

Cheap Labour on the Timber Frontier: Migration of Forestry Workers from Austria- Hungary to Southeast Europe, ca. 1880–1914

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Cheap Labour on the Timber Frontier: Migration of Forestry Workers from AustriaHungary to Southeast Europe, ca. 1880–1914 Billigarbeit am Timber Frontier: Migration von Waldarbeitern aus Österreich-Ungarn nach Südosteuropa, ca. 1880–1914

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Abstract: By considering the expansion of the timber trade in southeast Europe as a resource frontier, this article explores the relationships between the transformation of the technical and material conditions of forest exploitation and the development of its labour force. Previous studies have identified the period from about 1880 to 1914 as the last phase of the European timber frontier, with new areas of virgin forest being integrated into the European market. During this period, the arrival of foreign industrialists led to a radical transformation of working conditions, both in terms of quantity and quality. A study of the migration process shows that workers from Austria-Hungary provided a reservoir of labour. A thorough analysis of working and living conditions also helps to understand how migrant labour was necessary to keep costs low enough to maintain the profits of large timber companies. Finally, this study contributes to our knowledge of labour issues in the context of the expanding resource frontiers of the late nineteenth century.

JEL-Codes: F 16, F 18, F 22, F 64, F 66, J 23, J 31, J 40, J 61, L 73, N 53, R 23, Q 23

Keywords: Timber trade, Labour migration, Resource frontiers, Austria-Hungary, Southeast Europe, Holzhandel, Arbeitsmigration, Ressourcengrenzen, Österreich-Ungarn, Südosteuropa

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1 Introduction

Previous studies have identified the period from around 1880 to 1914 as the last phase of the European timber frontier, with new areas of virgin forest in northern, eastern and southeast Europe constantly being integrated into the European timber market.¹ This frontier transformed landscapes and lives in different ways, due to the specific needs of private enterprises, coupled with local climatic and environmental conditions and sociopolitical contexts. The last phase of the timber frontier was accompanied by major waves of migration. In the timber sector, the pattern of mobility was driven not only by imbalances in labour supply and demand, but also by the materiality of the resource, which was very different from agricultural crops. Given that trees grow very slowly, it takes many decades for them to reach the age and size needed to be harvested and processed. Wherever timber has been harvested unsustainably (i.e., in excess of the forest's capacity to regenerate), there has been a decline in activity, particularly in regions where the effects of population growth and resource depletion came together.² As stocks of a particular species or types of timber were depleted in one region, industrialists had to move to new locations, pushing the timber frontier further.3 Many workers followed them, often initially on a seasonal basis, then sometimes permanently.

From a geographical perspective, this pattern of migration was quite different from the general trend in Europe, where most labour migration was from east to west. In the case of the timber sector, the main dynamic of exploitation was in the

¹ *J. Björklund*, Exploiting the Last Phase of the North European Timber Frontier for the International Market 1890–1914. An Economic-Historical Approach, in: *M. Agnoletti/S. Anderson (Eds.)*, Forest History. International Studies on Socio-Economic and Forest Ecosystem Change, Wallingford 2000, pp. 171-184; *C. Lotz*, Opening up Untouched Woodlands. Forestry Experts Reflecting on and Driving the Timber Frontier in Northern Europe, 1880–1914, in: *G. Winder/A. Dix (Eds.)*, Trading Environments. Frontiers, Commercial Knowledge and Environmental Transformation, 1750–1990, New York 2016, pp. 69-82.

² See for instance *L. Östlund*, Logging the Virgin Forest. Northern Sweden in the Early-Nineteenth Century, in: Forest and Conservation History 39/4, 1995, pp. 160-171; *M. Williams*, Deforesting the Earth. From Prehistory to Global Crisis, Chicago 2003; *J. Moore*, Dutch Capitalism and Europe's Great Frontier, in: *R. Lee/I. Wallerstein (Eds.)*, The Longue Durée and World-Systems Analysis, New York 2012, pp. 65-96.

³ Of course, the phenomenon could also affect the agricultural sector through the process of soil degradation, but certainly not to the same extent as forestry, at least if we look at Europe. For a survey of these issues, see *S. Beckert/U. Bosma/M. Schneider/E. Vanhaute*, Commodity Frontiers and the Transformation of the Global Countryside. A Research Agenda, in: Journal of Global History 16/3, 2021, pp. 435-450.

opposite direction, i.e. towards the east, where vast areas of old-growth forests were still awaiting large-scale exploitation.⁴ There were three main migration corridors: the first, in northern Europe, was mainly characterised by migration from Norway (independent from Sweden in 1905) to northern Sweden and northern Russia (including Finland, then part of the Russian Empire); the second corridor involved parts of present-day Poland, Austria-Hungary and Germany, from where workers were drawn east to the forests of western Russia, mainly in present-day Belarus, Lithuania and northwestern Ukraine; and the third migration corridor connected Austria-Hungary and northern Italy with the southeastern Balkan peninsula, in particular to two former Ottoman territories: Bosnia (occupied by Austria-Hungary from 1878, then annexed in 1908) and Romania (recognized as an independent state in 1878 and raised to the status of a kingdom in 1881). While there is already some, but still limited research done on the northern corridor,5 the eastern and south-eastern migration corridors remain largely understudied, despite a resurgence of interest in the history of European west-east migration. ⁶ Due to space limitations and difficulties in accessing sources that are widely dispersed and cover a large number of languages, I have decided to focus here only on the third corridor.

