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## *The Economic History of Slovenia, 1828-1918: A Survey of the Literature\**

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### *Introduction*

In a 1947 paper on "Contemporary Problems and Tasks of Slovene Historiography," Bogo Grafenauer underlined the need for changing the focus of Slovene historical research from political and cultural aspects toward problems of economic and social development. "Thus," in Grafenauer's words, "the history of the Slovene territory, which had been hitherto treated similarly to the history of any of the Austrian Alpine Lands, would finally become the history of the Slovene nation."<sup>1</sup>

This paper examines the accomplishments made in the direction suggested by Grafenauer during the thirty years following his paper. The coverage is limited to literature pertaining to the period between 1828 and 1918, the lower limit of which marks the introduction of modern mechanized industry into the present Slovene political territory, as evidenced by the opening of a mechanized cotton spinnery in Ajdovščina. The upper limit is the date when Slovenia's millennial association with the German Roman Empire and the

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<sup>1</sup> BOGO GRAFENAUER, *Problemi in naloge slovenskega zgodovinarstva v našem času* (Problems and Tasks of Slovene Historiography in Our Time), "Zgodovinski časopis" (hereafter "ZČ"), 1 (1947), p. 23.

succeeding Austrian Empire came to an end, following the disintegration of Austria-Hungary.

The period between 1828 and 1918, fraught with economic and social change, saw the emergence of a socially differentiated and nationally conscious Slovene society.<sup>2</sup> Without this phenomenon there would have been little reason for treating events in the Slovene territory as national in scope. In economic historiography many obstacles had to be overcome, however, before a national perspective could emerge. One should bear in mind that economic history relies on quantitative observations, and since statistical data are collected for political units, any change in the boundaries of such units necessarily interferes with the continuity of historical series. In the Slovene case, in 1918, and again after World War II, the new political boundaries cut not only across former provincial, but across county lines as well.

Despite these difficulties, several successful attempts at reconstructing historical series for the present-day political territory have been made during the last two decades in the areas of demographic data,<sup>3</sup> data on the share of agricultural population,<sup>4</sup> data on the share of urban population,<sup>5</sup> and most recently data on the share of forests in the total land area.<sup>6</sup> Except for V. Melik's study of urban population, these series have been produced by non-historians, specialists in the fields of demography, applied statistics, and forestry, seeking to place their current statistical measurements within the perspective of a secular trend.

Professional historians have voiced moderate criticisms against some of these reconstructions. They would have preferred that the data included Slovene-speaking areas outside of the SR Slovenia.<sup>7</sup> Moreover, it was felt that in Vogelnik's demographic study conclusions had been drawn from a

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<sup>2</sup> Cf. TOUSSAINT HOČVAR, *Economic Determinants in the Development of the Slovene National System*, "Papers in Slovene Studies" (New York), 1975 pp. 27-78. Published also in Slovene and Italian translations in "Most" (Trieste), 1976, n. 47-48, pp. 16-49.

<sup>3</sup> DOLFE VOGELNIK, *Razvoj prebivalstva Slovenije zadnjih dvesto let z jugoslovanske in evropske perspektive* (Development of the Population of Slovenia from Yugoslav and European Perspectives), "Ekonomski zbornik", 7 (1965). Separate pagination, 136 pp.

<sup>4</sup> ŽIVKO ŠIFRER, *Demografski razvoj kmečkega prebivalstva v Sloveniji* (Demographic Development of Agricultural Population in Slovenia), "Prikazi in študije" (hereafter "PS"), 8 (1962), n. 10-11, pp. 1-66.

<sup>5</sup> VASILIJ MELIK, *Rast mestnega prebivalstva na Slovenskem pred prvo svetovno vojno* (Growth of Urban Population in Slovenia before World War I), "Ekonomska revija", 7 (1956), n. 4, pp. 507-24.

<sup>6</sup> LOJZE ŽUMER, *Delež gozdov v slovenskem prostoru* (The Share Forests in the Slovene Land Area), Strokovna in znanstvena dela 50, Inštitut za gozdno in lesno gospodarstvo pri Biotehniški fakulteti v Ljubljani, Ljubljana 1976.

<sup>7</sup> BOGO GRAFENAUER, *Problemi in naloge slovenskega zgodovinopisja v zvezi z obdobjem do 1918* (Problems and Tasks of Slovene Historiography for the Period up to 1918), "ZČ", 23 (1969), p. 197.

relatively modest number of sources,<sup>8</sup> and that Šifrer's series, drawn from Austrian decennial censuses, lacked consistency for the period before 1890 because of variations in the definition of data between censuses.<sup>9</sup>

These criticisms notwithstanding, the compilation of historical series applicable to modern Slovenia represents a pioneering accomplishment. One would like to see similar efforts applied to other data, since an extended data base would allow for analytical comparisons and for possible application of cliometric techniques.

As regards post-World War II literature on the nineteenth-century Slovene economic history in general, several converging developments contributed to a fairly continuous output of books and journal articles, starting with the 1960's. At that time a number of historians who had issued from the Ljubljana historical school, which stood under the eminent leadership of Milko Kos (1892-1972), reached their productive stage. A second strain of research, with a legalistic orientation, but infringing on economic and social aspects, followed in the path of interwar law historians Metod Dolenc and Janko Polec. Yet another group, specializing in historical land-use studies, came from the geographical school of Anton Melik and Svetozar Ilesič. Finally, the pre-1945 ethnographic work of Rajko Ložar provided a basis for studies in cultural anthropology.

In addition to the post-war generation of scholars, two men who retired from business and public life shortly after World War II contributed to literature in economic history. The first was the late Ivan (Johann) Slokar (1884-1970), the author of *Geschichte der österreichischen Industrie und ihrer Förderung unter Kaiser Franz I* (Vienna, 1914). A historian by training, Slokar occupied a leading position in the Slovene cooperative business sector between the two wars. After World War II he resumed historical research, concentrating on individual business histories for the pre-industrial and early industrial period. Ivan Mohorič, who had studied law and law history in Prague, served during the interwar period as Secretary of the Slovene Manufacturers' Association in Ljubljana and as Minister of Commerce and Industry in Belgrade. From his pen came, after World War II, a steady stream of contributions on the history of crafts, mining, metallurgy, and railroads.

