials. The tsar Alexander II himself had been a target of several assassination attempts (1866, 1879, 1880, 1881) before he was murdered in 1887. Most of the assassins were ex- students.[11]

The 19th Century Serbian Experience: "Pale, Young Men with Long Hairs"

The quotation comes from Slobodan Jovanović who continues "....they went in groups always discussing something."[12] Even before the real University was established (in 1905), the Belgrade students had been restless. The first prohibition of a student organization occurred in 1851, the first "students" strike in 1858, a year of the liberal St Andrew Assembly. Then they rioted regularly every few years. Some of the riots were in a dominant, liberal spirit of the time. For example, in 1861 students protested against the regime's attempt to force students to go to the church on Sundays. In a petition they asked for a religious freedom and for a rule of law. Two years later, Belgrade students demonstrated in support to two professors who had proposed Garibaldi as a member of the Serbian Academy of Sciences and Arts.

During the 1870s, the Serbian students were influenced by Russian *Narodniks* and nihilists. Jovan Žujović, a scientist and a politician, claimed that in this decade, almost all students knew and read Russian. According to Jovan Skerlić, a famous Serbian literate and a critic, Serbian students "admired" Chernysevsky. During the 1890s, Belgrade intellectuals could have read direct references to Marx and Engels in the magazine *Delo*, and not from Russian translations as before.

After 1900, the significance of the student activism grew, with the legitimacy crisis of the Obrenović dynasty. The students went on a successful strike that lasted throughout the spring semester in 1902. They decisively contributed to the overthrow of the Obrenović dynasty in 1903, because the students were the organizers of the March demonstrations, when several participants were killed by the police. These demonstrations finally discredited the Obrenović regime, which was overthrown two months later.[13]

11 L. S. Feuer, *The Conflict of Generation,* p. 127; J. N. Westwood, *Endurance and Andeanour. Russian History 1812-1912 (*Oxford, 1993), pp. 99,112, 116-118.

12 Slobodan Jovanović, *Vlada Milana Obrenovića* (Beograd, 1931), p. 261.

13 P. Marković, "Predistorija studentskog pokreta- uporedna pesrpektiva" [a History of Student Movements- a Comparative Survey up to World War II], *Istorija 20.veka,* 1, 2001, pp. 19-32.

The students enjoyed a high esteem in the Serbian society. After one clash with police in 1902, the police officially expressed regret because their officers had been forced to treat students "as any other rascals, at the expense of the prestige of our highest educational institution."[14]

Students themselves were sensitive to their public image. Several riots broke out because they felt insulted. In 1882, students interrupted a theatre play *Rabagas,* which allegedly mocked the radicals and socialists. Twelve years later, in 1894, they attacked and destroyed several coffeehouses, for the singers there had made ironical couplets about students.[15]

Turn to the Right in Europe after the WWI

In the interwar time, the political mood of students changed in line with the general crisis of the middle classes and liberal values in this period. In almost all European countries, students became more nationalist and more right wing oriented. The nationalism of the students' movements was not a novelty, for the first *Burschenschaften* at the beginning of the 19th century in Germany had been nationalist organizations.[16] The same is true for the revolutions of 1848. The novelty of the interwar period was that, at least in Europe, nationalism lost its connection with liberal and emancipatory ideology. It was especially the case in the countries frustrated with the outcomes of the Great War. So, the German revolution of 1918 was in Meinecke words, "a revolution without students", which was in a dramatic contrast to 1848. During the Weimar Republic, German students mostly disapproved of the parliamentary regime. From 5% to 10% of German students were NSDAP members as early as 1930. In Italy, 13% of the fascists were students, even before the fascist rise to power.[17] In Serbia, the situation was the opposite.

"The Red University"

It has been a common position in the Yugoslav historiography after the WWII that the Belgrade University was a "cradle of the Communist cadres" in the interwar Yugoslavia. The political activity of differently oriented students has been mostly neglected. However, the very fact that out of 1322 "people's heroes",

Hereafter P. Marković, "Predistorija"; From the same author, "Die Vorgeschichte der serbischen Studentenbewegung im europäischen Kontext" , *Comparativ* 14, 5/6, 2004, pp. 173-198. Herafter P. Marković "Die Vorgeschichte".

14 M. Vojvodić,"Demonstracije velikoškolaca u Beogradu 1902.godine", in *Univerzitet u Beogradu 1838-1988, (*Beograd, 1988), pp.774-786.

15 P. Marković, "Predistorija", p. 24.

16 K. H. Jarausch, *Deutsche Studenten,* pp. 35-38.

17 K. H. Jarausch, *Deutsche Studenten,* pp. 118-214; E.Hobsbawm, *The Age of Extremes*, p. 122.

313 or 23.68% were students (mostly from the Belgrade University) shows the importance of students in the Yugoslav Communist movement and in the partisan resistance.[18] The proportion of students among the "people's heroes" was almost 230 times bigger than the proportion of students in the general population (in 1939, there were 16,978 students in approximately 15 million of Yugoslav population).[19] Furthermore, the majority of the student participants in the Communist movement and resistance came from the Belgrade University.

The left oriented students changed their political agenda during the interwar period. During the 1920s, before the abolishing of the parliamentary regime in 1929, the main student's objective had been the autonomy of the University. Thereafter, one of the first signs of the limited liberalization of the regime was the demonstration around the biggest students' dorm in 1931. In this and the following years, students tried some of the tactics used in later periods by students all over the world, such as an occupation of lecture halls and dorms. Student leftist activists attracted more public attention and sympathy during the Popular Front phase (1935-1939), for they were the most vocal antifascist group within the society. They temporarily abandoned antifascist rhetoric after the sudden reversal of the Soviet foreign politics after August 1939.[20] But eventually, students regained the leading role within the Communist resistance after the occupation in 1941.

Why the Belgrade students joined the ranks of the Communist Party in such numbers? And more to the point, how did they obtain the leading role within the Communist wartime resistance, concerning that the Communist Party had in principle been suspicious of intellectuals? Similarly to all other student movements, Belgrade students in this period were not children of the poor. If not from the elite, they came from middle class families. Although, the statistics of the interwar Yugoslavia is very deceptive, for it tracks the occupation rather than social status. This means that the statistics does not differentiate between the rich and the poor "peasants" or "artisans". Nevertheless, the proportion of the students coming from peasants' and workers' families grew faster than the proportion of the other social groups in the period 1930-1940.[21] Even so, the students coming from villages were mostly children of wealthier peasants. Their origin from the respected peasant families became extremely important during the WWII, when many of them became leaders of the resistance fighters in their village communities. In addition, the politics of the occupying forces and some quislings ("ustashas" in the first place) unintentionally cleared the social ladder. Namely, Germans took the majority of officers and middle aged soldiers as war prisoners. "Ustashas" simply exterminated or forced to emigration the

18 Lj. Petrović, "Narodni heroji u jugoslovenskom društvu 1942–1980. godine, Prilog istraživanju položaja boračkih elita u posleratnoj Jugoslaviji", *Vojnoistorijski glasnik,* No. 1–2, Beograd, 2001.

19 *Jugoslavija 1918-1988.Statistički godišnjak (*Beograd, 1989), p. 368.

20 P. Marković, "Die Vorgeschichte", pp. 173-198.

21 *Statistički godišnjaci Kraljevine Jugoslavije,*1930 (pp. 346-347); 1935 (pp. 320-321); 1940 (pp. 364-365).

traditional Serbian elite in Croatia and Bosnia and Herzegovina, creating a social and generational vacuum. It opened an additional political space for the younger leaders, especially students and ex-students. After the literal destruction of the old society, their vision of the new society became more convincing.

Educational Explosion

After the WWII something that could be named „educational explosion" took place. Before the WWII even Germany, Britain and France had no more than 150,000 university students (one student per one thousand inhabitants). After the WWII, number of university teachers in these countries surpassed this number. In Germany, the percentage of students tripled between 1937 and 1957 (from 0.72% to 2.38% of the generation cohort), rising to 4.2% in 1960. Even in the USA, which already in the 1940s had the biggest proportion of students, the so called "G.I. Law", which enabled free university education for the war veterans, produced millions of students. This „educational explosion" was even more dramatic in the developing countries. In some of them, such as Ecuador, the percentage of university students among the general population grew to 3.2%.[22] A greater demand for jobs changed the ways of life and education everywhere. University education was not a privilege of the rich anymore. Hartmuth Kaelble compares this process without a precedent with the *Alphabetisierungprozess* in the 19th and at the beginning of the 20th century.

This educational explosion was by no means an undisputed process. In some countries the university education rose faster than other kinds of education. In Egypt, for example, the percentage of the university students within their generation cohort in 1960 was bigger than in Germany. On the other hand, the percentage of children in the age 6-11 attending school was only 40%.[23] This disproportion deserves a special attention. We are going to address this issue later in this text.

Apolitical 1950s?

In the beginning, democratization of the university education did not increase a political engagement of the students. On the contrary, everywhere social scientists complained about the indifference, egoism and conformism of students in the 1950s. David Riesman ironically called this generation "cool student". In Italy one coined for them a name "3M Generation" (Mestiere-Maccina-Moglie; Workplace-Automobile-Wife).[24] Even at the beginning of the 1960s, two "experts" from two different ends of the world agreed about the non

22 E.Hobsbawm, *The Age of Extremes*, pp. 295-296; K. H. Jarausch, *Deutsche Studenten*, p.215; M.A.Jones, *The Limits of Liberty. American history 1667-1992* (Oxford-New York, 1995), p. 588.
23 *The Cambridge History of Africa*, Vol. 8 (Cambridge, 1984), p.180.
24 Quoted by: G.Stassera, *Death of an Utopia* (New York, 1975), p. 4.

to make money in this country. Contrary to the regime intentions, most of the scholarships went to the children of state officials.[28]

In spite of the efforts of the government, students were frustrated by the low living standards. They rioted in 1954 against an increase in prices in the biggest dormitory of the region (Studentski grad – the Student City, where several thousand students lived). Despite the clashes with the police on horses, the highest Party officials Aleksandar Ranković and Veljko Vlahović (the latter was a leader of the student movement in 1930s) suggested mild punishments for rebellious students. Only few students lost scholarships, even fewer were temporarily expelled from the University. The riots of 1959 were much more interesting, for they broke out in several cities almost simultaneously (Zagreb, Rijeka, Skopje, and Belgrade). They were called "Cafeteria riots" for they were triggered by the bad quality of the food in the students' cafeterias.[29] These demonstrations would have stayed curiosities, had they not indicated a broader issue. Namely, the rising expectations did cause frustrations among the growing body of students, in spite of the all pampering of the generally benevolent regime. It was going to have more serious consequences in the connection with other frustrations, such as the nationalist ones.

1968: a Year of Global Dreams

There are few better researched topics in the social history of the 20th century than the '68 student rebellion. The new books emerged periodically, mostly in the jubilee years (1978, especially 1988 and 1998 when the 68ers were fully established, somewhat less in 2008). Even in the underdeveloped Serbian social history research, this topic got more attention than most of the other issues of the period (actually, no other topic from the period after the 1950s is so well covered). 2008 was particularly fruitful in Serbia, when the aged 68ers were in the very hearth of the establishment.[30]

The results of the 1968 were ambivalent. The rebellion failed to produce political change, it in some cases even frightened middle class voters to vote

28 D. Bondžić, *Beogradski Univerzitet 1945-1952* (Belgrade, 2004), pp. 329-339. Hereafter D.Bondžić, *Beogradski Univerzitet*; D. Bondžić, *Univerzitet u socijalizmu* (Beograd, 2010), pp. 449-484. Herafter D. Bondžić, *Univerzitet u socializmu.*

29 D. Bondžić, *Univerzitet u socijalizmu,* pp. 428-430.

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for right wing politicians (In France and the USA). But, it put in motion a far reaching cultural revolution.[31] This year changed everything in the realms of counter culture (that later became a main stream culture), gender relations, identity politics, ecological consciousness, etc. In a word, in almost all areas but the politics itself.

The student revolt of the late 1960s was global not only because the ideology of the revolutionary tradition from 1789 to 1917 was universal and internationalist, but because the world, or at least the world in which student ideologists lived, was genuinely global for the first time. The same books appeared, almost simultaneously, in the student bookshops in Buenos Aires, Rome and Hamburg (in 1968, almost certainly including Herbert Marcuse). The same tourists of revolution crossed oceans and continents from Paris to Havana, from Sao Paolo to Bolivia. The first generation of humanity to take rapid and cheap global air travel and telecommunications for granted, the students of late 1960s had no difficulty in recognizing what happened at the Sorbonne, in Berkeley, in Prague, as a part of the same event in the same global village in which, according to the Canadian guru Marshall McLuhan (another fashionable name of the 1960s) "we all lived."[32]

Despite the criticism, the '68 movement still occupies the minds of its contemporaries, as well as various scholars and artists for its essential romantic and idealistic nature. The basic fact about 1968 is that in this year, a most privileged generation in entire humane history rebelled for higher causes. Namely, the baby boomers generation which came to universities in the late 1960s had less reasons to be angry than any other previous or next generation. They were used to living better every year, to expecting good and secure jobs. And yet, they rebelled because of the Vietnam, because of human rights and social injustice. This was a rebellion of the people who were hungry for freedom and justice, not for bread. We could have hardly imagined such an agenda deprived of any rational "interest" in any other period than in 1968.[33]

1968: A Yugoslav Experience

The outbreak of the 1968 rebellion in Yugoslavia, first in Belgrade, then in almost all university centres, deeply shocked the Communist nomenclature. Although the first reaction of the police had been brutal, later developments show a very peculiar approach to the student protesters. Already in the first days, a highest delegation of the state officials visited students (Miloš Minić, Veljko Vlahović, Stevan Doronjski and Branko Pešić). One could have hardly

31 E. Hobsbawm, *The Age of Extremes*, pp. 444-445.

32 Ibid., pp. 446-447.

33 P. Marković, *Godina kada je svet sanjao zajednički san, a Beograd bio svet (introduction to the catalogue of the exibition Juni '68), Studentski protest u Beogradu* (Beograd,2008).

imagined such a high profile visit anywhere else, from Berkeley to Sorbonne, not to mention Prague or Warsaw. Perhaps their own past in 1954, being themselves student leaders played its role in such a relatively benevolent attitude. In the end, on 9 June, came the most surprising official reaction. Tito himself seemingly supported students. He said how he was happy "that we have such mature youth", but implicitly he also accused "foreign elements" (he mentioned various enemies in a single sentence; Djilas, Ranković and Mao followers) who had tried to "infiltrate." Anyway, it was not only internal, but also an international triumph. Even the conservative *Frankfurter Allgemeine Zeitung* wrote that Tito had shown more political wisdom than De Gaulle.[34] The repression came later.

As for the nature of the student rebellion in Yugoslavia, it resembled the Western student movements more than those in Poland and Czechoslovakia. In fact, the Polish students who were chronologically among the first who raised (in March 1968) and who inspired many others in Europe, from Daniel Cohn-Benditt to Belgrade student organizations, demanded intellectual and artist freedom too, but their principal request was a patriotic (a nationalist?) one. Their rebellion was triggered by a ban of the Mickiewicz's play *Dziady* (Ancestors), because of its anti-Russian message.[35] Even one of the most prominent Western student movements, the German one, was perhaps not a nationalism free movement. One of the veterans, Rabehl, claimed in the late 1990s, that he and Dutschke had fought for the German independence from the USA. Such an attitude caused an avalanche of revolts, as the other German '68ers accused Rabehl of right wing extremism.[36] In Yugoslavia, situation was exactly the opposite one. As Dennison Rusinow remarked: "It was perhaps the first (we would add the last as well, P.M.) time in the fifty years since the creation of Yugoslavia that ethnicity played no role in an important political event."[37] Therefore, more nationalist oriented politicians, such as the leaders of the Croatian Spring, tried to downplay 1968 in Zagreb, claiming that the student strikes of 1971 were much more popular among the Croatian students. The first exclusively nationalist student movement in Yugoslavia occurred among the Albanian students in November 1968. There were no social demands among their slogans (except maybe about "colonialist politics toward Kosovo"). These demonstrations actually belonged more to the Croatian students' demonstrations of 1971, than to those of 1968.[38]

34 "Kaiser, Volk und Adel", *FAZ,* 12.06.1968.