This article explores the influence of the migration of forestry workers to southeast Europe on the region's emerging timber industry; it inquiries about the origins, motives and working conditions of workers, who sought employment abroad; it analyses why industrialists hired foreigners for higher wages and investigates the means by which employers tried to minimise costs, as well as the workers' responses to these efforts. Sources show that most timber companies in the region recruited foreign labour (particularly from Austria-Hungary), at least in the early years of activity. Yet, there was a fine balance between the companies'

⁴ A. Schwappach, Forstpolitik, Jagd- und Fischereipolitik, Leipzig 1894, p. 6.

⁵ H. Snellman, Migrants Living off the Forests, in: Z. Szarvas (Ed.), Interacting Communities. Studies on some Aspects of Migration and Urban Ethnology. The Fourth Finnish-Hungarian Symposium on Ethnology. Veszprém-Budapest, August 24-31, 1992, Budapest 1993, pp. 153-167; I. Roddvik/B. Leick/V. Roddvik, Norwegian Entrepreneurs (1880s-1930s) and their "New America". A Historical Perspective on Transnational Entrepreneurship and Ecosystem Development in the Russian Arctic, in: Journal of Management History 28/4, 2022, pp. 530-552.

⁶ M. Fuhrmann, Go East. Deutsche und österreichische Arbeiter in der Türkei und auf dem Balkan vor 100 Jahren, in: A. Neuwirth/G. Stock (Eds.), Europa im Nahen Osten - Der Nahe Osten in Europa, Berlin 2010, pp. 299-314; A. Steidl, On Many Routes. Internal, European, and Transatlantic Migration in the Late Habsburg Empire, West Lafayette 2021; P. Guzowski, Eastward Migration in European History. The Interplay of Economic and Environmental Opportunities, in: A. Izdebski/J. Haldon/P. Filipkowski (Eds.), Perspectives on Public Policy in Societal-Environmental Crises, Cham 2022, pp. 325-332.

desire to use this workforce, which largely met their expectations in terms of qualification, equipment and organisation, and their desire to make profits. Scholarship on global capitalist expansion has shown how migration to resource frontiers has been an important challenge for profitability. Along with the ability to profitably make use of natural processes (in the case of forestry, the annual growth of trees), the use of cheap labour has been another essential factor for capitalist success. The problem is that labour on resource frontiers is not typically cheap, mainly because of the high cost of transporting and sustaining workers in an environment that is still difficult to access. Since only the wealthy tend to migrate voluntarily, entrepreneurs have often relied on enslavement, debt bondage or government policies to supply frontiers with cheap labour. They have also applied other devious means to keep labour costs down once workers arrived on the ground, for instance through exploitative working and living conditions.⁸

The hypothesis of this article is that the growing presence of Austro-Hungarian forest workers in southeast Europe from the 1880s onwards was driven by one main economic objective of the large timber companies, who wanted to obtain what they considered to be the most skilled workers at the lowest cost. While labour was not cheap on resource frontiers in general, it was even less so in forestry, which required accumulated experience and skills that tended to be rarer than in agriculture (where harvesting was technically simpler and already partly mechanised) and to some extent also in manufacturing (where the division of labour made it possible to employ a low-skilled proletariat). Forest workers were usually more difficult to find or replace, because of their special knowledge of logging, woodworking and transport techniques, some of which were only used in specific circumstances and environments (e.g. timber rafting on mountain streams, log transport by cableways, etc.).

This article draws on existing literature and a number of primary sources such as the daily and specialised press, national censuses, consular reports and the archives of the Austro-Hungarian Ministry of Foreign Affairs in Vienna. Although there are no exhaustive series of data on the number of migrant workers and their wages, due to the limited sources left by the companies themselves, some data can be found, and, above all, numerous qualitative accounts give an idea of the circumstances in which the migration process took place. After ex-

⁷ *J. Moore*, Capitalism in the Web of Life. Ecology and the Accumulation of Capital, New York 2015. **8** *P. Ciccantell/P. Gellert*, Migration, Resource Frontiers, and Extractive Peripheries. Toward a Typology, in: *D. O'Hearn/P. Ciccantell (Eds.)*, Migration, Racism and Labor Exploitation in the World-System, New York 2021, pp. 29-44.

amining what the opening of new logging frontiers in southeastern Europe meant in terms of labour needs, this article analyses the profile and estimated numbers of foreign workers attracted to the region. The third part returns to the question of the ways in which labour costs were kept down by foreign companies active in the region and how effective their policies were. In the conclusion, I present a summary of our knowledge of labour issues in the context of the expanding timber frontiers of the late nineteenth century and draw some comparisons with other areas, particularly North America, where the historiography of transnational migration of forest workers is more advanced.9 I also outline some prospects for further research.

2 Labour for the Timber Frontier: Forest Exploitation in the Age of Steam and Transnational Capital

At the end of the nineteenth century, western and central European timber industrialists became increasingly interested in the forests of southeast Europe. These were rich in both hardwoods (oak, beech) and softwoods (pine, fir, spruce), and they were not only denser but also older than elsewhere in Europe, making it possible to exploit huge quantities of very large trees.¹⁰ Although some wealthy landowners, local entrepreneurs and even peasant cooperatives contributed to the growth of the timber trade in the region, the export sector became increasingly dominated by large foreign companies, which were organisationally and financially best placed to manage the exploitation in a profitable manner. Most forest owners, including the state, preferred to deal with industrialists who had the necessary capital, expertise and market connections to use their forests profitably. Foreign companies entered long-term contracts that allowed them to harvest large quantities of timber, usually at prices well below the potential commercial value of the timber. They negotiated very favourable conditions, which they justified by the major investments they had to make to access and

⁹ J. Lamarre, French Canadians of Michigan. Their Contribution to the Development of the Saginaw Valley and the Keweenaw Peninsula, 1840-1914, Detroit 2003; S. Chung, Chinese in the Woods. Logging and Lumbering in the American West, Urbana 2015; J. Newton, "These French Canadian of the Woods are Half-Wild Folk". Wilderness, Whiteness, and Work in North America, 1840–1955, in: Labour 77, 2016, pp. 121-150; J. Newton, Cutover Capitalism. Connecting Labor and Nature in Forest Extraction, in: Environmental History 28/4, 2023, pp. 656-667.