Besides the presence of the aforementioned researchers, several institutional developments helped to stimulate historical inquiries. In 1974 the Historical Society for Slovenia began publishing their journal *Zgodovinski casopis*. In 1953 the local history section of the Society started with the publication of *Kronika*, a successor to the prewar *Kronika slovenskih mest* (1934-1940). It should be noted that *Kronika* is not limited to contributions in local history,

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<sup>8</sup> FRAN ZWITTER, in "Gospodarska in družbena zgodovina Slovencev. Zgodovina agrarnih panog, I. zv.", Slovenska akademija znanosti in umetnosti - Državna založba Slovenije, Ljubljana 1970, p. 64.

<sup>9</sup> GRAFENAUER, *Problemi... do 1918*, p. 199.

but contains many articles of a broader scope, especially in the field of economic history. *Časopis za zgodovino in narodopisje*, which ceased publication following the German occupation in 1941, reappeared with a New Series in 1965. Now under the sponsorship of the University of Maribor, the journal specializes, but is not confined to, papers dealing with the history of eastern Slovenia.

Also important in promoting research in modern economic history is the Institute for the History of the Workers' Movement in Ljubljana. From the very beginning researchers in this institution realized that the history of the workers' movement represented an integral part of general economic and social history and have oriented their research accordingly. Workers and collaborators of the Institute contribute to various outside publications as well as to the in-house annual publication *Prispevki za zgodovino delavskega gibanja*.

The survey of major publications in the field would be incomplete without mentioning the encyclopaedic, multi-volume *Gospodarska in družbena zgodovina Slovencev* (Economic and Social History of Slovenes), edited by the Slovene Academy of Sciences and Arts. The first, 650-page volume of this work, dealing with the history of agrarian production, came out in 1970. It is a valuable source of information and a guide to primary and secondary sources in the fields of demography, colonization, agrarian technology, and rural material culture in general.

Apart from the above mentioned central publications, materials of interest to the economic historian appear through such outlets as commemorative business publications, industry journals, as well as regional journals (e.g., *Primorska srečanja*) and annuals (e.g., *Loški razgledi*). However, materials in this category are not of a uniform standard and include articles of a popularizing nature without the necessary critical apparatus.

In the following we will survey the more important literature falling within the scope of this paper. Except for the first section on human resources, the organization is by principal economic sectors. As regards more general treatment of nineteenth-century economic history, we cite the surveys by Gestrin,<sup>10</sup> Grafenauer,<sup>11</sup> and Churkina<sup>12</sup> — the latter focusing on industry — as well as this author's<sup>13</sup> synthesis of developments since 1848.

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<sup>10</sup> FERDO GESTRIN, *Oris gospodarstva na Slovenskem v prvem obdobju kapitalizma do leta 1918* (A Survey of the Economy of Slovenia during the First Period of Capitalism up to 1918), "Kronika", 17 (1969), n. 3, pp. 129-38.

<sup>11</sup> BOGO GRAFENAUER, *Slovenija. Ekonomika* (Slovenia. Economics), in "Enciklopedija Jugoslavije", vol. 7, Jugoslavenski leksikografski zavod, Zagreb 1968.

<sup>12</sup> ISKRA V. CHURKINA, *Razviti kapitalizma v slovenski promyshlenosti: vtoraja polovina XVIII - sredina 70-kih godov XIX. v.*, "Uchenye zapiski Instituta slavianovedeniia Akademiiia nauk SSSR", 30 (1966), pp. 54-73.

<sup>13</sup> TOUSSAINT HOČEVAR, *The Structure of the Slovenian Economy, 1848-1963*, Studia Slovenica V, Studia Slovenica, New York, 1965.

*History of the Development of Human Resources*

The heading above has been chosen as a portmanteau for research in demographic history, for studies dealing with the quality of human resources, and for a brief reference to the history of the educational system.

In the Introduction we have referred to the work in demographic history by Vogelnik, which enlarges upon, but does not supersede, the study of population growth within the entire Slovene ethnic territory published before the war by Zwitter in the style of the *Annales* School.<sup>14</sup> A regional study containing demographic data for Slovene Carinthia came from the pen of Pleterski,<sup>15</sup> while Valenčič<sup>16</sup> researched demography of Slovenske Gorice in Slovene Styria.

Changes in industrial and urban-rural structure of population are the subject of several special studies. The share of agricultural population since the middle of the nineteenth century has been calculated by Šifrer, as mentioned in the Introduction. Still to be researched, however, is the industrial structure of nonagricultural population as well as the occupational structure of the labour force. Growth of urban population has been dealt with by V. Melik,<sup>17</sup> Lunder,<sup>18</sup> Vrišer,<sup>19</sup> and most recently by Cerovac.<sup>20</sup>

Since growth of the nonagricultural sector was insufficient to compensate for the displacement of employment which industrialization caused in the traditional sector, emigration engulfed the countryside during the last two

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<sup>14</sup> FRAN ZWITTER, *Prebivalstvo na Slovenskem od XVIII. stoletja do današnjih dni* (Population in Slovenia from the XVIIIth cent. up to the Present), Razprave Znanstvenega društva v Ljubljani 14, Historični odsek 5, Ljubljana 1936.

<sup>15</sup> JANKO PLETERSKI, *Narodna in politična zavest na Koroškem. Narodna in politična orientacija prebivalstva Slovenske Koroške v letih 1848-1914* (National and Political Orientation of the Population of Slovene Carinthia during 1848-1914), Slovenska Matica, Ljubljana 1965.