35 J. Eisler, "March 1968 in Poland", in C. Finke-P. Gassert-D. Junker, *1968: The World Transformed* (Washington, 1998), pp. 237-253; *Jun-Lipanj 68,* pp. 35-42.

36 P. Marković, "Studentski pokret u Jugoslaviji 60-ih godina 20.veka: između nacionalizma i internacionalizma, između reformizma i dogmatizma", in .H. G. Fleck-I. Graovac (eds.), *Dijalog povjesničara/istoričara 7* (Zagreb, 2003), pp. 393-414. Hereafter P.Marković, "Studentski pokret u Jugoslaviji 60-ih godina".

37 D. Rusinow,*The Yugoslav Experiment 1948-1974* (London, 1977), p. 234.

38 S. Dabčević-Kučar, *71-hrvatski snovi i stvarnost* (Zagreb, 1997), p. 88; P.Marković, "Služba državne bezbednosti i albanske demonstracije 1968. godine", *Istorija 20.veka,*1-2, 1999, pp. 169-180.

There is another ambivalent issue concerning the student demonstration of 1968 in Yugoslavia. Were they too much influenced by the fashionable New Left ideas, and hence against the painful market reforms of 1965? Already on 30 September 1968, members of the Central Committee Commission for the Ideological and Political Work at their session accused the students for ultra-radical and ultra-leftist thinking. This attitude has been accepted by some historians. John Lampe claims that the student demands for social justice and equality allowed Tito and Kardelj to more easily abandon market reforms.[39] Truly, many student demands were aimed against inequality, against the privileges of the "red bourgeoisie" ("a wheel of a Mercedes is not a wheel of history", said one of the slogans). One could compare student protesters with religious dissenters in the Middle Ages. They both had to conceal their basically subversive ideas by quoting "holly texts" and by claiming that they only defended the purity of "original" faith. The students also criticized the establishment for abandoning the official socialist ideals. Such ideological "purism" included a psychological component. Namely, among the protesters there were many children of the pre-war political activists and the WWII veterans. This generation had often been patronized by their parents, criticized by newspapers and teachers, for their "easy" and "spoiled" life. Rebellion gave them an opportunity to prove a real revolutionary spirit, tacitly abandoned by the parent generation.[40] And of course, they were willing to abandon the ideals, even for the sake of a career. It happened everywhere, especially in poorer countries, where jobs in the state and party apparatus were the most desirable jobs. Like in Mexico, where "the more revolutionary they were as students, the better jobs they were likely to be offered after graduation."[41] This dependence from the state hides one of the principal weaknesses of the student activism as an agent of the modernization.

"The More Students, the Better"?

One of the stereotypes concerning students is that an increase of the university education automatically brings progress and modernity. We have already mentioned the case of Egypt, where the percentage of university students rose faster than percentage of those attending primary schools. Such a development resembles a hydrocephalus with a big head and a small body. Something similar happened in Yugoslavia. A percentage of illiterate dropped modestly. For example, from 1948 to 1971, it dropped from 25.4% to 15.1%. In central Serbia these percentages were 27.3 and 17.7%, respectively. The more backward a region

39 P. Marković, "Studentski pokret u Jugoslaviji 60-ih godina", p. 406; J. Lampe, *Yugoslavia as History* (Cambridge, 1996), pp. 295-296.

40 Such an attitude is frequent among interviewees in Đ. Malovrazić, *Šezdeset osma.Lične istorije.*

41 E. Hobsbawm, *The Age of Extremes*, pp. 299-300.

was the bigger was the jump in university education, but also the gap between those with university degrees on the one side, and those without any education on the other. The latter did not decrease as it had been expected. In Kosovo in the period from 1948 to 1971 the percentage of illiterate not even halved, i.e. from 62.2% to 32.2%.[42] The percentage of university educated people in Kosovo rose in the period from 1953 to 1981 by amazing 33 times, from 0.1% to 3.3%. In the most developed Republic of Slovenia this rise was modest 7.37 times (from 0.8 to 5.9% of the population). In 1981, within the generation cohort from 25 to 34 years, there were 10.6% students among the Kosovo Albanians, and 9.9% among Slovenes.[43] At the same time, the number of people without any education sunk in Slovenia 4.2 times (from 15.2% to 3.6%) and in Kosovo only 2.7 times (from 71.2 to 27.9%).[44] In 1978, the number of students per 10,000 inhabitants in Kosovo was bigger (299) than in central Serbia (237), Slovenia (158), Germany (81), USSR (190), Romania (77) and even the USA (290).[45] According to these percentages, Kosovo should have become a knowledge based prosperous society. It did not happen. Why?

Why Growth of Universities does not Inevitably Launch Modernization?

The case of Kosovo is only the most absurd one. Many other societies in the region had a similar problem with university education. It is, roughly speaking, in the effectiveness and the purpose of the university education. As early as in the 19th century, the universities were oriented to produce people for state apparatus in the whole region. That meant too many lawyers and philosophers and too few engineers and physicians. This has been proven by the contributions of Trgovčević and Preshlenova in this conference. What is wrong with that? Were not Prussia and France built upon educated bureaucracy?

We are coming to the core of the issue. What is a personal and a social purpose of the university education? The most politically and socially active students in the region have rarely wanted to be only professionals and experts. Their surrounding also did not want them to be "mere" specialists. They were meant to be the "leaders". And this led to such an imbalance between production-oriented and politically-oriented professions. In these backward societies, where politics has decisively determined most of the personal and social gains, intellectual career has often been only a waiting room for the political/national work. That

42 *Jugoslavija 1918-1988. Statistički godišnjak,39; Yugoslavia 1945-1985,* Federal Statistic Office, pp. 112,114,118. Hereafter *Yugoslavia 1945-1985*; *Društveno ekonomski razvoj Socijalističke republike Srbije 1950-197* (Beograd, 1972), pp. 8-10.

43 M. Blagojević,"Obrazovna struktura jugoslovenskog društva", *Socioliogija 1-2*, 1986, pp. 43-62.

44 *Yugoslavia 1945-1985,* p.198.

45 B. Prpa, *Moderna srpska država 1804-2004.Hronologija* (Beograd , 2004), p. 369.

was especially the case in the communities that lived in foreign or multinational states. Their intellectual members often became identity/political entrepreneurs. By building and defining their national identity and/or political community, they could also secure their existence.

Aleš Gabrič

From Gender Segregation to Gender Equality in the School System

The purpose of this paper is not to discuss the education of women or female education, as this topic is often discussed separately from the schooling of the other gender. The paper will focus on the opportunities for equal integration of both genders into different stages of education, which only a few papers that otherwise generally touch upon what is described as female education have dealt with in detail.[1] Usually this issue is also overlooked in the more extensive reviews of the Slovene schooling.[2]

The modern Jesuit school system, which reflected the viewpoints of the Roman Catholic Church, was, of course, inaccessible to girls. Even after the state enactment of the elementary education with the Maria Theresa's 1774 reform, the school system provided for the separation by gender. For example, in 1805 it was written into the political constitution of the Austrian schools that in rural schools, where boys and girls sat together in a single classroom, »girls should be separated from boys, partly due to the promotion of morality and partly because of different education with regard to gender«. In the cities separate schools for girls and boys were to be established. Girls could only attend the 3rd year of the main schools in the case that no special schools for girls were located in that city and not enough boys were enrolled that year.[3] At the special girls' schools, women's handiwork was emphasised. The traditional or conservative nature of

1 For more see the two miscellanies on female education: Tjaša Mrgole Jukič et al. (eds.), *Izobraževanje in zaposlovanje žensk nekoč in danes* (Ptuj: Zgodovinski arhiv, first miscellany in 1998, second miscellany in 2000). See also: Tatjana Hojan, »Žensko šolstvo in učiteljstvo na Slovenskem v preteklih stoletjih«, *Zbornik za historiju školstva i prosvjete*, 4, 1968, pp. 47-81; Tatjana Hojan, »Slovenske učiteljice ob koncu 19. stoletja«, *Šolska kronika — Zbornik za zgodovino šolstva in vzgoje*, 7 — XXXI — 1998, pp. 134-149; Mirjam Milharčič-Hladnik, *Šolstvo in učiteljice na Slovenskem* (Ljubljana : Znanstveno in publicistično središče, 1995); Mojca Peček, »Feminizacija učiteljevanja 1869-1941«, *Šolska kronika — Zbornik za zgodovino šolstva in vzgoje*, 26, 1993, pp. 61-73.

2 Vlado Schmidt, *Zgodovina šolstva in pedagogike na Slovenskem 1 - 3* (Ljubljana: Delavska enotnost, 1988); Jože Ciperle - Andrej Vovko, *Šolstvo na Slovenskem skozi stoletja* (Ljubljana: Slovenski šolski muzej, 1987).

3 Quoted by: Hojan, »Žensko šolstvo in učiteljstvo na Slovenskem«, p. 53.

individual lands was also evident from the low number or special schools for girls. In the Gorizia and Trieste region, there were 50 such schools in 1851, but Styria only had 14. However, there were only 4 girls' schools in Carniola and 4 in Carinthia![4]

Until the middle of the 19th century, girls' schools – save for rare exceptions – were private. They were partly established by church orders, Ursulines and School Sisters, and partly by wealthier noblewomen and members of the bourgeoisie. Even the school reform after 1848 has not changed these characteristics quickly, and as late as at the end of the 19th century the percentage of public and private girls' schools in Slovenia was about equal. Public schools were also separated by gender, in order to avoid the morally »disputable« association of girls and boys.[5]

After the reforms following the Spring of the Nations, the attitude to the education of girls changed slightly. High schools (i.e. gymnasiums) and universities, which reformed after 1849, were still inaccessible to girls. However, the reform of elementary education according to the Act of 1869 brought some changes, since it provided for the establishment of women's teachers' colleges – the continuation of the education of girls after the conclusion of the people's schools.

Thus teachers' colleges were the first sort of schools where girls could continue their education as men's equals after completing their elementary education; of course, not in the same classrooms or schools, since schools were divided by gender into men's and women's teachers' colleges. This »concession« of the legislators did not take place due to the aspirations for equal participation of both genders in education, but mostly because of practical reasons. After the 1869 school reform, the teaching profession became even less interesting for men, since they had to give up certain sources of secondary income they had had before. Therefore, there was a lack of candidates for teachers' colleges and teachers at the time when all the youth had to be put into the classrooms. The relaxed conditions for the enrolment in the teachers' colleges failed to remedy the problem. However, the solution was to allow girls to enrol into teachers' colleges. This presents yet another proof that throughout history the receding respectability of a certain profession in the society has usually been related to the feminisation of that profession.

It was very interesting that by entering teachers' colleges, girls improved the average education level of the students at this kind of schools. They came from higher social strata than their colleagues, and »it generally held true that girls were better educated than their male peers«.[6] The state took the responsibility for the education of teachers, but due to the lack of staff the establishment of private teachers' colleges was allowed. However, the candidates had to pass final exams

4 Ibid., p. 55.
5 Ibid., pp. 51-58.
6 Schmidt, *Zgodovina šolstva in pedagogike na Slovenskem 3*, p. 243.

at the state schools. Private teachers' colleges for women enabled the Roman Catholic Church to preserve at least some of the influence on the education of the youth that had been taken away from it. Thus, apart from state teachers' colleges in Ljubljana and Maribor, there were also a few private teachers' colleges on Slovene territory, which in a few years acquired public concession.

The establishment of women's teachers' colleges, girls' high schools and secondary schools (in 1896 the municipal council of Ljubljana founded the first public high school for girls on Slovene territory) can be assessed from several perspectives, but the struggle of women for the introduction of gender equality in the school system is definitely among the most important of them. At that time special associations of women teachers, who came to realise that the demands for equality cannot even be implemented within their own profession, were also established.

The possibility of girls from people's schools attending the further education process did not imply that the attitude of the legislators to the issue of equality of genders with regard to the accessibility of education changed significantly. The law may not have demanded that the schooling of girls should necessarily end after the people's school. However, we should not overlook an important fact – until as late as the World War I, teachers' colleges were subject to special legislation and were not included in the legislation on secondary schools! Therefore, officially, secondary education was still the privilege of the male gender. We cannot deem the establishment of women's teachers' colleges, girl's higher primary schools and secondary schools as the efforts for gender equality in the secondary education, since girls were not able to conclude the secondary school with the »matura« exam (the final exam that was the condition for going to the university). Furthermore, the establishment of gender-specific schools did not exactly encourage the equal attitude to the genders.

Only as late as in 1872 were girls allowed to enrol in high schools, but not in order to attend classes but just to pass the exams. According to the instructions of the Ministry of 1877, the school had to evaluate every application of these girls and assess whether »any serious concerns of moral or disciplinary nature existed«. At the end of the schooling they could take the »matura« final exams; but, according to the guidelines of 1878 the documents thus acquired could not be marked as the »matura« exam certificates. According to the regulation of 1896, the certificates stated that these girls had passed the »matura« exam, but left out the statement that they had acquired the maturity necessary for the entry to the university. Only at the turn of the 19th century, in 1897, were the first individual women able to enrol in the Austrian universities.[7] However, even after they had been allowed to peek into

7 Tatjana Hojan, »Naše prve maturantke«, in Mateja Ribarič (ed.), *Od mature do mature : zgodovinski razvoj mature na Slovenskem* (Ljubljana: Slovenski šolski muzej, 1998), pp. 68-70; Alojz Cindrič, *Študenti s Kranjske na dunajski univerzi 1848-1918* (Ljubljana: Univerza v Ljubljani, 2009), pp. 250-257.

the high school classrooms, a different regime was in use for girls than for boys. A pupil of the high school in Ptuj remembered that girls (occasional students) had to gather in a special room. A teacher came looking for them before the class and took them into the classroom, where they had to sit separated from the boys. After the class was over, the teacher took them back to »their« room, where they were again »picked up« by the teacher of the following class.[8]

Due to numerous restrictions, girls barely managed to struggle through the system in which everything was decided by men, who deemed the schooling of women to be a danger to moral life, an abandonment of the traditional values according to which the women's place was within the inner family circle, and later also an increasingly dangerous competition for workplaces. Girls at high school were few and far between, and, of course, not all of them managed to cope with the final exams. Even less of them continued their education at the university level. According to the information available, the first Slovene woman to receive a university degree graduated as late as in 1906 from the Faculty of Arts in Graz. Her name was Marija Wrigler, born in 1879 in Novo Mesto.[9] Since before the World War I female secondary school graduates were extremely rare, it is obvious that finding any university graduates was even harder.

Even after they had graduated from certain schools, women were not equal to their male peers – we have already mentioned the restrictions with regard to the »matura« final exams. The differences were most evident to those educated women whose numbers were the greatest, who thus »caught« the eye of men as they became the competition in the struggle for income. These were, of course, female teachers. In accordance with the legislation, their wages were lower than those of their male colleagues, since as single women they supposedly did not have the same material needs as their male colleagues who had to take care of their families. Namely, female teachers had to remain celibate, and their marriage without the consent of the competent school authorities was considered a voluntary resignation from their post. At the end of the 19th century, the formal approximation of the wages of male and female teachers began, but in reality the situation of women was still worse. Namely, their male colleagues took better and higher positions as well as advanced faster through the wage grades.[10]

The attitude of men towards the schooling of women in Slovenia generally remained negative, even after more liberal school legislation had been adopted. According to the articles of the teachers in the Slovene pedagogical publications, women should take care especially of morality and religion, and if they had to be educated at all, they should have primarily been schooled in practical things that

8 Tjaša Mrgole Jukič, »V šolo grem, pa pika!«, in Tjaša Mrgole Jukič (ed.), *Izobraževanje in zaposlovanje žensk nekoč in danes* (Ptuj : Zgodovinski arhiv, 1998), p. 113.

9 Aleksandra Serše, »Profesorice«, in Nataša Budna Kodrič and Aleksandra Serše (eds.), *Splošno žensko društvo: 1901 – 1945* (Ljubljana: Arhiv Republike Slovenije, 2003), p. 232.

10 Peček, »Feminizacija učiteljevanja 1869-1941«, pp. 62-68.

mothers and housewives had to know. Even the opposing Slovene political blocs – the clericals and liberals – did not argue for significantly different principles in this context. To put it differently: while the clericals saw this issue through a prism of their narrow ideological viewpoints, according to which women did not have the same rights as men, liberals also failed to step up, since they did not argue for any concrete and clear standpoints with regard to the question of women's education.