¹⁰ Schwappach, Forstpolitik, p. 6; See also J. Marchet, Holzproduktion und Holzhandel von Europa, Afrika und Nord-Amerika, Vienna 1905.

log these forests. From the 1880s onwards, timber companies raised funds in a number of countries, notably Austria-Hungary, Germany, France, Italy, Great Britain and Belgium. Within a decade or two, they managed to dominate the export market from Romania, Bosnia, Bulgaria and, to a large extent, Russia and the Ottoman Empire. There were several export routes, depending on the destination country.

In Romania, timber was exported either by waterway from the port of Galați on the Danube river near the Black Sea, or by rail via Hungary and Bukovina. The main markets were the Balkans (Bulgaria, Greece), the Middle East (Ottoman Empire, Egypt), Europe (Italy, France, Spain, Britain, Germany) and North Africa (Algeria). Bosnian timber was sent by rail to the Austro-Hungarian market or shipped through the Adriatic ports, mainly to Italy (Sicily, Sardinia), western Europe (France, Spain, Germany, Great Britain) and northern and western Africa (Egypt, Algeria, Tunisia, Senegal). Although there was some expansion of the local wood-based industries, such as furniture manufacture, paper and wood distillation, much of the timber was sent out without any processing other than sawmilling.

In the 1880s and 1890s, several foreign companies expanded their operations in the region, creating complex organisational structures after opening offices in many local areas where new forests could be exploited. Initially, the number of permanent employees recruited from abroad was limited. For the companies, the next step was the construction of sawmills, which allowed for more extensive logging and a greater flow of labour. Though some of the companies were family-owned and financed with their private funds, the most powerful ones were those which could rely on industrial and banking capital, particularly joint-stock companies. An important feature was the transnational nature of their strategies. An example of this is the Austrian company *P. & C. Goetz & Co (Goetz)*, which initially had its head office in Vienna. Founded in 1873 as a limited liability company, the firm exploited forests in Bukovina, Galicia and Transylvania before expanding its operations to the Kingdom of Romania.¹³

¹¹ *D. Turnock*, Forest Exploitation and Its Impact on Transport and Settlement in the Romanian Carpathians, in: Journal of Transport History 12/1, 1991, pp. 37-60; *I. Lučić*, Law of the Forest. Early Legal Governance in Bosnia-Herzegovina during the Inter-Imperial Transition between Ottoman and Austro-Hungarian Rule, 1878–1901, in: Slavic Review 81/3, 2022, pp. 585-608.

¹² *K. u. K. Gemeinsames Finanzministerium*, Bericht über die Verwaltung von Bosnien und der Hercegovina, Vienna 1908, p. 116-117; *Österreichisches Handelsmuseum*, Rumänien. Wirtschaftliche Verhältnisse 1909, Vienna 1910, p. 46.

¹³ *I. Boambă*, Banca Marmorosch Blank & Co. Societate anonimă: 1848–1923, Bucharest 1924, pp. 24, 93.

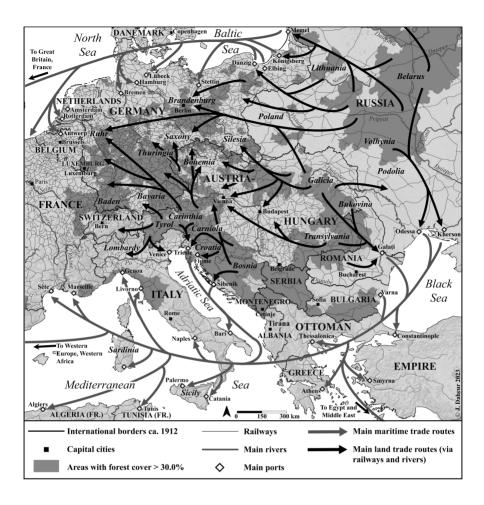


Fig. 1: The structure of timber trade in central and southeast Europe ca. 1900. Source: Map drawn by author. The map shows forest cover at the smallest scale that I could easily find. In some instances, greater precision could certainly be obtained. For some countries (Greece, Serbia), I was only able to find estimates for the whole country. For Montenegro and the Sanjak of Novi Pazar, I assumed that the rate of forest cover was the same as in Serbia. For trade directions, see: *J. Marchet*, Holzproduktion und Holzhandel von Europa, Afrika und Nord-Amerika, vol. 1 & 2, Vienna 1905. For the forest cover rate, see: *T.F.K. Arnold*, Russkij les, Petersburg 1890; *Königlich Preußisches Statistisches Bureau*, Preußische Statistik (Amtliches Quellenwerk), vol. 168. Statistik der Landwirthschaft (land- und forstwirthschaftliche Bodenbenutzung) im preussischen Staate für das Jahr 1900, Berlin 1902; *K.K. Ackerbau-Ministerium*, Statistisches Jahrbuch für das Jahr 1910, vol. 3. Forst- und Jagd-Statistik, Vienna 1913; *M. Endres*, Handbuch der Forstpolitik, mit besonderer Berücksichtigung der Gesetzgebung und Statistik, 2nd edition, Berlin [1905] 1922.