<sup>16</sup> VLADO VALENČIČ, *Prebivalstvo v Slovenskih goricah v preteklosti do današnjih dni* (Population of Slovenske Gorice in the Past and up to the Present), in "Svet med Muro in Dravo", Obzorja, Maribor 1968, pp. 324-45.

<sup>17</sup> VASILJ MELIK, *Rast mestnega prebivalstva na Slovenskem pred prvo svetovno vojno* (Growth of Urban Population in Slovenia before World War I), "Ekonomski revija", 7 (1956), n. 4, pp. 510-24.

<sup>18</sup> FRAN LUNDER, *Razvoj prebivalstva na mestnih območjih Ljubljane, Maribora, Celja, Kranja, Jesenic in Trbovelj* (The Development of Population in the Urban Areas of Ljubljana, Maribor, Celje, Kranj, Jesenice, and Trbovlje), "PŠ", 5 (1959), n. 1, pp. 1-18.

<sup>19</sup> IGOR VRIŠER, *Razvoj prebivalstva na območju Ljubljane* (The Development of Population in the Ljubljana Area), Knjižnica Kronike, Ljubljana 1956.

<sup>20</sup> PETER CEROVAC, *Porast števila prebivalstva mest v SR Sloveniji od leta 1869 do leta 1966* (The Increase in the Number of Inhabitants of Cities in the SR Slovenia, 1869-1966), "PŠ", 12 (1966), n. 11-12, pp. 1-21.

decades of the nineteenth century. Various quantitative and qualitative aspects of emigration have been treated by Šifrer<sup>21</sup> and by Umek.<sup>22</sup>

As regards the entrepreneurial segment of the population, it should be observed that while some of the early entrepreneurs came from Western Europe, notably from the British Isles, the number of local entrepreneurs was appreciable as a result of Slovene experience in proto-industrialization: during the eighteenth and the first half of the nineteenth century rural industry experienced considerable growth, much of it under the putting-out system; moreover, Ljubljana evolved into a fairly important centre for wholesale trade in agricultural products. Thus, a number of early entrepreneurs came from a background of traditional rural industries and wholesale trade, as has been born out in studies by Šorn<sup>23</sup> and Schneider.<sup>24</sup> Šorn found that local entrepreneurs were generally imbued with liberal ideas and acted as articulate supporters of *laissez-faire* policy. In another paper Šorn<sup>25</sup> investigated the activity of local inventors during the pre-1848 period on the basis of registered inventions in each industry.

If there was a human resource bottleneck which in Slovenia stood in the way of industrial expansion well into the nineteenth century, it was the inadequate supply of skilled labour due to lagging primary education. One may recall that Landes<sup>26</sup> linked the rapid industrial progress in nineteenth-century Germany to the promotion of a universal system of education. The lack of widely available education may very well have dampened the progress of industrialization in Slovenia. As early as 1838 Ivan Mühleisen, a member of the Carniolan Trade Commission, observed that iron and steel plants in the Upper Sava Valley were constrained to import skilled labour because of a lack of schooled local population. He proposed an extension of the educational

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<sup>21</sup> ŽIVKO ŠIFRER, *Izseljevanje s slovenskega ozemlja* (Emigration from the Slovene Territory), "PŠ", 8 (1962), n. 2, pp. 1-24.

<sup>22</sup> EMA UMEK, *Izseljevanje v Brazilijo v zadnjih letih 19. stoletja* (Emigration to Brazil during the Last Years of the 19th C.), in "Slovenski izseljenski koledar 1969", (Ljubljana), pp. 218-20; *Prispevki k zgodovini izseljevanja iz Kranjske v Ameriko v letih 1810-1913* (Contributions to the History of Emigration from Carniola to America during 1910-1913), in "Slovenski izseljenski koledar 1967", pp. 199-207.

<sup>23</sup> JOŽE ŠORN, *Obdobje grosističnih tvrdk 1820-1870* (The Period of Wholesale Firms, 1820-1870), "Kronika", 12 (1964), n. 1, pp. 17-37.

<sup>24</sup> SIBYLLE SCHNEIDER, *Unternehmertum im Gebiet des heutigen Jugoslawien im Zeitraum 1800-1850*, in "Ethnogenese und Staatsbildung in Südosteuropa", Vanderhoeck & Ruprecht, Göttingen 1974, pp. 93-103.

<sup>25</sup> JOŽE ŠORN, *Izumiteljstvo na slovenskem narodnostnem ozemlju v predmarčni dobi* (inventors in the Slovene Ethnic Territory during the Pre-March Period), "ZČ", 19-20 (1965-66), pp. 255-62.

<sup>26</sup> DAVID S. LANDES, *The Unbound Prometheus*, Cambridge University Press, Cambridge 1969, esp. pp. 326-28.

system, adding that it could not develop with reliance on German as the instructional language, since even in Ljubljana the German language was not generally understood.<sup>27</sup>

While the development of the educational system in Slovenia has been the object of considerable research,<sup>28</sup> its linkages to early industrial development have yet to be explored. It would be challenging indeed for a counterfactual economic historian to work, for example, around a figment of pre-March educational level in Slovenia equivalent to that in German-speaking Austria.

The second part of the nineteenth century saw a rapid closing of the educational gap, concomitant with Slovenization of schools and other public institutions, especially in Carniola. The resulting links to the development of the nonagricultural sector have been explored in an analytical model by this author.<sup>29</sup> He considered financial capital, material resources, capital-embodied technology and key managerial personnel as mobile within the Habsburg Empire of the post-1848 period. On the other hand, skilled labour and middle-level technical personnel were considered as largely immobile across the boundary of the Slovene linguistic region. Under these conditions the quality of human resources functioned as the only regional determinant of output growth. Any improvement in the quality of human resources was in turn closely dependent upon Slovenization of schools and other public institutions instrumental in modernization. The linkage between Slovenization and economic growth was established empirically by constructing first an indicator of institutional penetration of Slovene, expressed as the ratio of Slovene-speaking labourers Slovene-speaking white collar employees, where penetration was posited as increasing inversely with the value of this ratio. As expected, the ratio was found to be negatively related to the growth proxy, namely, the increase in the share of non-agricultural population. The comparison was possible because the progress of Slovenization varied between provinces, but not other underlying institutional conditions. In another empirical study the same author<sup>30</sup> showed that cross-regional mobility of intellectual capital was less during the industrial than during the pre-industrial period, which seemed to confirm the critical dependence of modernization on internal human resources.