Despite the changes in the attitude towards the schooling of women in the last twenty-five years of the Austro-Hungarian Empire, it has to be emphasised that a vast gap still persisted between the possibilities of boys and girls in terms of education. Any kind of education was available to boys, while few girls managed to overcome the obstacles and attain the education they were capable of attaining. Schooling was, with the exception of the people's schools, mostly separated by gender. Boys were taught by male teachers and professors, while girls learned from female teachers; for them it was rare to be instructed by males. Until 1918, two segregated worlds existed in the field of education (with the exception of the lowest level): male and female. Little of it involved mixed genders.

After the overthrow of 1918, the most important changes of the school system involved the introduction of the Slovene language and the perfection of the school system, while the third novelty – the opening of the whole school system for women – has not been discussed extensively in the overviews of the history of Slovene education. After the change of the state framework, the administrations of the State of Slovenes, Croats and Serbs and then the Kingdom of Serbs, Croats and Slovenes abolished the obstacles restricting the entry of girls into schools without any special statements. Women finally had access to all levels of education. As if they tried to emphasise this symbolically – as a sweet revenge for all the centuries of being pushed away from schools – at the promotion protocol (with registered promotions of new doctors) of the University in Ljubljana established in 1919, a woman was registered under No. 001 as the first doctor promoted in Slovenia; it was Ana Mayer, who received her doctorate at the Faculty of Arts. Of course, there were no women among the first eighteen appointed professors.[11]

Thus women were finally able to attain the highest education possible, which still did not mean that the gender segregation in the school facilities was over. Certain secondary schools and teachers' colleges remained male or female exclusively, which especially holds true of Catholic schools with public concessions and teachers' colleges. However, unlike the situation before the World War I, the »mixed« gender education at all levels of schooling became increasingly prevalent, while gender segregation remained as a heritage of past days and as the consequence of ideological outlook on different requirements in the education of boys and girls.

11 First page of promotion protocol published in Mojca Repež (ed.) *75 let Univerze v Ljubljani: 75 let neprekinjenega delovanja Univerze v Ljubljani: 1919 – 1994* (Ljubljana: Univerza), p. 16.

Initially in secondary schools, i.e. high schools, a percentage of girls allowed in the class was specified, but this was soon abolished. The number of girls at what had once been exclusively male schools increased constantly. Before the World War I, only a handful of female occasional students and those who only took exams were present in the high school classrooms. In the first year thereafter, the number of girls to boys was one to nine. However, before the World War II, already two out of five high school pupils were female.

Number of male and female pupils in the Slovene high schools between the two World Wars[12]

	Total	Girls	Percentage of girls
School year 1918/19	4914	578	11.8
School year 1928/29	6960	1972	28.3
School year 1937/38	12.135	4282	35.3

The percentage of female students at the University in Ljubljana also increased, but more slowly, with more than a ten-year delay in comparison to high schools. This is completely understandable, since the generations of girls allowed to take part in education had to complete their secondary schools first. Despite the apparent equality, women probably still felt certain reservations about studying certain subjects due to discouraging employment opportunities. Thus contradictory peculiarities took place. For example, women could study and graduate in law, equally as men; but they could not become judges, since only men could be judges. Therefore, for women, the possibilities in terms of education still failed to bring all the practical results that graduating in certain studies should entail. At the university level, girls remained restricted from studying at one of the five Faculties of the University in Ljubljana: the Faculty of Theology.

Number of students enrolled in the University in Ljubljana between the two World Wars[13]

	Total	Girls	Percentage of girls
School year 1919/20	695	25	3.6
School year 1928/29	1353	154	11.4
School year 1937/38	1873	346	18.5

After the establishment of the Kingdom of SHS in 1918, the changes in the school politics on gender (in)equality also involved the situation of female teachers.

12 Jože Lavrič et al. (eds.), *Spominski zbornik Slovenije : ob dvajsetletnici Kraljevine Jugoslavije* (Ljubljana: Jubilej, 1939), p. 184.

13 Ibid., p. 306.

They were now equal to their male colleagues, which meant that the regulations on unequal wages and celibacy of female teachers were abolished. However, the 1930s showed that the issue had not been completely forgotten. Namely, during the economic crisis the government wanted to reduce education expenditure. Female teachers were the first that the government thought of: they lost certain cost-of-living bonuses, and in 1937 a partial celibate was even introduced. However, the Ministry soon repealed these thoughtless measures.[14] The Slovene part of the state had a »surplus« of teachers, which caused controversies at the level of teachers vs. unmarried female teachers vs. married female teachers. If some funds had to be saved or some staff laid off, the authorities always turned to the married female teachers.

However, the values still fostered today became increasingly prominent: that just like everyone else, female teachers had the right to choose their profession freely, and that the teachers' profession called for an appropriate wage according to the »equal pay for equal job« principle. The argument inherited since the Austro-Hungarian times that female teachers were first-class pedagogues due to their inherent maternal instinct (which they were supposed to transfer to their pupils and should not get married in order not to waste these instincts on their own children) was gradually forgotten.

The final abolishment of gender separation in the classrooms took place in the communist Yugoslavia a couple of years after the World War II. Already with the nationalisation of all school facilities and the abolishment of private education, which especially involved Catholic schools that kept separating boys from girls, the percentage of gender-specific school departments decreased significantly in the first post-war school year (1945/46). The majority of single-gender school departments were abolished in passing – in the time when the new role of women in the society was emphasised, when women got their voting rights and were also allowed to peek into the world of politics. There were no more obstacles for the education of women in the Slovene school system. The differences in the percentages of boys and girls in individual types of schools were thus a consequence of the traditional division into female and male jobs. Both genders were also more and more equally represented in the teachers' staff rooms, and unlike in the preceding years an increasing number of principals were women.

The authorities also tried to affirm gender equality by appointing women to leading posts. In 1946 the management of education at the state level was taken over by a woman for the first time. Lidija Šentjurc was appointed the Minister of Education of the People's Republic of Slovenia. Before the following school year of 1947/48 began, on 7 August 1947 minister Šentjurc signed the following Decree:[15]

14 Peček, »Feminizacija učiteljevanja 1869-1941«, pp. 71-72.

15 *Vestnik ministrstva za prosveto Ljudske republike Slovenije*, II, No. 11, 28.8.1947, p. 116.

According to the proposal of the Department of Education

I decree

that on all primary schools and high schools where until now gender-separated classes had taken place, joint classes for boys and girls shall be introduced as of the school year of 1947/48.

In accordance with the proposals of the education sections of Municipal People's Departments, the Ministry of Education shall establish school districts and rename the schools.

Thus, gender segregation in schools lasting for centuries was formally abolished. Due to this abolishment the schools also had to be renamed accordingly. However, since exceptions prove the rule, we also have to look at the exceptions which this Decree had not yet dealt with. The Decree was limited to elementary and secondary schools, but it did not refer to the university studies. Therefore the exclusion of girls from the study process continued at one of the faculties – the Faculty of Theology. For the following four decades and a half, when this faculty operated as a private Church institution, this together with two new private Church's high schools that were established later, remained the only educational institution intended for men exclusively.

If we take a look at the proportion of girls and boys at secondary and higher education institutions, we can establish that it corresponded to the traditional outlook on the division into male and female jobs. Apart from students at schools, an increasing number of women also appeared in the teachers' staff rooms and offices, as the percentage of women among secondary school and university professors, where men still dominated, was also on the increase.

Number of pupils enrolled in Slovene high scools in the second half of the 20th century[16]

	Total	Girls	Percentage of girls
School year 1959/60	7,484	4,030	53.8
School year 1969/70	13,416	8,743	65.2
School year 1999/2000	31,426	18,661	59.4

Thus, in the last fifty years women also became dominant in what had once been traditional male fortresses: the high schools ("gymnasiums"). The female majority was stronger in the times when high schools were neglected under the communist rule. However, after high schools had been re-enacted in the 1990s and when professional and technical high school programmes were introduced, the proportion of boys even increased. The female majority became significant

16 Data for this and next table are taken from *Statistični letopis Slovenije* (Ljubljana: Zavod za Statistiko, relevant years).

at secondary schools of certain humanist and social studies orientations, for example at schools for teachers as well as at the administrative, hospitality and tourism, health, textiles schools, etc.

Number of students enrolled in higher education institutions in Slovenia in the second half of the 20th century

	Total	Girls	Percentage of girls
School year 1953/54	5,992	1,763	29.4
School year 1969/70	21,632	9,163	42.4
School year 2000/01	82,812	47,460	57.3

The trends from the former example were also present in higher education. The percentage of female students first became equal to that of boys in the 1950s and 1960s, after which women took over the majority at the humanist-social sciences faculties and high schools, for example Faculty of Arts, Economics, Law, Administration, Social Sciences, etc. At the turn of the 20th century, more than two thirds of all students enrolled in some of these schools were women. At some technical and natural science studies, the percentage of female students was extremely low (mechanical engineering, electro-technology, mining engineering); at others the share became quite significant (architecture, civil engineering, geodesy, mathematics – physics, etc.); while elsewhere the percentage of female students has already exceeded that of male students (chemistry – pharmacy, food technology, biology). At the studies of medicine women have also become more numerous than men, and at the studies of dentistry the percentage difference to the advantage of women has been on the increase.

The last fortress of the exclusively male studies fell after the next political overturn – the democratisation of Slovenia and its attainment of independence. After the reintegration of the Faculty of Theology into the University in Ljubljana at the end of 1992, the administration of this faculty started bringing their regulations in line with the University regulations. One of the more significant changes that took place in the following years was the possibility of women to attend theological studies. The enrolment in the Faculty of Theology soon started following the trends of the other humanist studies; already in a few years time the number of women students there exceeded the number of male students.

Mitja Sunčič

Towards Educational Typology of Slovene Industrial Entrepreneurs

Some methodological notes

The central idea behind my paper is to present the educational typology of Slovene industrial entrepreneurs active in the 19th and the first half of the 20th century. As the goal was to create a typology based on the entrepreneurs' level of education, some methodical shortcomings could not be avoided, such as oversimplification, which occurs when one tries to rank individuals into certain cohesive and representational types, and thus neglects the complexities and manifoldness present in the individual fates of industrial entrepreneurs. But considering that the school system, albeit being very intricate and prone to change, was still a coherent system, its roughest outlines could be schematized. The main goal was to study the biographies of Slovene industrialists and try to arrive at general conclusions by following the path of inductive reasoning. This brings me to the second methodological problem with which I was confronted, and that is the scarcity of information about the level of education achieved by industrialists, which can be found in various biographical sources. But all this considered, it is still possible to make some generalizations.

When speaking of education and entrepreneurship, there is one question that poses itself with regard to the interconnection between the level of education and an individual's disposition towards industrial activity. The burning question I was confronted with is the following: what role was played by education in the turn of events that led an individual to become an industrialist? To put it otherwise: was the level of education linked to someone becoming an entrepreneur? My thesis would be: the level of education played a minor role in shaping of entrepreneurs. The changing tendency of the level of education over the course of time suggests that it was a part of the changing social structures which shaped entrepreneurs' lives as an outward force. The change in the level of entrepreneurial education mirrors the tendency of a rising level of education of the capitalist society as a whole and thus does not have much to do with the inward, i. e. subjective, forces that made someone become an industrial entrepreneur. The merely objective conditions

can thus not be fully responsible for shaping an industrial entrepreneur, there was always a subjective element at work, that is a certain "something" contained in an individual's dispositions. There were different objective outside factors besides education that shaped an industrialists life: his social origin and his profession. It is likely that the noticeable rise in the educational level of Slovene industrials over time was the consequence of society's structural changes in the modern era marked by increasing institutionalization of all areas of life. This process of institutionalization made itself evident in the area of education, resulting in an increased societal demand for formal knowledge.

Parallel to the increase in the number of various institutions controlling the lives of the individuals, we need to mention the magnified complexity of the production process and the machines used therein, which demanded an increasingly scientific approach and the application of a more abstract knowledge. To put it in Marxist terms, the changing processes and means of production caused the changes in the society's superstructure, including education. If the early industrialists still gathered their knowledge of how factories are run and how machines work on an empirical basis and by following the relevant literature, their sons already received a degree of formal education higher than that of their fathers. The world became increasingly complex and those who wanted to be successful businessmen had to be flexible and follow those changes. But it was not just technology that had changed, also the society and the network of its relations became more and more diverse. A number of laws regarding all manners of business conducts and the employer-employee relations increased to the levels of unprecedented complexity. In this respect, it is possible to understand the increasing amount of lawyers involved in running of the companies. Their job was to navigate the often turbulent waters of relations between the workers and the company, company and the state and company and its various business partners. There was always a threat of something going wrong and the nature of lawyers' education vested them with an ability to take care of troubles in a way that was in accordance to the law.

As it will be seen from the next chapter, the contemporaries living in the period under discussion cited the lack of quality (vocational) education in Slovenia as one of the greatest hindrances to increased industrialization. In this case, the same question can be posed again about the role of education in an individual becoming an industrial entrepreneur. My answer would once again be "no". The examples of early industrialists show that they mostly possessed quite a low level of education, or that their education was of a decidedly humanistic profile. So what are the factors that made someone an entrepreneur? I think they are twofold: on the one hand there are the objective factors: social origin, profession and education; and on the other hand there are the subjective factors that instigated that final "push" between objective predispositions and the actuality of becoming an entrepreneur. The subjective factors can be subsumed

into something called "an entrepreneurial spirit", that is into something purely subjective, independent of objective circumstances, meaning that there is certain "something" in an entrepreneur that eludes being classified and explained in an objective manner. The argument that lower education caused the lack of industrialization was accurate in the sense of the Slovene people as a whole. It was correct in its assumption that the lack of technically educated cadre not only hindered managing of the factories, but also in the sense that the pool from which entrepreneurs would emerge was definitely more limited. But the component of "entrepreneurial spirit" still came into consideration on an individual subjective level.

As the Slovene society was progressing on its way to modernity, one of the key structural changes was the rising level of formal education. So it comes as no surprise that the overall educational level of industrialists rose accordingly. Here is how Narte Velikonja, a writer and a lawyer, summed up the evolution of Slovene educational system in the ten years after the end of the First World War: "If we look at the development of the school system in the past decade, we can mark the establishment of the Ljubljana University, a vast expansion of elementary, secondary and vocational schooling and a tendency of founding new "realka" schools."[1] Taking into account the efforts to modernize education, which the Habsburg government undertook prior to 1918, it comes as no surprise that the general level of education in the society as a whole increased considerably. All the structural changes undertaken in the previous 100 years made a merchants' magazine called Trgovski tovariš (Commercial Companion) to publish this ironical statement in the late twenties: "Why today we demand from every barber to have a degree."[2] This assertion, by pointing to a contradiction, perfectly illustrates society's growing demand for formal education and the decrease of importance of apprenticeship. The dilemma implied in the joke is this: why would a barber need a formal education, if he can be schooled by his artisan master? The answer lies in the increased institutionalization of every aspect of society in the modern world. The main point of vocational schooling was not to transfer the core of artisan training from practical to abstract knowledge (which it did in a synthetic fashion by blending together abstract and practical knowledge into a new and modern whole), but to rid the master of the control he once had over the apprentice, and to transfer this power to the state and specifically to the educational institutions.

The first prerequisite in creating an entrepreneurial typology based on the level of an entrepreneur's education is to define these levels. In the period discussed here, the nineteenth and the first half of the twentieth century, when Slovene industrial entrepreneurship was starting to develop, there was already

1 Narte Velikonja, "Razvoj šolske uprave", in Josip Mal, *Slovenci v desetletju 1918–1928* (Ljubljana, 1928), p. 694.

2 "Trgovec in njegov sin kot naslednik", *Trgovski tovariš*, Vol. 26, No. 8–9, 1929, p. 199.

an established educational system which bore the basic traits of a modern school system and can thus roughly be divided into three levels: primary, secondary and tertiary level. Each level's peculiarity and history will be the subject of the following short and cursory overview which is meant to give the reader a basic understanding of the educational system and its complexity.