Hungarian companies also played an important role. At the end of the nine-teenth century, a Transylvanian investor, Count Ármin Mikes, teamed up with Romanian and Viennese partners to buy forests and build sawmills on the Romanian side of the Carpathians. These were the foundations of what would become the *Tisiţa* joint-stock company. German, Italian, Belgian and French companies were also present. One example is the Italian company *Feltrinelli*. Founded in Milan in 1854 as a limited liability company, it opened a branch in Carinthia in the early 1870s before moving further east, to Bosnia, then to the Hungarian province of Transylvania (1902) and finally to the Romanian side of the Carpathians (1906).

Another key element in the development of these companies was the rapid expansion of steam-powered technologies, which were instrumental in quickly extracting value from forests. This was achieved through the construction of railways, which industrialists helped to finance and operate, often in partnership with government authorities. In Bosnia, it was the Otto Steinbeis timber company that provided the connection from the Una Valley to the Dalmatian town of Knin, which was already linked to the ports of Sibenik and Split via the public rail network.¹⁶ In the Kingdom of Romania, foreign timber entrepreneurs also contributed to the development of the railway network, above all in the Carpathians.¹⁷ Railways promised to be a panacea for timber transport, as they put an end to the mono-directional traffic tied to hydrological networks used for floating.¹⁸ The railways also made it possible to transport the labour and supplies upstream. Apart from railways, the advent of steam sawmills shifted power generation from water to steam engines. In Romania, it was Goetz, who built the first steam sawmill in Galați in 1872. Steam-powered sawmills were also installed in forest areas and, where necessary, connected to the main network by narrow-

¹⁴ *G. Egry*, "Get Out of Our Forest!" Rural Societies, National Mobilization, State-Building and Modern Forestry in Late-Habsburg and Post-Habsburg Transylvania, in: *J. Daheur/I. Lucic (Eds.)*, Exploiting Nature, Making an Empire. Natural Resource Extraction in the Late Habsburg Empire. New York forthcoming 2024.

¹⁵ *L. Segreto*, The Feltrinellis—Going Global with the Timber Trade. How to Build a Fortune Using a Scarce Resource (1854–1942), in: *C. Lubinski/J. Fear/P. Fernández Pérez (Eds.*), Family Multinationals. Entrepreneurship, Governance, and Pathways to Internationalization, New York 2013, pp. 154-168.

¹⁶ Anon., Die Holzwirtschaft, in: Reichspost 27, February 4 1904, p. 6.

¹⁷ *I. Iliescu*, Cai Ferate Forestiere in Stravechea Tara a Vrancei, in: Cronica Vrancei 13, 2012, pp. 288-309.

¹⁸ *C. Lotz*, Expanding the Space for Future Resource Management. Explorations of the Timber Frontier in Northern Europe and the Rescaling of Sustainability during the Nineteenth Century, in: Environment and History 21, 2015, pp. 257-279.

gauge railways.¹⁹ In Bosnia, it was a Prague-based company, *Johann Brabetz*, which built the country's first steam-powered sawmill in the 1880s after signing a contract with Austria-Hungary's Provincial Government in Sarajevo (*Landesregierung*) to buy 200,000 cubic metres of fir. The mill was located in Podgradci, in the Kozara mountains. The machines were imported from the *Franz Ringhoffer* factory in Prague.²⁰ Further east, the Trieste-based company *Marpurgo & Parente* built the first steam-powered sawmill in the Bosna River valley near Podubravlje in 1897.²¹

The expansion of the timber business led to a radical transformation of working conditions and methods. Of course, some of the dominant working methods continued to be used almost unchanged. For example, the traditional techniques of felling and floating timber, essentially based on human muscle power, continued to play an important role. At the beginning of the 1880s, *Goetz* exploited some 120,000 hectares of forest in the east of the Habsburg Empire and the Kingdom of Romania. While the number of people employed in the company's steam sawmills remained relatively modest – 40 foremen and 150 workers in Galați, 36 foremen and 120 workers in Chernivtsi – the number of people employed in the traditional logging activities was much higher, probably up to 6,000 people in logging and rafting alone.²² In many respects, human power was difficult to replace, which explains why the need for labour grew steadily.

Some products, such as barrel staves, did not fit into the mechanisation process and could only be carved by hand. It is estimated that it took nearly six million working days to produce roughly one million pieces of so-called *French staves* (a product used to make wine barrels that was mainly geared towards the French market) exported from Bosnia between 1880 and 1902.²³

By looking at the quantities of timber processed each year by the new sawmills built during this period, we can see that the demand for labour in the forests was enormous. In 1912, for example, the cumulative volume of roundwood processed in *Goetz's* Romanian sawmills was around 780,000 cubic me-

¹⁹ Turnock, Forest Exploitation, pp. 40-41.

²⁰ K.M., Holzindustrie in Bosnien, in: Österreichische Forst-Zeitung 92, 1884, pp. 270-271.

²¹ *E. Omerović*, Stranci na Krivaji u prvoj polovini XX stoljeća, in: *H. Kamberović* (*Ed.*), Rijeka Krivaja kroz prošlost: zbornik radova, Sarajevo 2016, pp. 127-169, here p. 137.

²² Österreischisch-Ungarischer Verein der Holz-Producenten, Holzhändler und Holz-Industriellen, Special-Katalog der Collectiv-Ausstellung von Producten der Holzzucht und Holz-Industrie, Vienna 1882, p. 21.