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<sup>27</sup> As quoted in ŠORN, *Obdobje...*, p. 27.

<sup>28</sup> Esp. VLADO SCHMIDT, *Zgodovina šolstva in pedagogike na Slovenskem* (History of Educational Institutions and Pedagogy in Slovenia), Državna založba Slovenije, Ljubljana 1963-66.

<sup>29</sup> HOČEVAR, *The Structure...*, pp. 93-113.

<sup>30</sup> TOUSSAINT HOČEVAR, *Mednarodna mobilnost človeškega kapitala v tradicionalnem in razvijajočem se gospodarstvu: Slovenski primer – Mobilità internazionale del capitale umano in economie tradizionali ed economie in sviluppo: Il caso della Slovenia*, "Most", 1970, n. 31-32, pp. 2-7.

*The Agrarian History*

The agrarian reforms initiated by Maria Theresa and Joseph II culminated in the abolition of feudal land tenure in 1848. Legal aspects of the reforms with special reference to Slovenia, have been treated by Vilfan.<sup>31</sup> A more comprehensive historical coverage limited, however, to Carniola has been provided by Britovšek.<sup>32</sup>

The agrarian reform contributed to the growing role of money in the agrarian sector. Coupled with the revolution in transportation, this led to significant changes in land use. Notable contributions in the research of historical changes in land use have been made by geographers. Small areas in the Karst region of western Slovenia have been the object of land-use studies by Alexander<sup>33</sup> and Moritsch.<sup>34</sup> Researchers based at the University of Maribor focussed on changes in land use in selected regions of eastern Slovenia: Medved<sup>35</sup> and Zgonik<sup>36</sup> investigated the mountainous Pohorje area; the problems of farms in mountainous locations of the Meža Valley have been treated by Medved;<sup>37</sup> and the winegrowing country east of Maribor has been researched by Belec<sup>38</sup> and Bračič.<sup>39</sup> In addition to information on land use, these studies typically analyze changes in the size of holdings and changes

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<sup>31</sup> SERGIJ VILFAN, *Pravna zgodovina Slovencev* (Legal History of the Slovenes), Slovenska Matica, Ljubljana 1961; *Agrarsozialpolitik von Maria Theresia bis Kudlich*, in "Der Bauer Mittel- und Osteuropas im sozio-ökonomischen Wandel des 18. und 19. Jahrhunderts", edited by Heinz Ischreyt, Bohlau, Cologne-Vienna, 1973.

<sup>32</sup> MARIJAN BRITOVŠEK, *Razkroj fevdalne agrarne strukture na Kranjskem* (Disintegration of the Feudal Agrarian Structure in Carniola), Slovenska Matica, Ljubljana 1964.

<sup>33</sup> PAUL B. ALEXANDER, *Land Utilization in the Karst Region of Zgornja Pivka, Slovenia*, Studia Slovenica VI, Studia Slovenica, New York 1967.

<sup>34</sup> ANDREAS MORITSCH, *Das nahe Triester Hinterland. Zur wirtschaftlichen und sozialen Entwicklung vom Beginn des 19. Jahrhunderts bis zur Gegenwart*, Wiener Archiv für Geschichte des Slawentums und Osteuropa, Hermann Böhlhaus Nachf., Vienna 1969.

<sup>35</sup> JAKOB MEDVED, *Tipi in smeri spreminjanja izrabe zemljišta v Pohorskem Podravju* (Types and Directions of Change in Land Use in Pohorsko Podravje), "Časopis za zgodovino in narodopisje" (hereafter "ČZN"), 6 (1970), n. 1, pp. 144-53.

<sup>36</sup> MAVRICIJ ZGONIK, *Delež falske graščinske posesti pri razvoju gospodarstva in preoblikovanju pokrajine na Lovrenškem in Ruškem Pohorju v 19. stoletju* (The Role of Fala Manorial Property, in Economic Development and Landscape Changes in the Lovrenc and Ruše Pohorje during the 19th C.), "ČZN", 1 (1965), pp. 139-53.

<sup>37</sup> JAKOB MEDVED, *Stopnje in vrste propadanja gorskih kmetij v Mežiški dolini* (Phases and Types of Degradation of Mountain Farms in the Meža Valley), "ČZN", 1 (1965), pp. 139-53.

<sup>38</sup> BORUT BELEC, *Ljutomersko-ormoške gorice. Agrarna geografija* (The Ljutomer-Ormož Wine Country. Agrarian Geography), Obzorja, Maribor 1968.

<sup>39</sup> VLADIMIR BRAČIČ, *Vinorodne Haloze* (Winegrowing Haloze), Obzorja, Maribor 1967.

in the type of ownership, such as ownership by local farmers or outside residents. Special treatment of ownership of forests by urban dwellers is found in papers by Valenčič<sup>40</sup> and Leskovec.<sup>41</sup>

Ljubljana geographers, too, have produced micro-regional monographs containing valuable information on agrarian history. Here we are citing Klemenčič,<sup>42</sup> whose work on the economic geography of the Snežnik-Slavinik area includes a thorough treatment of transhumance in the coastal region.

Žumer's comprehensive study of the share of forests in the total land area has been referred to in the Introduction. He found that the forest expanded continuously during the last one hundred years at the expense of agricultural land. His data would gain added significance if in time they became buttressed by similar data on changes in the relative importance of various categories of agricultural land.