The primary level was, at least after its 1869 reform quite a simple field. The compulsory schooling on the elementary level was instituted at the time of the enlightened empress Maria Theresa (1717-1780). The important part of the process of modernization she initiated was the establishment of the state school system. 1774 brought the legal establishment of compulsory education on the primary level. The rulers realized that the modern economic development was impossible without their subjects possessing at least basic formal knowledge. The organization of elementary schooling was fairly complex: it incorporated three types of schools: "normalke" (normal) schools were the rarest as there was only one per historical land and they had a very wide school program. The second type was the main schools organized in bigger cities, at least one per county. The last type of schools was the most wide-spread as it was organized in small towns and the countryside: the "trivial" schools, lasting only one year and providing its students with basic knowledge of how to read, write and calculate. The compulsory schooling encompassed all children between the ages of 6 and 12. Yet, the schooling was not free of charge. Although the elementary schooling was slow to take off, it nonetheless reached more and more children in the course of time.[3]

It was not until 1869 that a new law about elementary schools was enacted. It brought about deep changes; previously dispersed into three different types of schools, the new law brought about the unified, so called "people's" (ljudska) elementary school encompassing eight grades. The compulsory elementary education now lasted eight years, instead of the former six. This meant that all kids from the ages of 6 to 12, or sometimes even 14, were integrated into the system of compulsory elementary schooling. The new law also instigated the multiplication of the number of elementary schools, which were meant to reach as many children as possible. The curriculum was expanded from four subjects (writing, reading, arithmetic and religion) to teaching of the basic elements of the natural sciences, history, geography, geometry, singing and physical education.[4] This law was in effect until 1929, when a new law divided elementary schools into two levels: lower and higher. The lower consisted of four grades (first to fourth), the second from fifth to eighth grade.[5]

3 Bogo Grafenauer, "Podržavljenje šolstva in splošna šolska obveznost", *Zgodovina Slovencev* (Ljubljana, 1979), pp. 379–381.

4 Peter Vodopivec, "Razvoj šolstva na Slovenskem", in Jasna Fischer et al.(eds.), *Slovenska novejša zgodovina 1*, (Ljubljana 2005), p. 61. Hereafter Vodopivec, »Razvoj šolstva«.

5 Ervin Dolenc, "Izobraževanje", in Jasna Fischer et al. (eds.), *Slovenska novejša zgodovina 1*, (Ljubljana 2005), p. 424. Hereafter Dolenc, »Izobraževanje«.

The secondary level of education was far more complex consisting of different types of schools. There were secondary schools which enabled their graduates to further study at the universities, technical or merchant higher schools. The two basic kinds of these schools were the classically oriented "gymnasiums" and "realke" (real) schools which were more concerned with teaching natural sciences and mediating knowledge which could be used in industry, artisanship and trade. 1849 brought about the reform of "gymnasiums", which became institutions disseminating general humanistic knowledge. The learning period lasted eight years, but they were split into lower and higher "gymnasiums" and only by finishing eight grades students were allowed to receive a "matura" (graduation exam) degree which enabled them to go to a university. The classical "gymnasiums" were mostly transformed into real "gymnasiums" after the end of the First World War. The "realke" schools were meant as general middle vocational schools. The schooling period lasted three, six or eight years. Thus they were divided into higher and lower schools. After 1870 the eight-year "realka" school gained equality with a "gymnasium" and made it possible for its graduates to continue studying at the university. The graduates of the six-year program were able to study on technical or merchant higher schools. The lower "realka" school enabled its students to enrol in various vocational schools. In Ljubljana there was a "realka" school established in 1852. At first it only lasted three years, but in 1865 it became a six-year school.[6]

The other types of secondary schools were various artisan and merchant vocational schools. Since the 1880s, the government started to care more about artisan and merchant education on the secondary level. On the Slovene territory there was a state artisan school in Ljubljana (Državna obrtna šola) established in 1888 as a vocational school for lumber industry and artisanship. Since 1910, there was also a merchant school in Ljubljana, which accompanied the oldest merchant learning institution on the secondary level in Ljubljana, the Mahr's Merchant School established in 1834.[7] In the interwar period, the type of "meščanska" (civic) school already present in the pre-war times became very popular and its spread was sponsored by the government. The enrolment was possible for those who had finished five grades of elementary school. The schooling on a "meščanska" school lasted three years and was focused primarily on practical knowledge. After finishing "meščanska" school, pupils were able to continue schooling on various vocational schools or a teachers' school. The network of various vocational schools also grew in the interwar period. The artisan vocational

6 Vodopivec, "Razvoj šolstva", p. 61; *Enciklopedija Slovenije (hereafter ES)*, book 10, (Ljubljana, 1996), pp. 126–127 , Vladimir Schmidt, *Zgodovina šolstva in pedagogike na Slovenskem, book 3* (Ljubljana, 1966), pp. 135–136, Magda Prevc, *Ljubljanska realka skozi čas* (Ljubljana, 2009), pp. 21–58, *Festschrift zur Feier des fünfzigjährigen Bestandes 1852–1902* (Ljubljana, 1902), pp. 7–30.

7 Aleksandra Serše, *Strokovno šolstvo v osrednji Sloveniji do leta 1941* (Ljubljana, 1995), pp. 30–65.

schooling was concentrated in Ljubljana's Technical High School (Tehnična srednja šola). Two merchant academies were also founded on the Slovene soil: one in Ljubljana and one in Maribor. The highly developed system of vocational schooling was the pride of Slovene school system, as opposed to the other parts of Yugoslavia. By providing properly educated cadres, it played an important role in the Slovenization of the industry.[8]

The tertiary or the higher education consisted of universities and higher technical and merchant schools. The primary factor that separated them from schools on the secondary level was the demand that those who wanted to enrol had to have degrees from the two main types of secondary schools: "gymnasiums" or "realka" schools. As mentioned above, the degree from a six-year "realka" school allowed pursuing the study at higher technical or merchant schools, while a degree from the eight-year "gymnasium" enabled one to study at the university. Since the mid-nineteenth century, "realka" schools split into six or eight year schools, the latter of which also allowed the students to study at the university. Before 1919, there was no Slovene university in Ljubljana, despite multiple efforts to establish one. Considering this situation, Slovene students were forced to study at the universities in Graz, Vienna and Prague (established in the early 1880s). The Austrian universities were thoroughly reformed after 1848. The philosophical faculties, which included also the study of mathematics and various natural sciences, became the backbone of the whole university. The reorganized system of higher learning also included higher technical and merchant schools. Prior to the start of the 20th century, the Slovene students were mostly theology students. This changed at the beginning of the 20th century, when law students took the lead. The students of technical sciences were the least numerous.[9] This greatly contributed to the lack of proper technical cadres of Slovene origin in industrial enterprises and resulted in an "import" of technicians from abroad. This was a situation that many Slovene entrepreneurs and engineers tried to remedy with the promotion of technical studies among the Slovene youth. The downfall of the Habsburg Monarchy and the establishment of Yugoslavia brought about important changes in the field of tertiary education. The most important was the establishment of the Slovene university in Ljubljana in 1919, containing five faculties, among them a technical faculty which provided Slovene industry with engineers. The departments of technical faculty were: construction, architecture, electro-technical, mining, geodetics and chemistry.[10] The establishment of a technical faculty in Ljubljana greatly minimized the need for foreign technicians in Slovene industry.

8 *Spominska knjiga 1888–1938* (Ljubljana: Državna tehniška srednja šola v Ljubljani, 1938), pp. 7–62; Mihael Presl, *Namen, razvoj in organizacija obrtnega in strokovnega šolstva drugod in pri nas* (Ljubljana, 1920), pp. 26–36; Dolenc, »Izobraževanje«, pp. 426–428.

9 Vodopivec, "Razvoj šolstva", pp. 60–61.

10 Dolenc, "Izobraževanje", pp. 428–429.

Basic entrepreneurial types

The two basic types of individual industrial entrepreneurs according to the level of their education are: the traditional type and the modern type. The naming of the types is based on two key elements: firstly, on purely chronological order of things, as the modern type of entrepreneur first emerged in the period when the process of industrialization had already begun in Slovenia, which meant that the modern type was not involved in the early stages of industrialization; and secondly, on the qualitative aspect of an entrepreneur's educational level, which existed on two levels: the modern types all had tertiary education, while traditional types posed a more varied picture, as they possessed primary, secondary or tertiary educations. This brings me to the next qualitative difference between the modern and traditional type, and that is the difference within the tertiary education itself. What distinguished the modern types from the traditional types was their technical, natural-science, or merchant education on a tertiary level. To summarize, the modern types' educational specificity was twofold: they had an overall highest level of education, and at the same time their education itself was a novelty among Slovene industrial entrepreneurs. So, what defines the newness of the modern type of industrial entrepreneur is not his level of education, but the quality of the said education; and it is this quality that manifested itself as a consequence of the modernization of the school system and the capitalist production process.

Both basic types of entrepreneurs consisted of different subtypes. The traditional type is especially very diverse, as it contains entrepreneurs with three different levels of education. The first category included entrepreneurs without much formal education, usually consisting of only elementary schooling and an artisan or a merchant apprenticeship. This subtype of entrepreneur was present mostly in the early stages of the industrialization and faded from the ranks of entrepreneurs as time went on and vocational secondary schooling further developed. This brought about a change in the relationship between the artisan master and his apprentice, as the importance of the institution of apprenticeship began to lose its role of a vessel for the knowledge transfer. This task was now taken over by the formal state school system. The second traditional subtype was the industrial entrepreneur educated on a secondary level. As noted above, the secondary level was quite varied containing different kinds of schools. It is safe to say that industrialists-to-be preferred vocational schools of the artisan or merchant variety. The entrepreneurs with a merchant education on a secondary level were quite numerous, as well as those who got the knowledge of their industrial branch through vocational schooling. With regard to the two main types of secondary education, the "gymnasium" and "realka" school, the latter was much more popular with entrepreneurs. Some of the early industrial entrepreneurs were enrolled in a "gymnasium", but would soon drop out and

pursue business careers.[11] So, the "gymnasium" stayed reserved mostly for those who intended to go to the university, which brings me to the third traditional subtype: the jurist. More about this subtype is discussed below, in the case of the Kozler brothers.

It is easy to understand why "gymnasiums" presented an unattractive choice for the future entrepreneurs; their curriculum based on humanistic sciences had little to offer to the budding industrialists. There was a great divide between the reality of developing capitalist world and the world of the antiquity the "gymnasium" curricula were primarily concerned with. It comes then as no surprise that "realka" school, "gymnasium" greatest rival in the field of secondary schooling in the 19th century,[12] derives its name from reality itself: its main goal was namely to provide its students with knowledge based on the so called "real" sciences, and thus equip them to find their place in the "real world". As such, "realka" schools represented a strong opposition against the "unreality" of "gymnasium" school program, its supposed out-datedness, and its inability to keep in step with the changing times.

The available data suggests that there was an overall rise in the level of entrepreneurial education in the time-frame discussed here. This rise took place among the traditional types, and created the modern type, which would not have existed had it not been for the structural changes in the realm of education in the second part of the 19th century. The most notable change detected in the traditional type was the increase of entrepreneurs' education on a secondary level, as more and more industrialists gained their education from various secondary schools. Of great importance is also the development of vocational schooling. The two main reasons for this, as was already at some length stated above, were the rising complexity of the productive processes, tools of production and social networks, accompanied with the rising institutionalization of society. But even in times when a lot of modern types got involved in industry, especially in the interwar period, they never constituted a majority of industrial entrepreneurs; both the traditional and modern types of entrepreneurs coexisted and complemented their activities in the economic field. It would seem that the level of an individual entrepreneur's education played a part in the choice of the company-type which he was involved with. Judging from the available historical data, it can be deducted that the level of entrepreneurial education was mostly higher in joint-stock companies, as opposed to smaller companies or single-owned industrial enterprises, but further research would be needed to confirm or refute this claim.

11 Such was the case of Jožef Blaznik, bookbinder and cardboard producer. Rudolf Andrejka, *Znameniti slovenski obrtniki (1575–1940)* (Ljubljana, 1940), p. 14.

12 *ES, book 10*, Ljubljana 1996, p. 126.

The traditional type

The story of Fidelis Terpinc, the first and undoubtedly the greatest Slovene industrialist of the 19th century, shows an interesting discrepancy between the formal school system and an industrialist's needs in the early stages of industrialization. Although Fidelis Terpinc finished two grades of the lower "gymnasium" in Ljubljana – his father sent him there because he considered Fidelis to be a gifted child – he gained most of his knowledge of industry in an empirical manner, mostly by travelling abroad. It also has to be taken into consideration that he was born in 1799 and attended "gymnasium" in the school years 1813– 14, when Austrian curriculum was re-established after a transitional period of four years (1809–14), when part of the Slovene lands was occupied by France, which introduced its own school-system.[13] Fidelis' schooling at the "gymnasium" lasted for only two years. The curriculum of the two beginning grades was strictly focused on Latin: Fidelis had 18 hours of classes per week, of which half were devoted to elementary Latin. Three hours per week were reserved for history and geography; religion and morals were taught two hours per week. The natural sciences were not given much space: there was two hours of mathematics and two hours of various natural sciences (biology, physics, chemistry, etc.) combined per week.[14] Fidelis thus gained some basic knowledge that can probably be considered useful in the field of industry, but it still was not much use to a young man aspiring to become an entrepreneur. So, after finishing the two years of "gymnasium", Fidelis discontinued his schooling and at the age of 16 he started working in his father's shop. He became a merchant by profession, gaining all the necessary knowledge at his father's successful business. Later he started his own trade in Ljubljana, but Fidelis could not settle with being just a tradesman. He searched for other business opportunities and found them in industry. He bought a castle near Ljubljana and took advantage of the nearby river to create a modern and successful mill industry.

After marrying a woman from a respectable Ljubljana family, he spent a lot of years travelling abroad, attending world fairs and visiting various factories. All this supplied him with the knowledge of the latest technological advances in the fields of industry and agriculture, which enabled him to become a pioneer of paper-making, as well as chemical (on a smaller scale) branches of industry in Slovenia; he was also one of the biggest advocates of agricultural mechanization and overall modernization of farming.[15] The conclusion drawn from this account can only be that in the early days of industrial development in Slovenia there was no educational system appropriate for the people who were thinking of becoming active in this field. This lack of a possibility to gain formal knowledge caused

13 Vladimir Schmidt, *Zgodovina šolstva in pedagogike na Slovenskem, book 1* (Ljubljana, 1963), pp. 78–79, 252.

14 Ibid., p. 40.

15 Rudolf Andrejka, "Fidelis Terpinc", *Kronika slovenskih mest*, Vol. 1, No. 2, 1934, pp. 114–120.

these ambitious individuals to seek alternative ways of learning, and there was only one path to do it: through practical training and empirical knowledge. This is why travelling and the institution of world fairs played such an important role as a means of disseminating information in times when technical literature was still scarce.

The lack of formal vocational and technical schools was especially felt in the relatively backwards Slovene lands. In the 1852 report of the Ljubljana *Handels- und Gewrbekammer*[16] it is written that the two biggest obstacles standing in the way of the development of Slovene industry were the shortage of sufficient capital and low technical knowledge. In this respect, they called on the ministry of trade to work towards providing a better education for Slovene apprenticeship. The concrete solution they recommended was the establishment of a lower "realka" school in Ljubljana and the granting of scholarships for technical schools, which would provide those from poorer families with a chance of gaining an education bound to bring them success in the modern times. The Ljubljana merchants claimed that only reading and writing were not enough anymore, but that unfortunately, people still were not persuaded about the usefulness of the theoretical technical knowledge. The view of the businessman writing the report was that there would be no progress until people realized that the technical field provided humanity with endless possibilities for a better life.[17] It is interesting to note that 68 years later, when Slovenia was on the brink of a rapid industrialization, the same complaints about the connection between the lack of quality vocational schooling and industrialization can be found in a booklet written by Mihael Presl, a professor at a State Artisan School in Ljubljana (Državna obrtna šola v Ljubljani). His main claim was that the lack of vocational schooling meant the lack of industry and his goal was to show, through the description of vocational schooling in the West, the paths that Slovenia needed to take. He viewed the First World War as a fundamental break with the past. With its massive mechanization, it showed the tremendous importance of industry, and thus the striving for a qualified workforce was a matter of Yugoslavia's national security.[18]

If Fidelis Terpinc was not destined to receive a very helpful education on a secondary level, and had to realize his goals through gaining empirical knowledge, the case of Avgust Žabkar, one of the pioneers of Slovene iron industry, serves as an example of the importance that the secondary vocational schooling had

16 The "Gewerbs- and Handelskammer"-s were compulsory organizations comprised of the representatives of the Habsburg monarchy's historical lands' trade, industry and artisanship. The organizations were meant as intermediaries between business world and the state; their aim was to coordinate the interests of both parties with the goal of their mutual satisfaction. *Österreichisches Staatswörterbuch, book 2* (Vienna, 1906), pp. 687–690.