²³ *I. Hadžibegović*, Postanak radničke klase u Bosni i Hercegovini i njen razvoj do 1914. Sarajevo 1980, p. 155.

tres.²⁴ Around the same time, 350,000 cubic metres were processed in Zavidovići (by *Eißler & Ortlieb*), some 300,000 in Dobrljin and Drvar (by *Otto Steinbeis*) and 170,000 in Višegrad (by *Gustav Mechtersheimer*).²⁵

Some workers employed by the foreign companies had permanent contracts, especially those who held skilled positions in the sawmills. Others were seasonal, hired when their labour was needed, for relatively long or extremely short periods, depending on the circumstances. Around 1910, the joint-stock company Lotru, whose capital was mainly Hungarian, operated a sawmill in the Lotru Valley in the Romanian Carpathians. With an annual output of about 80,000 cubic metres of timber, it employed 500 full-time workers and 3,000 to 4,000 summer workers on the logging sites. The second-largest sawmill in the region was that of the Arges company in Curtea de Arges, which employed 450 permanent workers and 2,000 to 3,000 seasonal workers.²⁶ The Bosnian case is also well documented, at least for the early 1910s, in terms of the number of workers employed in different sectors. Most of the workforce was employed in logging, followed by sawmills and the company railways. There are no figures for employees in rafting, although this mode of transport remained relatively important on the Sava and Drina rivers.²⁷ For Romania, there is evidence that timber rafting was particularly labour-intensive, as demonstrated by the abovequoted figure about employment at Goetz.

The expansion of the labour force also meant an increase in the need for permanent housing. While some seasonal workers continued to live in improvised short-term accommodations (cabins, huts, tents) in the forest, factory and railway workers, as well as an increasing number of woodcutters, were housed in permanent buildings. This led to a phenomenon typical of resource frontiers, namely the emergence of company towns.²⁸ Here, life was entirely centred on a sawmill, and practically all the housing, shops and other facilities (schools, hospitals, etc.)

²⁴ *Österreichisches Handelsmuseum*, Rumänien. Wirtschaftliche Verhältnisse 1912, Vienna 1913, p. 44.

²⁵ *Anon.*, Ein wirtschaftlicher Führer durch Bosnien und die Herzegowina, in: Fremden-Blatt 271, October 3 1913, pp. 26-28, here p. 28.

²⁶ *Österreichisches Handelsmuseum*, Rumänien. Wirtschaftliche Verhältnisse 1911, Vienna 1912, p. 33. See also: Report of the Imperial and Royal Vice-Consul in Craiova on Seasonal Workers, February 26 1914, in: Österreichisches Staatsarchiv/Haus-, Hof- und Staatsarchiv [hereafter: OeStA/HHStA], Ministerium des Äußern AR F31-48-1.

²⁷ *I. Juvan*, Plavljenje lesa in splavarjenje po Dravi, Savinji in Savi, Maribor 1986; *R. Golić*, Zvorničke lađe i splavarenje na Drini, in: Globus 41, 2010, pp. 81-98.

²⁸ *O. Dinius/A. Vergara (Eds.)*, Company Towns in the Americas. Landscape, Power, and Working-Class Communities, Athens 2011.

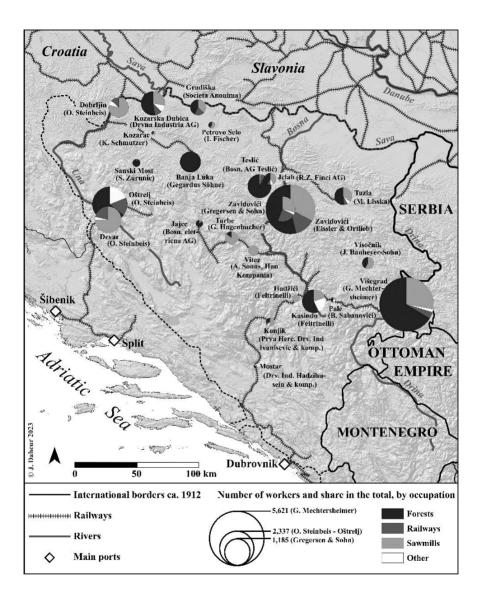


Fig. 2: Type of workforce in the forest industry in Bosnia (1911). Source: Map drawn by author based on own calculations following *Hadžibegović*, Postanak radničke klase, pp. 172-173.

were owned by the one company which was also the main employer. One example is Nehoiu, in Buzău County in Romania, founded in 1906 by *Goetz* around a huge sawmill with 25 saws.²⁹ According to the Austro-Hungarian Vice-Consulate in Ploiești, this originally small settlement quickly grew into "a whole small, charming town".³⁰ In 1913, the number of people in Nehoiu reached 3,000.³¹ For Bosnia, the best-documented case is that of Zavidovići, at the confluence of the Bosna and Krijava rivers. The town was founded in 1900 on a former swampy meadow, near a hamlet from the Ottoman period.³² Its development was closely linked to the activities of the two timber companies present in the region, *Eißler & Ortlieb* and *Gregersen & Sohn*. In 1901, Zavidovići already had nineteen taverns, four bakeries, three butchers, two breweries, a post office, a school, two hospitals (each built by one of the companies) and even a brothel.³³ The population had grown to 4,000 people, which is impressive considering the low level of urbanisation in Bosnia.³⁴

3 Foreigners in the Forests

The rapidly growing labour requirements on the southeast European timber frontier led to significant migration from areas located further west. Although it is not possible to provide an overall quantitative assessment due to the lack of reliable data, available sources enable us to identify the three main Austro-Hungarian regions which provided forestry workers for Bosnia and Romania: the eastern Alps (particularly Tyrol), the Croatian-Slovenian hinterland and the Ruthenian-populated regions of the northeast of the Empire (see Fig. 3).