Changes in agrarian technology have been systematically covered in the aforementioned first volume of *Gospodarska in družbena zgodovina Slovencev*. It also contains information on rural life style along with references to literature. In connection with economic anthropology and rural life style in particular, we are noting the study of a typical Slovene village by Winner<sup>43</sup> and publications by A. Baš<sup>44</sup> on living conditions and nutrition of forest workers in the Pohorje area during the nineteenth century.

#### *History of Transportation and Communications*

The revolution in transportation ushered in by the railroads began to be felt in Slovenia around the middle of the nineteenth century. The Vienna-Trieste railroad, which traversed Slovenia from the Northeast to the Southwest, reached Ljubljana in 1849. During the following decades the Northwest-Southeast trunk line and a fairly dense network of local feeder lines were added.

The history of the railroads in Slovenia has been covered in an extensive

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<sup>40</sup> VLADO VALENČIČ, *Bistriški gozd in kamniški meščani* (The Bistrica Forest and the Burghers of Kamnik), "Kamniški zbornik", 3 (1957), pp. 69-103.

<sup>41</sup> ANTOŠA LESKOVEC, *Pohorski gozd mariborske meščanske srenje* (Pohorje Forests of the Maribor Burghers), "ČZN", 3 (1967), pp. 75-83.

<sup>42</sup> VLADIMIR KLEMENČIČ, *Pokrajina med Snežnikom in Slavnikom* (The Region between Snežnik and Slavinik), Slovenska akademija znanosti in umetnosti, Ljubljana 1959.

<sup>43</sup> IRENE PORTIS WINNER, *A Slovenian Village: Zerovnica*, Brown University Press, Providence, R.I. 1971.

<sup>44</sup> ANGELOS BAŠ, *Gozdni in žagarski delavci na južnem Pohorju v dobi kapitalistične izrabe gozdov* (Forest and Sawmill Workers in Southern Pohorje, Maribor 1967; *Prehrana gozdnih in lesnih delavcev na južnem Pohorju* (Nutrition of Forest and Forest Industry Workers in Southern Pohorje), "ČZN", 1 (1965), pp. 176-36.

monograph by Mohorič.<sup>45</sup> In addition, Jenko<sup>46</sup> published a series of articles dealing mainly with local feeder lines.

Maritime transportation has been surveyed by Pahor<sup>47</sup> and postal services in the Coastland by Juriševič.<sup>48</sup>

### *History of Mining and Metallurgy*

The historiography of mining and metallurgy (*montanisticum*) has been treated by Šorn<sup>49</sup> in an essay containing numerous references to primary and secondary sources.

The most important development during the period under consideration was the expansion of coal mining which began towards the middle of the nineteenth century. It was at first financed by Trieste and Ljubljana businessmen, but by 1880 the mines in the main coal mining area, that of Trbovlje, were taken over by French capital. Even though Slovene coals are not of coking quality, the availability of coal helped to attract coal-using industries, including steel plants which used coal in the puddling process.

A comprehensive study of coal mining in Slovenia was undertaken by Šorn,<sup>50</sup> who published the results in two essays, using 1848 as the dividing

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<sup>45</sup> IVAN MOHORIČ, *Zgodovina železnic na Slovenskem* (The History of Railroads in Slovenia), Slovenska Matica, Ljubljana 1968.

<sup>46</sup> JOŽE JENKO, *Vrhniška lokalna železnica* (The Vrhnika Local Railroad), "Kronika", 10 (1961), n. 1, pp. 35-42; *Med Zidanin mostom in Siskom vozijo vlaki že 100 let* (Between Zidani most and Sisak Trains Have Been Operating for 100 years), "Kronika", 10 (1961), n. 2, pp. 94-105; *Ob stoletnici koroške železnice* (On the Occasion of the Carinthian Railroad Centennial), "Kronika", 11 (1963), n. 3, pp. 170-95; *Železnice med Muro in Dravo v 19. in 20. stol.* (Railroads in the Area between Mura and Drava during the 19th and 20th C.), in "Svet med Muro in Dravo", Obzorja, Maribor 1968, pp. 589-629.

<sup>47</sup> MIROSLAV PAHOR, *Sto let slovenskega ladjarstva, 1841-1941*. (One Hundred Years of Slovene Maritime Shipping, 1841-1941), Splošna plovba, Piran 1969.

<sup>48</sup> FRAN JURISVIČ, *Primorska pošta skozi zgodovino* (The Coastland Postal Service through History), Lipa, Koper 1967.

<sup>49</sup> JOŽE ŠORN, *Naše zgodovinske o rudarstvu in fuzinarstvu na Slovenskem* (Our Historiography on Mining and Iron and Steel Making in Slovenia), "ZČ", 25 (1971), n. 3-4, pp. 279-90.

<sup>50</sup> JOŽE ŠORN, *Premogovništvo na slovenskem ozemlju do sredine 19. stoletja* (Coal Mining in Slovenia up to the Middle of the 19th C.), "ZČ", 18 (1964), pp. 7-74, *Premogovniki in njihovi rudarji v obdobju 1848-1918* (Coal Mines and Coal Miners during 1848-1918), "Prispevki za zgodovino delavskega gibanja" (hereafter "PZDG"), 8-9 (1968-69), n. 1-2, pp. 3-102; *Rudarji v naših premogovnikih ob koncu fevdalnega družbenega sistema* (Our Coalminers at the End of the Feudal Social System), "PZDG", 4 (1963), pp. 79-93.

line. The history of coal mining in the Trbovlje Basin is included in two monographs dealing with the Trbovlje area, one by Orožen,<sup>51</sup> and a more recent one by Vrišer.<sup>52</sup> A short history of the Velenje lignite mine is contained in an article by Ficko.<sup>53</sup>