17 *Bericht der Handels- und Gewerbekammer für das Kronland Krain* (Ljubljana, 1852), pp. 16, 27-28.

18 Mihael Presl, *Namen, razvoj in organizacija obrtnega in strokovnega šolstva drugod in pri nas* (Ljubljana, 1920), p. 3.

gained in the course of the 19th century in helping to shape new entrepreneurs. Avgust Žabkar was born in 1854, 55 years after Fidelis Terpinc, near Mokronog in the region of Lower Carniola. His father was a forester. After he finished elementary school he started his apprenticeships with various locksmiths in Novo Mesto and Ljubljana. His ambition and a will to learn probably caused him to start attending the Sunday vocational school organized by Katoliško društvo rokodelskih pomočnikov (Catholic Society for Artisan Apprentices), meant to expand the education of artisan apprentices. There, Avgust was learning German, arithmetic and technical drawing among other subjects. But there was some force that pushed him on, and in 1873 he went to Vienna on foot to attend the world fair. He stayed there for a while, combining practice as an apprentice with gaining theoretical knowledge by studying relevant technical literature. And thus, having attained much knowledge in an informal way, he returned to Ljubljana in 1885, where, three years later, he established his own locksmith workshop, which he would transform into a factory for iron constructions in the early 20th century.[19] The case of Avgust Žabkar shows that the various endeavours for expanding vocational education on a secondary level proved to be successful in creating new entrepreneurial cadre, of course only in combination with the individual's striving to broaden his empirical and theoretical knowledge. The Sunday vocational schools provided Žabkar with some basic knowledge which enabled him to take further steps, but it was his entrepreneurial drive that made him an industrialist.

The third subtype of the traditional group is the jurist. A good case of early industrial involvement of this subtype is the Kozler family, one of the richest and most successful dynasties living on Slovene soil in the 19th and 20th centuries. The family's roots were in a remote and poor Kočevska region south of Ljubljana, whose peasant occupants had to restore to other types of activity besides agriculture, if they wanted to survive: their specialty became peddling. The dynasty's originator Janez Kozler I was born in a small village called Kočevska Reka in 1780. He spent his youth as a herdsman and started going to a local auxiliary elementary school only at the age of 13. But this did not last long, because soon the boy decided to become a peddler. He learned the trade on his travels throughout the monarchy, on which he escorted his relative who sold horses. As he grew up, he became independent and started peddling oranges and other tropical fruit. After moving to Vienna, he started a successful tropical fruit trade in 1812. He gained most of his fabulous wealth during the Vienna Peace Congress of 1814-1815. As his riches grew, he bought himself and his family a castle near his native region.[20]

19 *Slovenski biografski leksikon (hereafter SBL)*, book 15 (Ljubljana, 1991), pp. 915–916, Rudolf Andrejka, *Znameniti slovenski obrtniki (1575–1940)* (Ljubljana, 1940), p. 18.

20 Ivana Kordiš – Irena Škufca, "Po hribih, po dolih razširjen njih rod", in Ivan Kordiš – Irena Škufca, *Peter Kozler in prvi zemljevid slovenskega ozemlja* (Kočevje, 1996), pp. 13–62; Arhiv republike Slovenije (ARS, i. e. Archive of the Republic of Slovenia), AS 811.

This was the social environment appropriate for the emergence of entrepreneurs with a university-level education. Despite having almost no formal education and perhaps even because of that, Janez Kozler I made sure that his three sons got a better schooling than him. The firstborn Janez Kozler II, who was destined to inherit the castle and the surrounding estate, graduated from the Ljubljana "gymnasium". The second-born Josip and the third-born Peter both finished law and worked as lawyers. It seems that their father was determined to provide for them the best possible education. Perhaps them not being meant as heirs to the estate played a part in having a higher education than their older brother. But after their father had died, the two younger brothers gave up the law practice and started to run the business of the deceased. The speed with which the sons stopped their law practice leads one to speculate that their father was the one who wanted them to become jurists. Speculations aside, it is clear that all three sons were men of action, interested in industry, mechanics, machines and modernization of agriculture. They possessed a knack for all technical things and were eager innovators.[21] All this considered, it comes as no surprise that they established the first modern steam-driven beer brewery in Ljubljana, which developed into one of the biggest Slovene breweries, and still exists today. The explanation for this action found in literature is that the brothers wanted to protect the large amount of money left to them by their father from the threat of a future war.[22] Taking all this into consideration, there must have been another motif for their action; some amount of entrepreneurial spirit, drive and a preparedness to take risks had to play a part in deciding to invest into industry. Peter Kozler, the former lawyer, took over the management of the company. In 1867, when the three brothers registered their firm Gebrüder Kosler, Bier und Spirituserzeugung (Kozler Brothers, Beer and Spirit Production), the brothers got involved in industry. But the Kozler brothers' ties with Slovene industry did not stop there. In 1873, Janez and Peter played a part in the establishment of the first construction joint-stock company in Ljubljana and Slovenia.[23]

Aside from the Kozler brothers, there were other jurists involved in industrial joint-stock companies in the 1860s. The information about three early industrial joint-stock companies[24] established in Ljubljana shows that lawyers were participating in the leadership of industrial companies at the early stages

21 Ivan and Josip were involved in promoting agriculture in the marshy area around Ljubljana called Barje, Josip even did some experiments on his estate. Ivan was a big promoter of turf-usage as an alternative to coal. He was also a master of building watermills and water saw-mills. Peter was the creator of the first map of Slovene territories in the Habsburg Monarchy. *SBL, book 4* (Ljubljana, 1932), pp. 542–543.

22 Rudolf Andrejka, "Najstarejše ljubljanske industrije", *Kronika slovenskih mest*, Vol. 1, No. 4, p. 290.

23 Zgodovinski arhiv Ljubljana (ZAL, i. e. Historical Archive of the City of Ljubljana), LJU 88, register družbenih firm.

24 They were called: Krainische Baugesellschaft, Narodna tiskarna and Laibacher actiengesellschaft fur Gasbeleuchtung. All information op. cit.

of Slovene industrialization. This participation was twofold: monetary (capital) and entrepreneurial. Capital involvement meant they were shareholders and the entrepreneurial involvement meant they had a say in the running of the companies as members of the boards of directors. All three above-mentioned industrial companies were spawned in the decade from 1863 to 1873, i. e. in the years of a quick industrial development of the Habsburg Monarchy.[25] It is understandable that such distinguished and wealthy members of society such as lawyers would seek to increase their riches by investing into blooming industrial activity by becoming share-holders. What distinguished the subtype of lawyer-entrepreneur from other traditional entrepreneurs was not just his higher level of formal education, but also the types of companies they preferred to be involved in. The lawyers were namely present mostly in joint-stock companies, often as bank representatives. Contrary to this, a lot of early industrialists started out with single-owned firms or in companies with only a few partners. It was only later that they got involved in joint-stock companies. In time the lawyers' ties to banking institutions became more and more tight. At the early stages of industrialization, the lawyers often invested their own savings into joint-stock companies and thus, as members of boards of directors, represented their own individual interests. As time went on and the Slovene banking system evolved, the lawyers more and more often became involved primarily with banks, which was a career opportunity granted to them by their education, and so turned into the representatives of banks in the boards of directors of large industrial companies. Their immediate monetary participation in joint-stock companies began to lose its importance, with bank capital taking the forefront. The consequence of this was that the jurists progressively adopted a purely entrepreneurial function. This process came to its full fruition in the interwar period.

Rounding up the overview of traditional entrepreneurial subtypes, it is necessary to present an example of the first subtype. There are a lot of cases of industrialists who only finished elementary school and later became merchants or artisan apprentices. The story of Karel Pollak, one of the greatest Slovene leather industrialists, serves as a good example. Karel Pollak was born in Kranj in 1853 as an only son of a local tanner. After his father's early demise, he became an apprentice at his uncle's leather workshop in Tržič, a town in the Upper Carniola region, famous for its leather artisanship. In 1873, when he was just 22 years old, he started his own export leather trade in Ljubljana and used the capital he had saved to open leather factories first in Kranj and later in Ljubljana. His foray into leather industry happened in the late 19th/early 20th century and proved to be a success. During the First World War, when army's demand for leather products caused production to skyrocket, he opened another factory in Vrhnika

25 Roman Sandgruber, *Ökonomie und Politik. Österreichische Wirtschaftsgeschichte vom Mittelalter bis zur Gegenwart* (Vienna, 1995), pp. 245–251.

near Ljubljana.[26] He came out of the war as an owner of one of the biggest industrial empires in Slovene history and managed to achieve all that with just an elementary formal education.

The modern type

The first subtype of the modern industrial entrepreneur is the engineer-entrepreneur. Slovene engineers were schooled on technical faculties throughout the monarchy. The most popular were schools in Austria, especially in Graz and Vienna, but due to the cultural and political ties between Slovene and Czech lands, also in Brno and Prague. The founding of the technical faculty in 1919 as part of the Ljubljana University played an important role in shaping the upcoming entrepreneurial and professional cadres for the jobs in industry. This contributed to the process of Slovenization of the industry, a goal coveted for by the Slovene nationalists since the 19th century. The second subtype of modern industrial entrepreneur was distinguished by a degree from higher merchant schools. These merchant schools on the tertiary level, as for example the *Hochschule für Welthandel* (Higher School for International Trade) in Vienna, were those where the enrolment was only possible with a "matura" degree from the "realka" school. This distinguished them from merchant vocational schools on the secondary level, and placed such learning institutions firmly into the realm of tertiary education. The third subtype is the industrial entrepreneur who finished the study of natural sciences on the university level. They were only a few and it seems that individuals with this type of education were more interested in academia (research and teaching) than the entrepreneurial activity. Generally speaking, engineers numerically dominated the ranks of modern entrepreneurs. Their massive engagement in industry began in the interwar period.

There are many interesting examples of the modern type of industrial entrepreneurs. As my aim is not to bore the readers, I will limit myself to three cases. The first is Alojzij Kral from Moravia. Born in 1884, he was schooled in the Czech lands: after finishing secondary education (it is unclear whether he went to a "realka" school or a "gymnasium"), he graduated from the Brno Technical Faculty in 1910 as a building engineer and got his doctor's degree from the same school in 1916. Alojzij Kral is especially interesting as an example of a highly educated constructor involved in industry. He came to Ljubljana already in 1912. Here, he was employed with the state building administration until 1920, when he became a professor on Ljubljana's technical faculty.[27] Around this time he also got involved in the nascent Slovene building industry. As a member of the board of directors, he was active in two joint-stock companies in this field: Slograd, slovenska gradbena in industrijska d. d., Ljubljana (Slograd, Slovene Building

26 *SBL, book 7* (Ljubljana, 1949), p. 438.

27 *Spominski almanah slovenskih strokovnih pisateljev, publicistov in projektantov* (Ljubljana, 193?) [the exact date of publication is nowhere to be found], p. 297.

and Industrial Joint-Stock Company, Ljubljana) where he was active from 1922–1927 and Opekarna Emona d. d. v Ljubljani (Emona Brickworks, Joint-Stock Company in Ljubljana) from 1922–1926.[28] The first company started out in 1921 as a smaller firm involving mostly building engineers of Czech origin – the reason for its establishment was probably the liveliness of the post-war building activity – and was later turned into a joint-stock company when banks got involved. The second company was founded for the same reasons as the first: the entrepreneurs involved wrote that their goal was to provide the Yugoslav building industry with adequate building materials. Kral was involved in it as a representative of Slograd's interests; Slograd was namely a stock-holder in Emona.[29] In both companies, Alojzij Kral figured as a highly qualified expert involved in the bodies authorized to make chief entrepreneurial decisions. He was also one of the major stockholders in Slograd, showing that he was not just a scientist, but also an entrepreneur ready to take risks in the field of industry.

The next example of a natural-sciences-degree-holder-come-entrepreneur is even more interesting, because it involves not only one of the rare Slovene entrepreneurs with a degree in chemistry, but this individual also happened to be one of the rare women active in Slovene industry. Her name was Ana Kansky and she owned a company called Dr. A. Kansky, kemična tovarna, Podgrad pri Zalogu (Dr. A. Kansky, Chemical Factory, Podgrad near Zalog) and also a shop selling chemicals and laboratory equipment in her and her husband's house in Ljubljana. The extraordinary thing about Ana is not just her doctoral degree in chemistry, a title rare even among men at the time, but that her company was one of the most advanced factories in Yugoslavia. The factory was rather small,[30] but nonetheless the principles on which it was run were ahead of its time and it sticks out as one of the most ahead-of-its-time companies of the period. In the sense that the scientific and technical innovation was its main principle, it was a sign of the direction that the whole industry would take in the future. Such companies of course were not rare in the West at the time, but it definitely sticks out from the rest of the Yugoslav industry. It was run strictly scientifically and innovation was its main goal. Having a function of an industrial outlet for scientific research, it supposedly did not yield much profit, although its almost two decades long run bears witness to its relative success. It was founded by consorts Kansky in 1922 with the money left by Evgen Kansky's recently deceased mother.

The Kanskys were a very interesting couple: both were highly educated and competent scientists. Evgen Kansky was a Russian emigrant living in Ljubljana. He was a prominent researcher in the field of biochemistry and a professor on Ljubljana's medical school. Ana Kansky's maiden name was Mayer and she was born on 20 June 1895 in a small village Lože pri Vipavi as one of the five children.

28 ZAL, LJU 88, Trgovski register oddelek B, book 2, delniške družbe.
29 ARS, AS 76, konvoluta 118 and 125.
30 In 1937 there were 29 people employed. ARS, AS 448, fascikel 309/5.

She was from a quite well-to-do family. Her father was a land-owner. She spent her childhood in the family mansion and started elementary school in the nearby Vipava village in 1902. During weekdays she lived at her grandmother (on her father's side) who was a land-owner and a post-station leaseholder. In 1907, she departed to Ljubljana to get her secondary schooling in Ljubljana's city lyceum for girls. Because the lyceum could not provide her with a "matura" degree equal to that of a "gymnasium", as it only constituted of six grades, she had to take up private lessons, which enabled her to complete the seventh and eighth grade and gain the "matura" degree at Ljubljana's classical "gymnasium" in 1914. This made possible her enrolment on the philosophical faculty of the University of Vienna. During the First World War, from 1914 to 1918, she studied chemistry as her major, and physics as her second subject. The chaos of the ending war and the crumbling Habsburg Monarchy forced her to cut her classes short and on 1 November 1918, three days before Austria's capitulation, she left for home. The next year she continued her studies on the newly established University of Ljubljana. In quite a short time she prepared her doctoral dissertation on the effects of formalin on starch and in July 1920 she became the first woman with a doctor's degree in Slovenia, as well as the first doctor to be habilitated by the University of Ljubljana. For some time she continued with her research activities at the university. In 1921 she married Evgen Kansky and soon afterward they established their own company. It seems that Ana Kansky was not satisfied with just pure research, her entrepreneurial drive made her establish a company which, at the time, was a unique synthesis of scientific research and industrial production. The list of innovative products the company brought onto the Yugoslav market is a long one. Suffice to say that it provided the Yugoslav industry with many necessary chemical products. It was also pioneering in the production of many chemicals until then only available as imports. Factory's specialty was the production of technologically complex chemical products. Besides providing materials for chemical industry, Ana Kansky started company's own line of pharmaceutical products. In conclusion: Ana Kansky's company presented the apex of the combination of education and entrepreneurship in the pre-war period.

The third and last example pertains to the subtype of industrial entrepreneurs educated on the higher merchant schools. Such was the case of Branimir Tuma, the son of a distinguished Slovene politician, Henrik Tuma, born in Gorica in 1904. In 1922 he finished the "realka" school in his home town. Gaining the necessary "matura" degree meant that he could enrol in the Hochschule für Welthandel (Higher School for International Trade) in Vienna. He studied there from 1922 to 1925. After he had graduated he returned to Yugoslavia and after having worked as an employee in a pencil-producing plant, he started his own chemical factory in Ljubljana. His business associates were his three brothers, who all together had a winning educational combination for a successful running of a modern factory: Branimir had a merchant education, Boris was a jurist, Ostoj

an electro-technical engineer and Zoran a chemical engineer. The company was aptly named "Bratje Tuma" (The Tuma Brothers) and serves as a good example of the increase of the number of modern-type entrepreneurs in the interwar period, as well as an example of an overall increase in the level of education of those involved in the industry.