²⁹ *Österreichisches Handelsmuseum*, Rumänien. Wirtschaftliche Verhältnisse 1913, Vienna 1915, p. 42.

³⁰ Special Report of the Imperial and Royal Vice-Consulate in Ploiești about Austro-Hungarian Immigrants in the Counties of Prahova and Buzău, March 1914, in: OeStA/HHStA Ministerium des Äußern AR F31-48-1.

³¹ *Österreichisches Handelsmuseum*, Rumänien. Wirtschaftliche Verhältnisse 1913, Vienna 1915, p. 42.

³² Dr. R. P., In einer Bosnischen Industriekolonie I, in: Arbeiter-Zeitung 235, August 26 1906, p. 7.

³³ T.O.C., Aus dem Krivajathale, in: Verkehrs-Zeitung 11, June 5 1901, p. 82.

³⁴ In 1910, there were only five cities in Bosnia with more than 10,000 inhabitants (including Sarajevo, the provincial capital, with more than 50,000) and six cities with between 5,000 and 10,000 inhabitants. See: *I. Hadžibegović*, Bosanskohercegovački gradovi na razmeđu 19. i 20. stoljeća, Sarajevo 2004, p. 36.

The aforementioned regions had a long history of experience in certain forest-related activities. They were home to workers with specialised knowledge and proficient with tools, making them a valuable resource for the timber industry. In late nineteenth-century Bosnia, for example, the production of *French staves* for barrels was largely dependent on foreign labour, as had already been the case in the last decades of Ottoman rule.³⁵ Most of the stave-makers in the country were Croatians and Slovenians. Those who came from the Austrian Adriatic hinterland were usually called *Krainer*, after the German name for the province of Carniola.

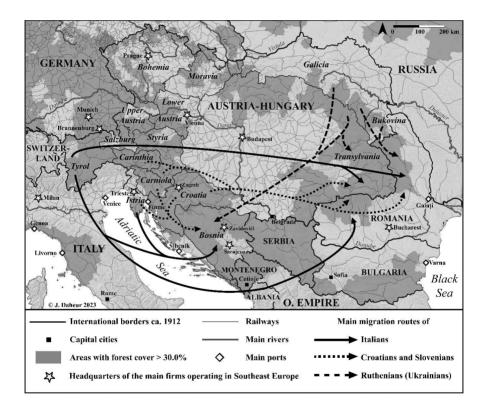


Fig. 3: Migration routes of forestry workers from Austria-Hungary to southeast Europe ca. 1900. Source: Map drawn by author based on a synthesis of information found in all the primary and secondary sources mentioned in this article, including the numerous press articles.

³⁵ B. Begović, Strani kapital u šumskoj privredi BiH za vrijeme otomanske vladavine, Sarajevo 1960.

Krainer were usually organised in teams of eight to ten men headed by a foreman who entered into a legal relationship with the company.³⁶ The working season started in October and ended in April. *Krainer* travelled to Bosnia, Hungary, Romania and European Turkey. A consular report for Romania mentions a Belgian company that produced staves using mainly *Krainer* workers. In 1903, some 950 workers were brought to the Mehedinți County in Western Romania. In that year, the workers managed to produce about six million staves.³⁷ Stavemakers occupied a special place among forest workers, because of their high level of expertise in wood carving. Their workmanship consisted of cutting planks and sticks from tree trunks to the required thickness and length. The reputation of the Carinthian stave-makers was so good, that it was used as a mark of quality, as evidenced by the label *Carinthia superiore*, which was used to brand products in Bosnia.³⁸

While loggers could easily be recruited locally, timber merchants often preferred to use foreign labour. Even though it was usually more expensive, foreign labour offered a certain guarantee of efficiency. Already facing a market full of uncertainty, merchants were unwilling to invest in the time-consuming training of local workers. It was easier to bring in already-trained and already-equipped teams. Woodcutters were brought to Romania from the Austro-Hungarian Empire and Italy partly due to their better tools: the long-tailed axe, the hand saw and the *tapina*, a wooden pole with a metal head used for handling logs.³⁹ Workers skilled with an axe were the most sought-after, as cutting wood with a saw often rendered it permeable to water and thus worthless for various purposes. The ability to work in a team was also highly valued, as it guaranteed efficiency in everyday work. Foreign labour teams tended to be made up of people who had already spent many years working together in the service of the timber compa-

³⁶ Hadžibegović, Postanak radničke klase, pp. 155-156.

³⁷ Berichte der Kaiserliche und Königliche Österreichische-Ungarische Konsularämter über das Jahr 1903, Vienna 1905, vol. 2, A. XIV 1, 2, p. 17.

³⁸ The *Carinthian Forestry Association* protested against this label around 1904–1905, on the grounds that it was an unfair practice. Although the label, used for instance by Eißler & Ortlieb in Zavidovići and Feltrinelli in Kobiljdöl, was not illegal in the strict sense, as it was not a registered trademark, the Association succeeded in banning its use on pain of a fine for the offending industrialists. See XXVII. Jahresversammlung des Krainisch-küstenländischen und XXXIII. des Kärntnerischen Forstvereines in Tarvis am 17. bis 19. September 1904, in: Centralblatt für das gesamte Forstwesen 30/12, 1904, pp. 510-517, here p. 517; Der kärnterische Forstverein, Klagenfurter Zeitung 97, April 28 1905, p. 983.

³⁹ *I. Crețan/I. Nicolau/D. Cusiac*, Putna de altădată. Monografie etnografică și folclorică, Bucharest 2000, p. 31.

nies during the previous phase of the timber frontier's expansion. They were skilled, equipped and familiar with market requirements.