Among nonferrous metals, mercury held the leading position, historically followed by lead. The history of mercury mining has been researched by Mohorič.<sup>54</sup> The same author<sup>55</sup> covered the lead mining in Mežica in his monograph on industrialization in the Meža Valley. A more recent study of mining in the Meža Valley is by Urban.<sup>56</sup> Šancl<sup>57</sup> compiled a bibliography on mining in the same area. Minor lead mines in central Slovenia have been researched by Šorn.<sup>58</sup> Zinc mills which sprung up near coal mines and depended largely on ore from outside sources have been the subject of another article by Šorn.<sup>59</sup>

Ferrous metallurgy was, along with the textile industry, the most important sector in the early industrialization of Slovenia. New technology in ferrous metallurgy came first to Prevalje, where puddling was introduced in 1836. Charcoal, which was at first used in the puddling process, gave place local coal in 1840. Nearby plants in Lipica and Ravne followed suit. The history of these plants has been covered by Mohorič<sup>60</sup> and Kolar,<sup>61</sup> while the history of iron and steel making in Slovene Styria as a whole during the first half

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<sup>51</sup> JANKO OROŽEN, *Zgodovina Trbovelj, Hrastnika in Dola. I. Od početka do 1918* (The History of Trbovlje, Hrastnik, and Dol. Vol. I. From the Beginnings until 1918), Občinski ljudski odbor, Trbovlje 1958.

<sup>52</sup> IGOR VRIŠER, *Rudarska mesta Zagorje, Trbovlje, Hrastnik* (Mining Towns Zagorje, Trbovlje, Hrastnik), Slovenska Matica, Ljubljana 1953.

<sup>53</sup> PETER FICKO, *Rudarsko Velenje do ustanovitve stare Jugoslavije* (The Mining Town Velenje up to the Founding of Old Yugoslavia), "Kronika", 19 (1971), n. 3, pp. 163-68.

<sup>54</sup> IVAN MOHORIČ, *Rudnik živega srebra Idrija* (The Idrija Quicksilver Mine), Mestni muzej v Idriji, Idrija 1960.

<sup>55</sup> IVAN MOHORIČ, *Industrializacija Mežiške doline* (Industrialization of the Meža Valley), Obzorja, Maribor 1954, esp. pp. 130-209.

<sup>56</sup> STANKO URBAN, *Rudarstvo Mežiške doline* (Mining in the Meža Valley), in "Med Peco in Pohorjem. Zgodovinski pregled", Obzorja, Maribor 1965.

<sup>57</sup> STANKO ŠANCL, *Bibliografija o mežiških rudnikih* (Bibliography of Meža Mines), in "(Tristo) 300 let mežiških inženirjev in tehnikov", Meža 1965.

<sup>58</sup> JOŽE ŠORN, *Proizvodnja svinca v osrednji Sloveniji med leti 1840 in 1918* (Production of Lead in Central Slovenia between 1840 and 1918), "ZČ", 26 (1972), n. 3-4, pp. 349-66.

<sup>59</sup> JOŽE ŠORN, *Cinkarne v Zagorju, Šentjanžu in Celju* (Zinc Mills in Zagorje, Šentjanž, and Celje), "Kronika", 18 (1970), n. 3, pp. 129-34.

<sup>60</sup> MOHORIČ, *Industrializacija...*, esp. pp. 13-29 and 71-129.

<sup>61</sup> MARIJAN KOLAR, *Železarstvo v treh dolinah. Zgodovinski pregled* (Iron Making in the Three Valleys: A Historical Survey), in "Med Peco in Pohorjem", Obzorja, Maribor 1965, pp. 87-111.

of the nineteenth century has been the subject of an article by Šorn.<sup>62</sup> Insights into working conditions are provided in oral histories of Prevalje and Ravne workers by Jasser.<sup>63</sup>

With the opening of the Upper Carniolan railroad in 1870, the time became ripe for bringing several scattered traditional iron and steel making plants in the Upper Sava Valley under the management of the newly formed Carniolan Industrial Corporation, which pioneered the production of ferromanganese in blast furnaces. By 1891, with assistance from Berlin capital, all operations were concentrated in an integrated steel mill which had been built at Jesenice. Because of the exhaustion of local ore reserves, production of pig iron was transferred, in 1897, to the coast near Trieste, where imported ore could be used.

The early corporate history of the Carniolan Industrial Corporation has been covered by Mohorič,<sup>64</sup> and also the history of iron and steel making in Upper Carniola in general.<sup>65</sup>

### *Manufacturing*

The decades which followed the Napoleonic era brought prosperity to Slovenia because of its opportune location relative to maritime traffic. The expansion in manufacturing was twofold. On the one hand, traditional industries experienced a final wave of prosperity before their decline caused by technological changes which enveloped the country during the second half of the nineteenth century. On the other hand, several mechanized plants were introduced into the area, notably in the cotton industry.

Traditional industries have been covered by various authors whose studies reach back into the period of proto-industrial development. In addition to the manufacturing of iron and steel products, covered in studies referred to under ferrous metallurgy, these studies include cottage-type production of

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<sup>62</sup> JOŽE ŠORN, *Vzpon in zaton spodnještajerskega fužinarstva* (The Rise and Decline of Traditional Iron and Steel Making in Lower Styria), "Kronika", 10 (1962), n. 3, pp. 144-56.

<sup>63</sup> RUDOLF JASSER, *Pred sedemdesetimi leti - spomini na stare prevaljske in ravenske fužinarje* (Seventy Years Ago - Reminiscences about Old Prevalje and Ravne Forge Workers), "Koroški fužinar", 13 (1963), n. 4-5, p. 19.

<sup>64</sup> IVAN MOHORIČ, *Nastanek Kranjske industrijske družbe* (The Genesis of the Carniolan Industrial Corporation), "Jeklo in ljudje - Jeseniški zbornik", 2 (1969), pp. 34-46.