Željko Oset

Acceptance of Modern Scientific Achievements in Slovene Communication Network. Example of Evolution Theory and Formation Process of Slovene Technical Terminology

"Animals, whom we have made our slaves, we do not like to consider our equal."
Charles Darwin[1]

"I stand here before you with a basket full of German knowledge and only a handful of Slovene words."
Jožef (Joseph) Stefan[2]

"If we completely denounce German language, we will soon forfeit to insignificance and ultramontanism."
Dragutin Dežman[3]

Previously, the declaration that the world will stay the same was quite close to the truth. In the last 250 years, the applicable science brought unimaginable achievements by merging the knowledge of natural regularities with technics and turned the previously mentioned declaration and the world upside down. Epoch-making changes brought about excitement over technics (science) in the 18th, even more so in the 19th century, which subsided at the beginning of the First World War, which brought to the surface the negative side of technical acquisitions. In the technical inventions era, engineers non-critically acquired the status of modern Prometheuses. The world exhibition in Paris in 1900 exposed the expectation for technics to improve life. In the words of Karl Popper we can say that human

1 Quoted by: URL: http://www.brainyquote.com/quotes/authors/c/charles_darwin.html (25. 10. 2007).
2 Josip Stefan, "Naturoznanske poskušnje: II", *Slovenski glasnik*, No. 6, 1859, p. 96.
3 Vasilij Melik, *Slovenci 1848-1918* (Maribor, 2002), pp. 188-189.

spirit progressed as 2nd evolutionary stage in modernization era. The 2nd stage differs from the 1st stage of biological evolution by rapid changing, advancement, and includes a dynamic component (variability, causing uncertainty).[4] The key condition which enabled "intellectual evolution" is scientific and cultural progress. Max Weber thought of it as being a result of the victory of intellect over magic ("*Entzauberung der Welt*").[5] It has to be emphasized that the modern time researchers and scientists did not undertake their research work with a desire to change, but were motivated by searching for the truth.

Technicians as modern Prometheuses must also be seen with regard to their philosophical and national self-image. This is especially important regarding the competition between "greater" nations in the scientific field (so called *Kampf des Geistes*). Technics was an important part of national identity and self-image because of its sole meaning for everyday life and also its influence on political and military power of the state. Milan Vidmar called attention to the importance of technics for the nation by writing in his memoir that most of the technicians in Cisleithania were *"not only Germans, but also very devoted to all German ideology"*.[6]

Modernization essentially changed the external image of existential habitat as well as the life conditions and spurred dynamic processes noticeable on all levels of society. Modernization processes were concentrated in urban centres, which allowed strengthening the position of urban environments in society.[7] One of the decisive measures that accelerated modernization and thus social transformation was a far-reaching secondary and higher education schools reform.[8] In the 19th century, Slovenia was a development region without a higher education centre and a European cultural focus. For this reason, Slovenia was dependent on the cultural transfer or complex interchanges in cultural and language heterogeneous space. The cultural transfer was successfully maintained irrespective of the strained national question in the Habsburg Monarchy till the First World War. Those responsible for the transfer were intellectuals, entrepreneurs, and students at the Austrian, German, Italian and other European universities.[9]

4 Heinz Dudeck, "Die Zukunf beginnt in den Köpfen: Ingenieure und die Geisteswissenschaft", *Forschung und Lehre*, No. 1, 1997, pp. 3–6.

5 Gregor Schöllgen, "Ein wilder Hazard: Max Weber Rede "Wissenscahft als Beruf"", *Forschung und Lehre*, No. 5, 1999, pp. 246-248.

6 Milan Vidmar, *Spomini: I.*, (Maribor, 1964), p. 149.

7 Monika Stromberger, *Stadt, Kultur, Wissenschaft: Urbane Identität, Universität und (geschichts) wissenschaftliche Institutiònen in Graz und Ljubljana um 1900* (Köln, 2004), pp. 10–43; Monika Stromberger, "Znanost kot dejavnik kulturnega transferja: Ljubljana na začetku 20. stoletja", *Prispevki za novejšo zgodovino*, No. 2, 2007, pp. 7-11.

8 Robert A. Kann, *The multinational Empire nationalism and national reform in the Habsburg Monarchy 1848-1918*: I. (New York, 1964), pp. 4-5. Janez Bleiweis also wrote an article on the importance of reforming formal education with emphasis on national needs. In his article Bleiweis estimated the reform as the key change of era after March Revolution. J. B. (Janez Bleiweis), "Vedna Pravda", *Glasnik slovenski*, No. 5, 1864, pp. 152-154.

9 Peter Vodopivec, "Slovenski študentje in Dunaj pred prvo svetovno vojno", in Darja Mihelič

The secondary and higher education schools reform in 1848 could not be carried out undisturbed because of the Neo-Humanistic Prussian system on the one side and national demands, mostly of non-German inhabitants on the other side. Among the requirements in the field of education, the requirement for inclusion of Slovene language in secondary schools and requirement for establishment of University in Ljubljana should be mentioned. Establishment of University was proposed by the students of Lyceum in Ljubljana.[10] These requirements should be understood in the context of similar requirements and revolutionary enthusiasm formed by the liberalist belief in progress and legal equality. The function of these requirements was not so much changing the behavioural style (*Hochkultur*), but they represented the application of modern liberalist ideas in socially less developed environment (by proportion of townspeople, value added at economy, and number of students). The school reform in 1848 accelerated modernization processes and increased the importance of science and the importance of conducting research in schools. The important aspect of reform was enthroning universities as strongholds of civic liberalism.[11] This is especially noticeable in the desire to be intellectually independent from Church, which was reflected by the struggle against the Faculty of Theology.[12]

The main goal of Slovene cultural programs after the March Revolution was manifested in the adoption of neo-humanistic principle of universal education; Slovenes expressed the desire to be educated in their mother tongue. This desire was expressed upon the establishment of *Slovenska matica* society (1864) and also later in private letters and forewords to popular science books. This raised a question as to what kind of education Slovenes wanted. The answer to this question came from *Zgodnja Danica's* circle, which emphasized the need for education based on Christianity. An education inconsistent with tradition must be refused. Acceptable education should be permeated with traditional Christian values. This was also confirmed by the adoption of Pope's encyclical "Quanta cura" in *Slovenska matica* society. At its 1st general assembly in May 1865, a viewpoint was offered according to which it was not necessary to write an encyclical on society's regulations, since theses in the encyclical were a well-known fact.[13]

(ed.) *Dunaj in Slovenci* (Ljubljana, 1994), pp. 89-97; compare to Alojz Cindrič, *Študenti s Kranjskega na dunajski univerzi 1848-1918* (Ljubljana, 2009).

10 Janko Polec - Bogumil Senekovič, *Vseučiliški zbornik* (Ljubljana, 1902), pp. 21-35.

11 Hans Lentze, *Die Universitätsreform des Ministers Graf Leo Thun-Hohenstein* (Wien, 1962), pp. 276-277. The indicator of liberal citizenry power was visible at the establishment of Austrian Academy of Sciences and Arts (1847), and was understood as Metternich's concession.

12 This state was confirmed by record of scientific freedom and freedom of learning-teaching as essential liberal privilege written in December constitution. Susanne Preglau Hämmerle, *Die politische und soziale Funktion der österreichischen Universität: Von Anfängen bis zur Gegenwart* (Innsbruck, 1986), pp. 108-110.

13 Archives of the Republic Slovenia (ARS), AS 621 Slovenska matica, box 1. It should be noted that an that time, a half of founding members were priests, as well as one quarter of committee's

Forming of terminology of a language community is an indicator of its spiritual and cultural or scientific conquering of the world; moreover, following of common cultural-scientific currents demonstrates an inclusion into a wider European context in the field of researches, ideas, concepts, and methodologies of scientific research work and knowing of sources and literature. The fact that Slovenes used scientific terminology was a sign of deepened perception. One should show some restraint for the use of individual invention or the term can only indicate personal knowledge and not a common situation.[14] With the adoption of inventions, appropriate terminology is formed. Slovene terminology was formed simultaneously with acceptance.

The secondary schools reform represents an important incentive to the formation of Slovene terminology. Thus, Slovene language gained importance and became an obligatory subject for students whose mother tongue was Slovene. The curriculum included two to three hours of Slovene per week. The sole inclusion of Slovene as a subject of the secondary school curriculum did not start on the language hierarchy and behavioural style connected to it. Slovene as a school subject helped young intellectuals to better express themselves in Slovene than those intellectuals who attended secondary school before the March Revolution. The cultural societies in Slovenia still more often used German language.[15] Language hierarchy was natural. Therefore one should not be surprised by the

members. The society was organizing local networks with the help of church's network, especially in Carniola, which basicaly means that priests raised annual membership dues and distributed published books. The importance of priests is visible in the fact that 44 out of 62 literary writers had theological education in the period from 1825 to 1848. Melik Vasilij, "Problemi v razvoju slovenske narodne identitete (1941)", in Dušan Nećak (ed.), *Austria, Yugoslavia, Slovenia: Slovenska narodna identiteta skozi čas* (Ljubljana, 1997), p. 44; Olga A. Valkova, "Konflikte unter russischen Naturwissenschaftler in der Mitte des 19. Jahrhunderts", in Ralph Jessen and Jakob Vogel (eds.) *Wissenschaft und Nation in der europäischen Geschichte* (Frankfurt an der Main - New York, 2002), pp. 59–79.

14 Erich Prunč, "Prispevek k poznavanju virov za Gutsmanov slovar", in Boris Paternu (ed.), *Obdobje razsvetljenstva v slovenskem jeziku, književnosti in kulturi* (Ljubljana, 1980), pp. 209–211.

15 Henrik Schreiner, physics professor in Bolzan, called attention to the communication problem among Slovene intellectuals in his letter to Slovenska matica committee on the 19th of June in 1890. For better understanding I quote a part of the letter: "*Slovene papers are not satisfying the scientific needs of Slovene intellectuals, the fact that cannot be held against them, for there is no Slovene paper with the main or the only goal to cultivate science /.../ and we complain that our intellectuals do not always interact in Slovene language. How could they, when we do not have sufficient scientific vocabulary? Do we not all take knowledge from foreign sources in foreign form? Give us Slovene spiritual food and Slovene word will flourish.*" ARS, AS 621 Slovenska matica, box 13. Very condensed description of inferiority and the feeling of incapability to live a quality and independent life was given in the survey of Veda paper in 1913 by Fran Milčinski: "*Our home is tight, tight as a family coffin! The most natural solution to depressing shackles is merging with Croatians. /.../ Popular and applicative science in schools is somewhat developed, but real science cannot thrive, /.../ for there are not enough people interested in special branches of science to fill the table.*" Miličinski Fran. In: *Veda*, 1913, p. 226.

harsh rejection of Toman's proposition in the Carniolan regional assembly in 1861 that Slovene should become a debate language.[16]

The establishment of *Slovenska matica* was a turning point for publishing of Slovene scientific and school books. The regulations of *Slovenska matica* society were confirmed on 4 February 1864. The purpose of the society was defined as publishing of "*scientific as well as generally beneficial books in Slovene language or support issuing of the latter*".[17] The society was active in addressing the pressing cultural problems (standardization of Slovene language, forming of Slovene scientific terminology, striving for Slovene secondary schools and establishment of a Slovene university, etc.).[18]

The first integrated natural scientific terminology execution plan by J. G. Verdelski was published in the paper *Glasnik slovenski*. In his article, Verdelski paid attention to the most pressing problems that oppressed the young Slovene culture in all fields of human society. Verdelski emphasized underdeveloped natural science (written in Slovene) as the most pressing problem. He ascertained analytically that this resulted from cultural underdevelopment and the lack of normative measures in technical terminology.[19] Verdelski also considered problematic any non-critical adoption of foreign expressions and every writer's ambition to form his own expressions. He suggested using Kopitar's approach when searching for new expressions, which means that appropriate expressions should be sought in a spoken language. Verdelski and Jožef Stefan were opposed to violent "Slovenisation" of the already established foreign expressions.[20] Verdelski suggested that "*every newly introduced word is to be defined and its meaning explained, and these steps should be taken with all technical terms.*"[21]

Verdelski and also other writers of natural scientific papers of Slovenski glasnik expressed Illyrian tendencies.[22] Verdelski's, Jožef Stefan's and Ferdo Kočevar's "natural scientific" contributions are interesting for the formation of terminology. They were publishing plans and suggestions for the formation of Slovene culture, which reflected their romantic belief in the newly commenced Slovene nation's project in the field of culture. They were striving for an increased activity in the field of natural science in Slovene language. Jožef Stefan's statement was of some significance: "*I stand here before you with a basket full of German*

16 Joka Žigon, *Veliko pismo slovenske duhovne združitve: Ustanovitev Slovenske matice* (Ljubljana, 1935), pp. 73–75.

17 ARS, AS 621 Slovenska matica, box 2.

18 ARS, AS 621 Slovenska matica, boxes 7-16.

19 J. G. Verdelski, "Potrebe Slovencov glede prirodnih ved", *Glasnik slovenski,* No. 2, 1858, pp. 52-56.

20 *"Terms of European science that can be told in Slovene language and are already acclimatized and used by Slovenes should be kept."* J. G. Verdelski, "Potrebe Slovencov glede prirodnih ved", *Glasnik slovenski,* 1858, No. 2, p. 52-56.

21 "Glasnik literarni: Odgovor sostavku "Potrebe Slovencev glede prirodnih ved"", *Glasnik slovenski,* 1858, No. 3, pp. 87-90.

22 J. G. Verdelski, "Potrebe Slovencov glede prirodnih ved", *Glasnik slovenski*, No. 2, 1858, pp. 52-56.

knowledge and only a handful of Slovene words. It would be easy to take from the basket, not so much to find in a curtailed fist. And they cannot be sent into the Slovene world naked. For Slovenes are modest, and language deficiencies are thorns in their sides. They are disgusted with all words that are not spoken by a Slovene farmer from morn till dawn."[23]

The natural science terminology obtained more defined and systematic contours with publishing of the first Slovene school books for secondary schools. At about the same time, there was an incentive for publishing Slovene scientific terminology in the publishing house *Slovenska matica* at the end of the 60s. Thus, scientific terminology became the primary item of German opposition to secondary schools utraquisation in Carniola, and to a lesser extent, in Styria and Carinthia.[24]

Formation of terminology triggered severe personal and ideal-conceptual conflicts. The first victim of those conflicts was Matej Cigale. In his letter to the committee in December 1869, he complained over a severe aggression of "*Narodovci*" (a circle around the newspaper *Slovenski narod*) making jokes at his expense.[25] Cigale understood criticism at his own expense as a personal attack and as being negative for Slovene language development. In his opinion, this kind of behaviour led to a ruin of Slovenehood. Fractions also started in *Slovenska matica* project of translating Schödler's *Buch der Natur* to Slovene. The key protagonists of language-terminology conflict were Ivan Tušek, Viljem Ogrinec, Janez Zajec, and Fran Erjavec. The first book that was published was Physics, translated by Tušek. Tušek demanded his work Physics to be a normative framework for Slovene natural scientific terminology. Tušek's demand and friendly correspondence assured committee's support. After evaluation of Astronomy, the committee requested Ogrinec to *"change terminology in accordance to Physics."* Ogrinec disagreed and was prepared to only "fine-tune his work grammatically". Ogrinec also rejected Tušek's reproach over too frequent use and citing of German literature, instead of his own articles published in the newspaper Novice. Ogrinec was especially dismayed by the reproach over the use of Germanisms. The committee empowered Tušek to rewrite Astronomy in an appropriate manner. Josip Pajek, who precisely analysed Tušek's Physics in *Slovenski narod*, was disturbed by this. Pajek published his analysis in an article where he determined inclusion of many

23 Jožef Stefan, "Naturoznanske poskušnje", *Glasnik slovenski,* No. 6, 1859, pp. 96-98. On the basis of Gutsman's dictionary vocabulary analysis Prunč warned that Slovene abstract vocabulary heavily depends on Germạn. The most words taken possesion of are those from the field of higher culture or dominating cultural educational practice; Erich Prunč: "Prispevek k poznavanju virov za Gutsmanov slovar", in *Obdobje razsvetljenstva v slovenskem jeziku, književnosti in kulturi* (Obdobja, 1980), pp. 209-211.