Like the *Krainer*, Italian-speaking woodworkers travelled as members of work units of four to ten men, headed by a foreman. The foremen played an important role not only in organising the day-to-day work of the teams, but also in communicating with the company management, whose language they generally spoke. Conversely, teams without leadership were of little value, as demonstrated by the case of 22 Istrian workers brought to Albania by an Italian company in the autumn of 1908. During the several weeks that they spent on the coast near the port of Durrës, waiting for permission from the Ottoman authorities to start work, several of them contracted malaria. When permission was finally granted, the company was faced with a disorganised team of only nine people, as the rest of the workers, including the foreman, had been repatriated for health reasons. Nevertheless, in terms of individual work capacity, the Italians were often considered "the best, most skilful and industrious workers".

Alpine loggers also had a good reputation. In the 1870s, South Tyrolean workers were recruited by the *Orientalische Eisenbahngesellschaft*, a Viennese railway company operating in Rumelia. They worked in the Rhodope Mountains, in present-day Bulgaria, to meet the company's timber needs.⁴³ In the following decades, Italian-speaking forest workers from both the Austrian part of the Empire (South Tyrol, Istria) and Italy (Friuli) became an important source of labour. They found employment in Germany and throughout the Habsburg lands (Austria, Croatia, Slavonia, Transylvania), as well as in Bosnia and Romania. In 1910, a German forestry magazine praised the Alpine forest workers' skills when using an axe and saw, as well as their experience in the construction of equipment for transporting logs down mountains, such as log flumes and cableways.⁴⁴ Workers from the Carpathians were also appreciated for their woodworking skills, although to a lesser extent. For example, a journal article on Bosnia described Carpathian Ruthenians as having "a certain dexterity and skill" for such work.⁴⁵ Some ethnic teams were also used for floating timber. In Transylvania, for exam-

⁴⁰ A. Müller, Italienische Waldarbeiter, in: Allgemeine Forst- und Jagd-Zeitung 86, 1910, pp. 74-76.

⁴¹ Report by the Consul of Durazzo to the Ministry of Foreign Affairs, January 13 1909, in: OeStA/HHStA Ministerium des Äußern AR F31-48-1.

⁴² *S. Feitler*, Industrie und Handel Bosniens und der Herzegovina, in: *A. Hölder* (*Ed.*), Beiträge zur Wirtschaftskunde Österreichs, Vienna 1911, pp. 227-260, here p. 236.

⁴³ *Anon.*, Wilhelm Freiherr v. Berg, in: Österreichische Forst- und Jagd-Zeitung 28/7, 1910, pp. 55-56, here p. 56.

⁴⁴ Müller, Italienische Waldarbeiter.

⁴⁵ Dr. R. P., In einer Bosnischen Industriekolonie II, Arbeiter-Zeitung 239, August 30 1906, p. 7.

ple, raftsmen from Austria (Salzkammergut, Tyrol) and Germany (Black Forest, Franconia) were involved in timber rafting from the mid-nineteenth century onwards. ⁴⁶ Italians became more prominent for rafting in the 1880s. They are credited for introducing the *tapina* tool, for instance in the Sadu valley. ⁴⁷ They were also familiar with the construction of feeder canals and ponds to help float timber when the water levels were too low. In the Bistriţa valley, it was Italians from Tyrol who first introduced such infrastructure. ⁴⁸

As can be seen from the above examples, Austro-Hungarian workers played a prominent role in the supply of forestry labour to southeast Europe. Bordering Austria-Hungary, the Kingdom of Romania and Bosnia were by far the two main receiving areas. Most workers hired by timber companies appear to have worked on a seasonal basis. This is illustrated, for example, by the statistics on the passage of migrant forest workers registered at the railway station at Chernivtsi in Bukovina, which suggest that workers went to the Kingdom of Romania in small groups of a few dozen during the winter months and returned home in the spring.⁴⁹ A source relating to forestry workers recruited by Eißler & Ortlieb in Bosnia shows a somewhat different pattern of migration, even though it involved the same pool of migrants (that is, Ruthenians living in Galicia, Bukovina and northern Hungary). Given the greater distance to be covered, it was not teams of a few dozen men who left in waves, but larger convoys of 1,000 to 1,400 people, whose journey to Zavidovići took two days by train. 50 Most of these workers stayed in Bosnia for two to three months at a time. They arrived in the spring, usually in April, and returned home in July, staying until harvest time. In September, the company's agents organised a new campaign in the places of origin, during which some new workers were hired and some old ones re-hired. They then travelled to Bosnia for the autumn and usually stayed until the end of De-

⁴⁶ Ausländische Holzflößer, in: Siebenbürgisch-Deutsches Wochenblatt 22, May 31 1871, p. 349; *V. Wollmann*, Plutaşi din Pădurea Neagră (Schiltach) în Transilvania – Schwarzwälder Flößer aus Schiltach in Siebenbürgen, in: Cibinium 10, 2009–2010, pp. 115-130.

⁴⁷ Turnock, Forest Exploitation, p. 39.

⁴⁸ *V. Arvinte*, Elemente retoromane în terminologia forestieră romînească, in: Studii și cercetări lingvistice 15/5, 1964, pp. 643-659, here 644.

⁴⁹ Czernowitzer Allgemeine Zeitung No. 1174, December 8 1907, p. 5; Ibid. No. 1228, February 13 1908, p. 4; Ibid. No. 1260, March 22 1908, p. 6; Ibid. No. 1269, April 3 1908, p. 4; Ibid. No. 1270, April 4 1908, p. 5; Ibid. No. 1279, April 10 1908, p. 4; Ibid. No. 1281, April 16 1908, p. 4; Ibid. No. 1367 August 1 1908, p. 5; Czernowitzer Tagblatt No. 1499, February 8 1908, p. 5; Ibid. No. 1549, April 8 1908, p. 4.