<sup>65</sup> IVAN MOHORIČ, *Dva tisoč let železarstva na Gorenjskem* (Two Thousand Years of Iron Making in Upper Carniola), 2 vols., Mladinska knjiga, Ljubljana 1969 and 1970, 434 and 537 pp.

silk,<sup>66</sup> linen,<sup>67</sup> and sieves.<sup>68</sup> Traditional-type manufacturing in Ljubljana has been treated by Valenčič.<sup>69</sup>

The earliest mechanized manufacturing plants in Slovenia appeared in the textile industry. Their introduction in the wake of the lifting of the Continental Blockade was linked to the proximity of Trieste, an important entrepôt for Egyptian cotton. In the first cotton spinnery, which started operating in 1828, water was used to power the machines until the installation of a steam engine in 1843.<sup>70</sup> The largest integrated cotton spinning and weaving plant in the area was put into operation in Ljubljana, in 1837, by William Moline, who immigrated from Britain. The history of this plant has been the subject of an article by Slokar,<sup>71</sup> who brought to light the heavy reliance on child labour and described the despicable conditions under which children worked, drawing upon regulations pertaining to child labour. More recently the history of textile industry has been the object of systematic research by Kresal<sup>72</sup> and Kobe-Arzenšek.<sup>73</sup>

Another industry dependent on imported raw materials was cane-sugar refining which thrived in Ljubljana between the 1830's and 1870's, after which time cane-sugar was replaced by beet-sugar from refineries in the Czech lands. The history of the sugar industry in Slovenia has been described by Valenčič.<sup>74</sup>

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<sup>66</sup> JOSIP ŽONTAR, *Svilogojstvo in svilarstvo na Slovenskem od 16. do 20. stoletja* (Sericulture and Silk Making in Slovenia from the XVIth to the XXth C.), Slovenska akademija znanosti in umetnosti, Ljubljana 1957.

<sup>67</sup> JOSIP ŽONTAR, *Platnarstvo in sitarstvo v loškem gospostvu v 18. stoletju* (Linen and Sieve Making in the Seigniorship of Loka during the XVIIIth C.), "Loški razgledi", 3 (1959).

<sup>68</sup> KATARINA KOBE-ARZENŠEK, *Sitarstvo na Gorenjskem* (Sieve Making in Upper Carniola), Tehniški muzej Slovenije, Ljubljana 1967.

<sup>69</sup> VLADO VALENČIČ, *Ljubljanska industrija od 16. stoletja do prve svetovne vojne* (Industry of Ljubljana from the XVIth C. up to World War I), in "Starejša ljubljanska industrija", Zgodovinski arhiv Ljubljana, Ljubljana 1973.

<sup>70</sup> MARIJAN DROBEŽ, *(Deset) 10 let tekstilne tovarne v Ajdovščini* (Ten Years of the Textile Factory in Ajdovščina), Sindikalna podružnica TT Ajdovščina, Ajdovščina 1959.

<sup>71</sup> IVAN SLOKAR, *Bombažna industrija v Ljubljani do leta 1860* (Cotton Industry in Ljubljana up to 1860), "Kronika", 20 (1972), n. 1, pp. 13-16.

<sup>72</sup> FRANCE KRESAL, *Die Rolle und Bedeutung der Textilindustrie in der Industrialisierung des slowenischen Gebietes im 19. Jahrhundert*, in "Beiträge zur Geschichte der Industrialisierung des Südostalpenraumes im 19. Jahrhundert", Forschungen zur geschichtlichen Landeskunde der Steiermark 24, Historische Landeskommission für Steiermark, Graz 1970; also, *Ekspanzija Mautnerjevega tekstilnega koncerna na Slovensko* (Expansion of Mautner's Textile Concern to Slovenia), "ZČ", 19-20 (1965-66), pp. 355-63.

<sup>73</sup> KATARINA KOBE-ARZENŠEK, *Prvi tekstilni industrijski obrati na Slovenskem* (The First Industrial Textile Mills in Slovenia), Publikacije Tehniškega muzeja Slovenije 14, Ljubljana 1968.

<sup>74</sup> VLADO VALENČIČ, *Sladkorna industrija v Ljubljani do leta 1860* (Sugar Industry in Ljubljana until 1860), Knjižnica Kronike 3, Ljubljana 1957.

Among local industrial resources in Slovenia, forests occupied historically a central position. However, during the period under consideration, forests ceased to be an economical source of charcoal for such industries as steel and glass making. As a result the comparative advantage in the operation of these industries shifted from Alpine lands to Silesia and Bohemia, where good fossil coal was easily available.

On the other hand, as a result of improved transportation, wood became in Slovenia the basis for development of a modern paper industry as well as an increasingly important commercial item in various stages of processing. Šorn<sup>75</sup> covered the history of the mechanized paper industry, the basis for which was laid, in 1843, by Fidelis Terpinč, a local entrepreneur. The industry was able to expand with local capital until 1870, when it consolidated with Leykam of Vienna into a new firm, incorporated in Graz.

Statistics on sawmills, wood processing plants, and paper mills for 1885, 1900 and 1910 have been recently collected and published by Žumer.<sup>76</sup>

Other manufacturing industries of some importance were metalworking, chemicals and leather. However, this author is unaware of systematic research focussing on any of these industries.

Water continued to serve as an important source of industrial power well into the nineteenth century, especially in the case of smaller plants. Given the ubiquitous availability of water power in Slovenia, data on steam engines, frequently used as an indicator of industrial mechanization, contain a downward bias when Slovene lands are compared with Lower Austria or Bohemia. Technical aspects of water powered wheels and turbines — the latter incidentally were manufactured in Slovenia — have been treated by Struna.<sup>77</sup>

Before World War I, electric power opened new possibilities for industrial development. However, of the planned chain of public power plants on the Sava River, only one was brought to completion by the Carniolan government before the outbreak of the war. Another, larger electric power plant, located on the Drava River at Fala and financed by Swiss capital, was completed during World War I. Its history and that of the adjoining Ruše carbide plant

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<sup>75</sup> JOŽE ŠORN, *Razvoj papirnice Vevče* (Development of the Vevče), Paper Mill Papirnica Vevče, Ljubljana 1956.