24 Compare to Željko Oset: "Vpliv modernizacije na oblikovanje slovenskega naravoslovno-tehničnega besedišča", in Žarko Lazarević, Aleksander Lorenčič (eds.), *Podobe modernizacije* (Ljubljana, 2009), pp. 350-373.

25 "In Slovenski narod a real adder has bred that is poisoning the heart of Slovene nation. Is there not a single intelligent man in Styria anymore, who would see this kind of treatment as ruin of Slovenehood?!" ARS, AS 621 Slovenska matica, box 3.

Croatisms.[26] Pajek was disturbed by the committee's use of Physics as an example, due to which the characteristics and needs of Slovene language were forgotten and led to a narrow "Slovene orientation". Tušek refused Pajek's reproaches in his letter to the committee and determined the existence of national mavericks –"*Zvekanovci*" in Slovene nation.[27] Thus, the inability of protagonists to reach a compromise led to a disunited vocabulary, which was in Maksimiljan Pleteršnik's opinion less damaging than the compulsory language standardization, which would (has) discourage(d) many writers. For this reason, Pleteršnik later refused Cigalet's suggestion for language standardization. As a result of the discussion on scientific terms writing and scientific apparatus standards, the committee adopted a decision that the key criterion for acceptance is quality writing. The responsibility for writing and style lied with the writers. The committee assumed the responsibility for review implementation. This passage was also a victim to conflicts. Due to the conflicts the committee approved a principle according to which the authors would not be allowed an insight into critics' opinions.[28] It is necessary to emphasize that *Slovenska matica* gave fee for translation, which was intended for original authorial works.[29]

Publishing a scientific dictionary was a significant step towards standardization of natural scientific terminology. The idea for publishing first appeared in 1867. The society would publish a professional dictionary as planned. Due to the lack of interest and vast expenses, the idea was not realized. The interest to read scientific contents in Slovene is indicated in a survey on the subscription to a paper *Slovenska matica*. 73 *Slovenska matica* members showed interest in subscription.[30] 9 years later, the president of *Slovenska matica* Janez Bleiweis tabled a motion for the issue of "*Naučni slovnik*", intended for a wider circle of subscribers. Dictionary would thus comprise words, *"which are today common in scientific, political, technical, commercial, and other domains, which cannot be transferred from other languages to Slovene language, and are also not used in the original form in other languages; and every person who is at least a little educated, notwithstanding the class they come from, must understand that a book or a paper is not incomprehensible."*[31] The motion gained support despite the tense ideal-political conditions governing *Slovenska matica* committee.

26 ARS, AS 621 Slovenska matica, box 4.
27 ARS, AS 621 Slovenska matica, box 4.
28 ARS, AS 621 Slovenska matica, box 6.
29 ARS, AS 621 Slovenska matica, box 4-6.
30 ARS, AS 621 Slovenska matica, box 4.
31 ARS, AS 621 Slovenska matica, box 7. The number of members decreased from 1595 in year 1872 to 980 in year 1880. The most members withdrew from the society in the years between 1872-1874, due to political conflict between members of Staroslovenci ("Old Slovenes") and Mladoslovenci ("Young Slovenes"). Even after the settlement of disagreement, the number of members was dropping, especially because of debtors cancellation. The number of members started to increase after the death of Slovenska matica president Janez Bleiweis (1881). ARS, AS 621 Slovenska matica, box 7-9.

Matej Cigale was chosen scientific terminology editor.[32] The editor addressed the project in accordance with Bleiweis's guidelines. He used two scientific dictionaries, Czech and Croatian, as a basic template, considering hitherto generally accepted terminology. Cigale used Russian dictionaries and Miklošič's old Slovene dictionary, albeit to a lesser extent. Cigale labelled his work as *"searching for a middle ground between classicism and purism"*. Composing technical terminology presented an especially pressing problem. He decided to make use of modern internationally accepted and established technical and scientific terms. In the foreword, he emphasized the necessity for *"forming homogeneous international terminology for strictly scientific matters and products of higher education"*.[33] In a private letter to Janez Bleiweis, Cigale lamented that while composing the book, he realized *"how awkward, inflexible and modest our language is."* A monograph was an indicator of cultural development and showed, to paraphrase Verdelski from the beginning of 1860's, happier times for Slovenes. Publishing of the monograph resulted in popularization of science, especially among young people, for whom the book was intended. The book was well accepted, especially by students in Graz and Vienna. It, therefore, represented the first stage of Slovene terminology development; later it was developing simultaneously with science. With the dictionary *Znanstvena terminologija*, the connection to German cultural space in the field of terminology was finally reinstated; it lasted till the 1950s.[34] Successful realization indicates freedom, political, economic, and ideal, all the necessary conditions for science.[35]

Even after publishing of *Znanstvena terminologija*, problems with forming terms did not become any smaller. Fran Hauptmann complained over the troubles with forming terms understandable to scholars. He had the most problems with clear conceptual definition of terms, which is the reason for his being uninclined to violent Slovenisation of technical terms, the products of modern era.[36]

Ivan Šubic had a similar opinion of Slovenisation of terms; he claimed that technics *"is today a common property of all cultural languages on the Earth, it is vain and causes unnecessary pains for a writer and a reader; it is a waste which even greater nations do not afford."* Ivan Šubic is the author of the first technical monograph in Slovene, and thus a very important example of forming technical terminology. In the foreword to his work *Elektrika* (Electricity), he wrote that he

32 Matej Cigale was an editor for Slovene part of Reicsgesetzblatt entitled Občni državni zakonik in vladni list Avstrijanskega cesarstva in years 1849-1852. Janez Kranjc, "Prispevek Frana Miklošiča k oblikovanju slovenske pravne terminologije v prvem letniku dvojezičnega izhajanja državnega zakonika in vladnega lista avstrijskega cesarstva", in Jože Toporišič, Tine Logar and Franc Jakopin (eds.), *Miklošičev zbornik* (Ljubljana, 1992), pp. 117-122.

33 Matej Cigale, *Znanstvena terminologija s posebnim ozirom na srednja učilišča* (Ljubljana, 1880), pp. VI–VIII.

34 Milan Vidmar, *Spomini: I* (Maribor, 1964), pp. 192-194, pp. 238-239.

35 Josip Pajk, "Svobodne misli o našej izobrazbi", *Kres, Poučen in znanstven list,* No. 9, 1881, pp. 510-520.

36 Fran Hauptmann, " Neprodirnost, v fiziki nepotreben izraz", *Kres, podučen in znanstven list,* No. 1, 1885, pp. 45-53.

used expressions with "cosmopolitan right". In the foreword to the monograph, Šubic complained that *"he had to break a lot of new ground"*. Despite all his efforts, he was gladdened by the fact that natural science and technics were not so exposed to internal cultural struggle (*"occupation with electro-technical science is a real comfort and consolation"*)[37] and were also less involved in direct national struggle; as such, they maintained international cooperation in the era of national competition which escalated to "*Kampf des Geistes*" due to French-German rivalry.

Slovene technical terminology developed further. Ivan Šubic made an ambitious suggestion about publishing a Slovene technical dictionary in March 1904 in *Slovenska matica*. Šubic drew attention to the activities of the Prague society *Ilirija* and the societies of Slovene and Croatian technicians in Vienna, who collected useful technical terms. On his proposal, the committee of *Slovenska matica* established a steering subcommittee for publishing a Slovene technical dictionary. Despite good intentions, this project phase of collecting the terms was not carried out. Publishing a great technical dictionary was a huge financial undertaking; according to an engineer Gustinčič from the Association of Engineers in Ljubljana, there were between 100 and 200 potential subscribers.[38] The establishment of the University in Ljubljana represented a major turning point. Lecturers prepared lectures in Slovene language. The study program was based on German books, as none of the publishers dared to publish the scripts of Milan Vidmar. Professors were publishing their research mainly in a German professional periodical publication and at German publishers.[39]

The extension of the Engineering Faculty after the Second World War and the establishment of Terminological Commission of the Slovene Academy of Sciences & Arts was a turning point for technical and engineering terminology. With systematic work, the engineering section of the Commission published the first general technical dictionary in the years from 1962 to 1964.[40] The dictionary was published in collaboration between researchers and engineers in the work process.[41] This was the end of an era of testing and creation of a coherent scientific and technical terminology.[42]

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The process of acceptance of the evolution theory was something completely different. Firstly, it is worth stressing that Darwin's theory was not oriented

37 Ivan Šubic, *Elektrika, nje proizvajanje in uporaba* (Ljubljana, 1897).
38 ARS, AS 621 Slovenska matica, Box 26.
39 Milan Vidmar, *Spomini: I.* (Maribor, 1964), pp. 238-239.
40 Archives of SAZU, 2 Presidency of SAZU, the Presidency Meetings 1953-1963, folder 9.
41 Archives of SAZU, 2 Presidency of SAZU, the Presidency Meetings 1953-1963, folder 1.
42 *General technical dictionary* (Ljubljana, 1962-1964).

anti-religiously. As Darwin pointed out in his letter to a Cambridge professor Adam Sedgwick, he only published the results of his work, in which he put all his best efforts. Completely different views on the evolution theory developed on the continent, notably in Germany. The main advocate of the theory Ernst Häckel set the theory against religion. Therefore, Darwinism was a part of a cultural battle scheme. The Slovene area is a typical example of an area where the theory was not accepted because the mentality was saturated with Christian beliefs. Nevertheless, Slovene intellectuals were familiar with it since its coming out, or in particular since the German translation of Origin of Species in 1860, which proves that they were integrated into the European scientific transfer. This was mainly thanks to the students, as some of them (privately) accepted the evolution theory.[43] This raises a question of freedom as a necessary condition for scientific activity. The question of freedom was one of the criticisms as to why not establish University in Ljubljana. Despite everything, the evolution theory was enforced gradually, ultimately after the Second World War.[44] Hence, everything not based on this theory was rejected. Within this frame, we need to understand the newspaper controversy with German press, which was criticized by Slovene public for deteriorating Christian mentality and for being linked with Judaism and Freemasons.[45] The evolution theory was integrated into Slovene-German antagonism (the advancement as apotheosis of Germanhood, traditional regression as basic characteristic of Slovenehood). Journalists frequently criticized religion for inhibiting the progress. A similar criticism was addressed to national programs which exposed religion as one of the key components, therefore national programs were an obstacle to progress. In the constitutional period, these criticisms were often launched to Slovene national leaders by German politicians and publicists.[46] The state of mind at the beginning of the constitutional era can be illustrated by a rhetorical question put by a Slovene correspondent in Vienna: "*Can't we exist without that mighty education? Can't we just live without following the same educated ideas? /.../ empty and in vain, which is written in journalistic workshops, is sinful not only to nations, but even more against the most sacred, against religion.*" The acceptance of the theory by a few professors and students at the Austrian universities has not gone unnoticed in the Slovene press. It was underlined in Slovene journals that German universities teach new knowledge, "*the wisdom that fills geography, nature science, history and religions of all scholarliness with its errors, and wants to discourage readers from religion, from God, peace and from salvation.*"[47]

43 Željko Oset, "Recepcija evolucijske teorije in enciklike Quanta cura", *Prispevki za novejšo zgodovino,* No. 2, 2009, pp. 7-20.

44 Jovan Hadži, "Darwin in njegovo delo", in Charles Darwin, *O nastanku vrst* (Ljubljana, 1954), pp. 5-19.

45 *Zgodnja danica,* 17. 1. 1861, p. 15; *Zgodnja danica,* 11. 4. 1861, pp. 60-61.

46 "Živi, živi duh slovenski", *Slovenec,* 5. 2. 1867, No. 15, p. 64; Vasilij Melik, *Slovenci 1848-1918* (Maribor, 2002), pp. 188-189.

47 "Ein Schurke, der sein Vaterland nicht liebt", *Zgodnja danica,* 25. 11. 1858, p. 187; *Zgodnja danica,* 28. 3. 1861, p. 51.

Slovene newspapers insisted that Darwinism was accepted mainly by German students. A report from the banquet of a German politician and poet Arndt, which was organized in Prague by a German student association *Germanija*, is an example. It stated: *"Some scientists teach that human is brother to a monkey /.../ we heartless Slavs shall not accept this!"*[48] Another example of this period which alarmed the Slovene public was the speech of Oskar Schmidt upon taking up the position of a chancellor at Karel-Franc University in Graz in October 1865. A correspondent from Graz wrote for Slovenec that *"chancellor is one of those Forschers who only acknowledge Stoff as their God, each divinity is nonsense." The c*hancellor emphasized that religion cannot set bounds to *"free knowledge"*. Knowledge is namely "absolutely" free and has nothing to do neither with religion nor with enactments or self-willed laws of church authority. The correspondent of *Slovenec* circulated a rumour in his report saying that the chancellor is a member of the Masonic lodge. He specifically emphasized the demonstration by theology students and the German students' (*Burschen*) vote of confidence. The said motion of confidence introduced to the chancellor was signed by 232 out of 620 students of the Graz University. The author pointed out that the letter was signed by only a few Slovene students.[49] The fear of Slovene students in Austrian schools of losing their Slovene (read Christian) spirit is clear from the aforementioned letter. This theme was present in Slovene journals till the First World War.[50] This fear was one of the reasons for establishing a Slovene university in Ljubljana. Josip Puntar wrote a few years before the First World War that the planned Slovene university would not be *"a shelter and a fireside of freethinking propaganda"*. According to Puntar, *"decisive factors"* would oppose that kind of university. It is necessary to mention that Puntar did not exclude the possibility of accepting science based on non-Christianity. This might become a reality after the past *"rather cultural crises"*.[51]

An unpublished detailed theological report entitled "Moses hexameron and Darwin's theory" is the most comprehensive review of the evolution theory and its critical analysis in Slovene language. An unknown writer domiciled at Šent Pavl in Savinjska dolina prepared it before 1889. In the report, he summed up a chronology of different views on the creation of man and discussions on this topic. All who have publicly questioned the biblical story of the creation of life

48 "Košček slepe culture", *Zgodnja danica*, 20. 3. 1862, p. 72.

49 "Chancellor's speech", "Živi, živi duh slovenski", *Slovenec*, 6. 12. 1865, No. 94, p. 378. Due to the views of laic faculties on theology, in the early 1860's Cardinal Rauscher was thinking of establishing a Catholic University. In *Zgodnja danica,* No. 8, 14. 4. 1859, p. 64; *Zgodnja danica,* 24. 11. 1859, No. 25, pp. 190-191; Compare to Hans Lentze, *Die Universitätsreform des Ministers Graf Leo Thun-Hohenstein* (Vienna, 1962), pp. 36-49.

50 Vasilij Melik - Peter Vodopivec, "Slovenski izobraženci in avstrijske visoke 1848-1918", *Zgodovinski časopis,* No. 3, 1986, pp. 275-281; Josip Puntar, "Na poti do vseučilišča: I.", *Dom in svet,* 1909, pp. 319-325.

51 Josip Puntar, " Na poti do vseučilišča: II.", *Dom in svet,* 1909, p. 355.

are briefly presented. In the text, the author referred to the Bible, to Lavoslav Gregorc (*Mala apologetika* or *Prijazni zagovori sv. katoliške vere*) and to J. M. S. (*Lesefrüchte, Christlichen Freunden der Natur gewidmet*), Martin Konrad (*Lehrbuch des katholischen Glaubens und Sittenlehre*), Leopold Libermann (*Institutiones theologicae*) and to the newspaper Rad of the Yugoslav Academy of Sciences (volume 30).[52] The point of the article is the rejection of Darwinism. The author uses a neotomistic view. Namely, he emphasizes that the adoption of the evolution theory would cause a demolition of the existing Christian civilization.

According to author, the first opponents of the biblical dogma of the creation of life were "*pagan Gnostics and Manicheans*" from the second and third century. The French Encyclopaedists were the next opponents, especially Voltaire and Rousseau. In fact, the Encyclopaedists "*kept the creation from nothing secret*". They are accredited the key role in the development of materialism and pantheism. In the 19th century, the creation from nothing was opposed by "*so called modern philosophers, great and small nature scientists - naturforschers and especially geologists.*" The question of the beginning was a question of a biblical dogma of direct creation of man. A Calvinist Izak Peyere, a doctor from Bordeaux in the 17th century, was the first who publicly opposed this. The Encyclopaedists also expressed concerns about the creation of man. Among others, Voltaire opposed the dogma of a common origin of mankind from the relationship of Adam and Eve. Considering various identifiable characteristics, humanity must have come from a number of relationships. The author of study indicates that Voltaire was followed by nature scientists who formed a theory of the creation of man through the evolution from less developed living species. Darwin was stated as the main agent (*"of this theory - not so much an inventor, but rather an interpreter"*), and Ernst Häckel as the main advocate. Hereby we have to stress that Darwin's theory was opposed by renowned nature scientists like Aleksander Humboldt, Rudolf Virchow, H. Burmeister, Augusst Quenstedt and Charles Lyell. As a basic slogan, the author stated: "*a human is nothing but an animal, though the most developed*". He criticized Darwin for not substantiating the theory by evidences, "*which with their logical consistency would force us to confirm them*". Therefore, he described the theory as "*fantasy at best*". The author pointed out some thoughts he found particularly controversial: beside their instincts, animals have got a mind (an example of ownership), the ability to speak, an aesthetic sense of beauty, and even some kind of a sense of religious devotion. The writer of the mentioned

52 In Croatia, the public debate on Darwin's doctrine was held since 1870 onwards. In this discussion participated Dr. A. Kržan, a Slovene from Bizeljsko. In years from 1874-1877 he published a series of articles in Katolički list. A key supporter of the evolution theory professor Spiro Brusina honored Kržan for his sober and learned approach. We should stress that Jovan Hadži (a Zoology professor after the establishment of University of Ljubljana) published several articles on the evolution theory in Croatian newspapers. ARS, AS 621 Slovenska matica, box 36; Miroslav Zei, "Darwinizem pri Slovencih", in Marcel Prenant et al., *Knjiga o Darwinu* (Ljubljana, 1959), pp. 265-269.

detailed report was especially disturbed by the fact that Darwin mentioned that evolution of man happened naturally, in his fight for survival. Hereby he made a cynical remark: "*Then why didn't a human inherit all the characteristics that would facilitate his survival.*"[53]

The article discusses the relationship between Darwinism and Christianity. The author is convinced that the adoption of the evolution theory would put humanity back to savagery, consequently, the civilization achievements would be lost ("*this would be followed by a period of selfishness and profanity, moral delinquency and anarchy, cultural people would become savages and the world would withdraw into the darkness of the toughest moral night*"). The author describes Darwinism as "*atheism in the worst hopeless manner*", but he believes that its purpose is to prepare a man for religion, that "*God has nothing to do with or is not interested in human affairs.*" Therefore, the author believes that the evolution theory cannot be consistent with the Bible, especially not with the story from the first Book of Moses, nor with fundamental thoughts of revelation (with the fall from Eden or with the original sin and salvation of a man). He pointed out that Darwin mentions God, but not as a creator. This is characterized as a deliberate deception. He rejected the thought of freedom as a "*natural inevitability*". He mentioned the linguistic diversity, which casted first doubts on the veracity of the biblical story on the creation of a man. The author cautioned that contemporary comparative linguistics defines lesser language diversity. This should be a proof for greater affinity between language groups as it was the case hitherto.[54]

In the context of the acceptance of the evolution theory, Pajek's experiment in the 1880's on the compatibility of the evolution theory and the biblical story on creation is interesting. Pajek highlighted the significance of education and freedom for scientific activity.[55] The failure is a result of strengthening of differentiation of ideas and principles, which is why opponents were becoming more and more sensitive to changes. Pajek's attempt was not successful. Darwinism was still a theory based on non-Christian background. Nevertheless, some premises of the evolution theory were adopted, notably the contemplation on the survival of a stronger offspring.[56] Meanwhile, different standards were shaped in literature, which can be seen from a harsh response of the reviewers of Štrekelj's project of Slovene folk songs. Reviewers evaluated the syntagm "*poor animal*" as an example of Darwinism and materialism. In a letter of 2 June 1896 to the committee of *Slovenska matica,* Karel Štrekelj rejected the allegations as unfounded and emphasized that the critics were using "*Mahnič's methods*".[57] These tensions between the reviewers and Štrekelj represented the first in a series of misunderstandings which caused the ideological-

53 ARS, AS 621 Slovenska matica, box 36.
54 ARS, AS 621 Slovenska matica, box 36.
55 Janko Pajk, " Svobodne misli o našej izobrazbi ", *Kres*, No. 9, 1881, pp. 512-516.
56 Gvidon Sajovic, " Predgovor" in Fran Erjavec, *V naravi: Izbrani naravoslovni spisi Frana Erjavca* (Ljubljana, 1909), p. 3.
57 ARS, AS 621 Slovenska matica, box 33.

conceptual tensions in *Slovenska matica.*[58] In the era of ideological-conceptual differentiation in the early 20th century, Darwinism gained a passionate advocate Gvidon Sajovic. He published a series of articles entitled "*O človeškem pokolenju*" (On Human Generation) in Naši zapiski (Our Notes) in the years from 1904 till 1905. Pavel Grošelj was another defender besides Sajovic in the early 20th century. He popularized the evolution theory and shared his cognitions at numerous public lectures.[59]

We should recognize that both the defenders and the opponents of the evolution theory were avoiding public controversy. However, the controversy developed in 1904 when Boris Zarnik published an article on Ernest Häckel in the newspaper *Slovenski narod* on the occasion of his 70th anniversary.[60]

Before parliamentary elections in 1907, a more substantial public controversy flared up. Liberals organized a lecture of professor Dr. Gorjanović Kramberger at the Ljubljana Union hall. The theme of lecture was "*Diluvial man and his relationship with a modern man*". As the invitation promised an interesting lecture, they expected great participation.[61] Two days after the invitation had been published, the newspaper *Slovenec* reported on the discussions of Erich Wasmann (*"an educated and famous catholic nature scientist"*) and Ernst Häckel. In addition, Slovenec published a series of Wasmann's extensive monograph summaries "*Die moderne Biologie und die Enwicklungstheorie*". The newspaper *Slovenski narod* reacted with a series of criticisms on Wasmann's monograph.[62]

Slovenec described the lecture organization as an inability of the liberal party to collect sufficient number of voters. Therefore, the liberal party election program was described with the following words: "*to recognize free-thinking false doctrines, lies and tricks.*" They also commented on the evolution theory that "*scholars gave Darwin's theory ad acta*". The liberals' views were described as conservative, since the theory would take human mentality back to the age of the Krapina man. Eventually, a new species *"homo priigenius liberalis"* might develop, they added at the end of the article.[63]

Both newspapers, *Slovenec* and *Slovenski narod* published a lecture report. After the lecture, a newspaper controversy arose as to whether Kramberger marked morphological similarity with Krapina man as analogies or homologies.

58 Željko Oset, "Idejnopolitični spori v Slovenski matici od konca 19. stoletja do prve svetovne vojne", *Prispevki za novejšo zgodovino*, No. 1, 2009, pp. 93-108.

59 Miroslav Zei, "Darwinizem pri Slovencih", in Marcel Prenant et al., *Knjiga o Darwinu* (Ljubljana, 1959), pp. 265-269.

60 Marko Aljančič, "Boris Zarnik v slovenskem kulturnem življenju", in Ivanka Brglez, Velimir Vulikić, Zora Konjajev (eds.), *Zbornik skrajšanih referatov: II* (Ljubljana, 1985), pp. 45-46.

61 "Akademija", *Slovenski narod*, No. 37, 14. 2. 1907, p. 2.

62 "Slovenec in Wasmann", *Slovenski narod*, No. 39, 16. 2. 1907, p. 3. Author of the review was Boris Zarnik, a doctor of nature sciences who managed to habilitate at University in Würzburg at Zoology in 1910. Boris Zarnik, "Curriculum vitae", in Ivanka Brglez, Velimir Vulikić, Zora Konjajev (eds.), *Zbornik skrajšanih referatov: II* (Ljubljana, 1985), pp. 35-38.

63 "Homo primigenius", *Slovenec*, No. 40, 18. 2. 1907, p. 1.

Slovenec emphasized that the lecturer talked about analogies, while he abstained from defining of "*tendentiously fictional hypotheses*". At the end of the report, *Slovenec* added views of eminent scientists who expressed methodical doubt on the evolution theory.[64] Despite this, the report of the lecture represents a substantial progress in the adoption of the evolution theory. Namely, *Slovenec* expressed its position on man and ape being the top of a food chain of two completely different developmental species, but they do meet in a hypothetical phylum.[65]

Pavel Grošelj, correspondent of *Slovenski narod*, wrote in the report that Kramberger in a private conversation expressed his view that man and human ape were two parallel lines from one common origin.[66] A correspondent of *Slovenec* found the use of a private conversation an abuse. He stressed that years ago Grošelj had publicly lectured the ape theory.[67]

In this period, the views on the evolution theory converged to a considerable extent. Celebrating the centenary of the birth of Charles Darwin, the editorial of *Slovenec* published Boris Zarnik's article entitled "Darwin and the World Opinion" accompanied with a longer explanation.[68] This gesture of the *Slovenec* editorial was unique as it gave an opportunity to the most articulated advocate of the evolution theory. At this point we should emphasize that since the cultural issues had been exposed, communication became more difficult. A symptomatic case was the organization of celebration of the 400th anniversary of Primož Trubar's birth, which jagged relations within *Slovenska matica*.[69]

Speaking of acceptance, we have to mention the attitude of Slovene opinion makers towards eugenics. The first records of this appeared in 1912, namely within the context of a nation hygiene. The Catholic Church was against the abortion and sterilization as those were the basic methods for achieving objectives of eugenics; consequently the church opposed the ideas of eugenics. The anthropological section of the Hygienic Institute in Ljubljana was responsible for spreading of eugenic ideas in the 1930's. Among them we have to mention dr. Božo Škerlj[70], dr. Franc Derganc[71], dr. Ivan Jureček and dr. Nik Župančič.[72]

64 To intellectual authority reffered also Grošelj, who stated a part of Darwin's letter to Häckel from 1879: "Virchows conduct is shameful, and I hope he will someday feel ashamed."; "Homo primigenius in homo sapiens recens", *Slovenec*, No. 40, 18. 2. 1907, pp. 2, 4.

65 Ibid., pp. 2, 4.

66 "Diluvijalni človek in njegovo razmerje do modernega človeka: Nekoliko misli k predavanju prof. dr. Gorjanovič Krambergerja", *Slovenski narod*, No. 43, 21. 2. 1907, p. 2.

67 "Iz Savla Pavel", *Slovenski narod*, No. 44, 22. 2. 1907, p. 2.

68 Marko Aljančič, "Boris Zarnik v slovenskem kulturnem življenju", in Ivanka Brglez, Velimir Vulikić, Zora Konjajev (eds.), *Zbornik skrajšanih: II* (Ljubljana, 1985), pp. 45-46.

69 Compare to Željko Oset, "Idejnopolitični spori v Slovenski matici od konca 19. stoletja do prve svetovne vojne", *Prispevki za novejšo zgodovino,* No. 1, 2009, pp. 93-108.

70 Škerlj was carrying out "eugenic investigations" on "less talented" children and prostitutes. He was also the editor of "*Evgenika*", the enclosure of "*Zdravniški vestnik*", issuing from 1935 till 1938.

71 He was engaged in natural selection at Sokol's gymnasts. Franc Derganc, "Poglavje o telovadcih in duhotelovadcih", *Sokolski glasnik*, 1920, pp. 159-165.

72 Andrej Studen, *Pijane zverine: O moralni in patološki zgodovini alkoholizma na Slovenskem v dobi meščanstva* (Celje, 2009), pp. 152-160.

As a private lecturer at the University in Ljubljana, Božo Škerlj wrote in the script that Yugoslavia was among a few countries where anthropology was not given a suitable space in higher education. Namely, anthropology was taught as optional and special subject at all three Yugoslav universities. In the aforementioned script, he caught the essence of the problem of the evolution theory adoption - unimaginable kinship of man and ape. The kinship can be proven only with precipitin reaction, which was successfully carried out already in 1900.[73]

The evolution theory was incorporated in other levels of formal education after the Second World War in a changed social-economic system.[74] As early as in 1929, the evolution theory was incorporated indirectly, when *Sokol* of the Kingdom of Yugoslavia took over physical education by the new school regulation.[75] All this triggered a lively debate and a more intense cultural struggle. At the end of 1929, Pope Pius XI released an encyclical "*Divini illius magistri*". With it, he wanted to stress the primary role of the church in youth education.[76] Following this guideline, we should mention the debates of the bishop from island Krk Jožef Srebrnič, who analysed Tyrš's spirit as basics of *Sokol* ideology for this purpose. He paid particular attention to the evolution theory (struggle for survival), ideas of French revolution, Greek ideals of harmony, commitment to terrestrial life and a relativity theory. Srebrnič estimated that philosophy of *Sokol* is in contrast to the Christian religion. He stressed that Tyrš's philosophy is being hidden from the members.[77] Srebrnič made a correct estimation, as in the gazettes of *Sokol*, the evolution theory was in the background compared to the professional matters (exercise methods).[78]

73 Božo Škerlj, *Človek: Izbrana poglavja iz prirodoslovja človeka* (Ljubljana, 1934).

74 Jovan Hadži wrote in the accompanying study to the Slovene translation of Origin of Species that translation is necessary because of the knowledge of the turning point in the original. As he pointed out, the theory of evolution is available in Slovene, which is in logical connection to dialectical and historical materialism. The need for translation was greater because of the fact that materialism represented an assumption of Marxism. Jovan Hadži, "Darwin in njegovo delo", in Charles Darwin, *O nastanku vrst* (Ljubljana, 1954), p. 5, pp. 18-19.

75 Ervin Dolenc, *Kulturni boj: Slovenska kulturna politika v Kraljevini Jugoslaviji 1918-1929* (Ljubljana, 1996), pp. 273-277.

76 Tomaž Pavlin, *Razvoj sokolstva v Sloveniji med leti 1929-1941* (Ljubljana, 2000), pp. 152-153.

77 Jožef Srebrnič, *Tyršev duh* (Domžale, 1931); Compare to Josip Srebrnić, Fiat Lux (Zagreb, 1931).

78 Compare to Viktor Murnik, *Ob sedemdesetletnici Ljubljanskega Sokola* (Ljubljana, 1934). The answer to this is provided in the speech of the Sokol president dr. Vladimir Ravnihar at the general assembly of Sokol on November 20th 1925. He pointed out sociability and integration of Slovene enthusiasts as being the main purpose of Slovene associations since the beginning of the constitutional period. Vladimir Ravnihar, ""Narodni dom", institution of arts and sciences", *Slovenec*, No. 266, 22. 11. 1925, p. 4.

Conclusion

Since 1848 a gradual strengthening of scientific cognitions and neo-humanist ethos is noticeable in Slovene journalism. Successfulness and notably acceptance dynamics depended on the compatibility with Christian tradition. The key argument against the novelties or modernization is the thesis on denouncing the fundamental characteristics of Slovenehood (Christian religion). Accelerated modernization of Slovene mentality was influenced by a successful establishment of Slovene secondary schools, strengthening the scientific and class societies, and later by foundation of a university. The aforementioned institutional achievements resulted in a greatly enlarged circle of users. At the beginning of 1870s, there were only 73 potential Slovene scientific newspaper subscribers.

This paper presents the acceptance of modern scientific achievements in Slovene language after the March Revolution in 1848. The acceptance is presented by the problem of technical invention and evolution theory. The intellectuals from Slovene area were thus included in common, complex cultural exchanges. Problem with inventions was creating Slovene terminology. The natural science terminology obtained more defined and systematic contours when first Slovene learning books for Slovene secondary schools were published in the 1870's, 1880's and 1890's. An important step toward a comprehensive terminology was a dictionary "*Znanstvena terminologija*", which was published by *Slovenska matica* in 1880. Slovenes had to "wait" for 82 years to get the first general technical dictionary. The dictionary was published by collaboration of researchers and engineers. This was the end of an era of testing and creating of a coherent scientific and technical terminology. The process of acceptance of the evolution theory was something completely different. Slovene intellectuals were acquainted with the theory. Because of the strong opposition from the Church, broader acceptance was limited. We should emphasize that the evolution theory was an object of cultural and national struggle. Broader acceptance started in the 20th century with a series of public lectures. The evolution theory was incorporated in other levels of formal education after the Second World War in a changed social-economic system.

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