<sup>76</sup> ŽUMER, *Delež gozdov...*

<sup>77</sup> ALBERT STRUNA, *Vodni pogoni na Slovenskem* (Water Powered Plants in Slovenia), Tehniški muzej Slovenije, Ljubljana 1955; also, *Stoletna tradicija naših turbin* (The Centenary Tradition of Our Turbines), in "(Sto) 100 let turbinske tradicije", Titovi zavodi Litostroji, Ljubljana 1957, pp. 4-9.

<sup>78</sup> IVAN MOHORIČ, *Elektrarna Fala Elektro-Maribor mesto. 40 let* (Electric Works Fala Elektro-Maribor mesto. 40 Years), edited by Franc Weissensteiner, Elektrarna Fala and Elektro-Maribor mesto, Fala and Maribor, 1958.

<sup>79</sup> STANISLAV FRAS and KAREL HROVATIN, eds., *Razvoj elektrifikacije Slovenije do leta*

has been dealt with by Mohorič.<sup>78</sup> Recently, a group of authors<sup>79</sup> covered the history of electrification in Slovenia in its entirety.

So far little has been done to develop quantitative data which would allow us to gauge the pace of overall industrial development or allow comparisons with neighbouring regions. The only effort in this direction has been by Pretnar,<sup>80</sup> who compiled data on the number of firms and workers by manufacturing industries, separately for firms classified as industrial and for those classified as crafts, for 1852 and 1912. However, since these data are limited to Carniola and Slovene Styria, they exclude about one fourth of the present political territory of Slovenia.

### *The Financial Sector*

In the economic historiography of Slovenia the financial sector *per se* has been given meagre attention in comparison with the "real" sectors. This may have been dictated less by the researchers themselves than by the fact that during the period under consideration major financial centres lay outside the present Slovene political territory. In research dealing with investment projects in the area, financing has been consequently considered in isolation, that is, without examining the overall financing pattern. There is, however, an important exception to this general observation. Šorn<sup>81</sup> has analysed the pre-1870 financing of new industrial enterprises within an overall framework. He found that during the Metternich era and up to the 1870's, surplus capital of wholesalers served as the primary financial source for investment in industry and mining. Even though both Trieste and Vienna wholesalers extended their capital into Slovenia, Ljubljana wholesalers were not to be outdone and held their own ground. By 1870, however, Austrian and foreign bank capital assumed the leading role in industrial financing. As a result, larger local enterprises gradually fell under the control of Vienna banks.

It has been generally held that the influence of outside capital and its grip on real resources of Slovenia were growing progressively stronger up to World War I. In the words of Šorn, "Slovene capital experienced a growing lag behind the overall development,"<sup>82</sup> a view which fits into the "imperial-colonial" schema recently advanced by Rudolph, for whom the development

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1945 (The Development of the Electrification of Slovenia up to 1945), Tehniška založba Slovenije, Ljubljana 1976.

<sup>80</sup> JOŽE PRETNAR, *Obri na ozemlju Ljudske republike Slovenije* (Handicrafts in the Territory of the People's Republic of Slovenia), "Ekonomska revija", 2 (1951), n. 3-4, pp. 280-84.

<sup>81</sup> ŠORN, *Obdobje...*

<sup>82</sup> JOŽE ŠORN, in his review of Hočevar, *The Structure...*, "ZČ", 22 (1968), n. 1-2, pp. 154.

of the Austro-Hungarian Monarchy, was "that of an industrializing region, the Austrian-Czech complex, which by its political power... its role as a financial centre, and its cartels, was able to develop itself at the expense of the enclave areas."<sup>83</sup> Even though Rudolph fails to define the meaning of "Austrian" in this context, in another place,<sup>84</sup> he puts Slovenia clearly into the "colonial" category.

While such categorisation may be *grosso modo* applicable to the big business sector, the colonial comparison is inapplicable outside the corporate business sphere. In contrast to the experience of overseas colonies, the influence of outside capital in Slovenia failed to result in the emergence of a "dual" economy, since the nineteenth century modernization was not limited to any particular segment of the society, but enveloped the towns and countryside alike. The organization of indigenous financial intermediaries in the form of lending cooperatives and municipal savings banks supports this view. Before the end of the century lending cooperatives penetrated into every corner of Slovenia, helping to mobilize local savings, a task far beyond the capabilities of a few Vienna branch banks located in Ljubljana and Maribor. By 1900 this cooperative capital was important enough to participate along with private local capital and that of the Prague Živnostenská Banka in the formation of the then only commercial and investment bank with its corporate seat in Ljubljana, the Ljubljanska Kreditna Banka. This was a clear challenge to the "imperial" dominance.

It has been more than thirty years since Schauer completed his study of Slovene lending cooperatives,<sup>85</sup> and a history of Ljubljanska Kreditna Banka has yet to be written. In sum, the history of indigenous financial intermediaries in Slovenia remains a virgin territory and one which is among the most challenging and productive areas for the economic historian to explore. Productive, because the modern existence of Slovenia as a successful industrial society in its own right cannot be explained simply by writing a history of colonialism, but rather a history which takes into account the indigenous linguistic, financial, and political assertion vis-à-vis outside domination. It is these phenomena which give the nineteenth-century history of Slovenia its uniqueness.

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<sup>83</sup> RICHARD RUDOLPH, *Banking and Industrialization in Austria-Hungary: The Role of Banks in the Industrialization of the Czech Crownlands, 1873-1914*, Cambridge University Press, Cambridge 1976, p. 10.

<sup>84</sup> *Ibid.*, p. 181.

<sup>85</sup> DOLFE SCHAUER, *Prva doba našega zadružništva. Od nastanka do leta 1895* (The First Period of Our Cooperative System: From Its Inception until 1895), Samozaložba (private printing), Ljubljana 1945.