⁵⁰ *Dr. R. P.*, In einer Bosnischen Industriekolonie II.

cember, before heading back home to celebrate the Greek Catholic Christmas.⁵¹ Italians and Slovenians employed by the same company had a different migration practice, as they tended to stay for longer periods, from spring until December.⁵² Such longer stays could often be divided into several short periods of work at different logging sites. A team of workers would be given a specific area to clear and, once the work was complete, would be moved to another location. Given this relatively complex pattern of mobility, the number of foreigners present in a given area could vary greatly depending on the time of year.

Contemporary observers sometimes tried to look for evidence of forest workers in census data. The official results of the 1910 census in Bosnia, for instance, highlighted curiosities in this respect. The relatively high percentages of Hungarians in the counties of Bosanski Petrovac (12.3 percent) and Bosanska Krupa (10.2 percent), and of Austrians and Hungarians in the county of Žepče (6.5 percent and 6.7 percent respectively) were thought to be related to the presence of forest workers. Indeed, these counties included several places where the companies *Otto Steinbeis*, *Eißler & Ortlieb* and *Gregersen & Sohn* were operating sawmills. The census showed that many Greek Catholics lived throughout Bosnia. But in some districts (Sarajevo, Tuzla, Bihać and Travnik) they were almost exclusively men. Since such a profile fitted well with that of the Ruthenian seasonal workers in the timber sector, the authors concluded that these people were probably forest workers. 4

On the other hand, we also have, at least for Bosnia, some information produced by the timber companies themselves. Lists of employees by place of origin were drawn up at the request of the provincial government. Since about 1900, most contracts included a clause requiring the company holding the concession to give preference to hiring local workers. For instance, a contract signed in 1901 with a Viennese firm included a condition according to which the company was to hire only workers of local origin, with the exception of fore-

⁵¹ *Dr. R. P.*, In einer Bosnischen Industriekolonie III. The Ruthenian Greek Catholic Church was created with the Union of Brest in 1595/1596, when Polish kings wanted to increase the Catholic presence in Ukraine. In the 1900s, most of the seasonal forest workers travelling from Galicia to Bosnia came from the eastern part of the province, where Greek Catholics were in the majority. See: *J.-P. Himka*, Religion and Nationality in Western Ukraine: The Greek Catholic Church and the Ruthenian National Movement in Galicia, 1870–1900, Montreal 1999.

⁵² Omerović, Stranci na Krivaji, pp. 139-140.

⁵³ Statistisches Departement der Landesregierung, Die Ergebnisse der Volkszählung in Bosnien und der Hercegovina vom 10. Oktober 1910, Sarajevo 1912, p. XLIX.

⁵⁴ Ibid., p. XXVII.

⁵⁵ Omerović, Stranci na Krivaji, pp. 139-140

men.⁵⁶ This was supposed to help maintain social peace by offering jobs to the Bosnian population. As a result, in the early 1900s, the number of foreigners hired by the companies tended to decline, albeit at very different rates.⁵⁷ The 1911 figures, which are the most complete, are a good indication of the situation at the time. In Bosnian Zavidovići, the number of foreigners employed by *Gregersen & Sohn* had been decreasing year after year. By 1911, only 8.4 percent, or 98 of the 1,183 workers employed by the company were foreigners. The situation at *Eißler & Ortlieb* was very different, with 38.7 percent foreign workers, which was well above the Bosnian average of 18.8 percent. At *Otto Steinbeis*, the figure ranged between 9.9 percent and 21.2 percent of foreign workers, depending on the location.

Tab. 1: Share of foreign workers in large timber companies in Bosnia in 1911.

Company	Location	Total	Foreign	
		Numbers	Numbers	Percent
Otto Steinbeis	Drvar	1,322	280	21.2
Otto Steinbeis	Dobrlijn	761	107	14.1
Otto Steinbeis	Oštrelj	2,337	231	9.9
Gustav Mechtersheimer	Višegrad	5,621	514	9.1
Eißler & Ortlieb	Zavidovići	4,645	1,798	38.7
Gregersen & Sohn	Zavidovići	1,185	100	8.4
Feltrinelli	Kasindo	1,050	79	7.5
Feltrinelli	Hadžići	111	19	17.1
Drvna industria AG	Una Dubica	1,101	390	35.4
Bosnische AG Teslić	Teslić	1,071	88	8.2
Average		19,204	3,606	18.8

Note: This table shows only companies with more than 1,000 workers. Source: Own calculations based on *Hadžibegović*, Postanak radničke klase, pp. 172-173.

A closer look at the data shows that the figures vary slightly according to the type of activity. At *Eißler & Ortlieb*, the proportion of foreigners among those employed in logging reached 52 percent, well above the Bosnian average of

⁵⁶ *L. Dimist*, Die forstlichen Verhältnisse und Einrichtungen Bosniens und der Herzegovina, Vienna 1905, p. 204.

⁵⁷ *Omerović*, Stranci na Krivaji, pp. 139-140.

18.8 percent. The proportion of foreigners was generally lower among workers employed on the timber companies' railways (11.3 percent on average), except at *Otto Steinbeis* in Drvar, where it reached 34.2 percent. In sawmills, the share of foreigners was slightly higher (21.3 percent) than among loggers, but again, it varied greatly depending on the companies. At *Drvna industria* in Una Dubica, it reached an impressive 64.1 percent, whereas in most other companies it was around 15 to 20 percent. In general, the highest figures were among foremen and supervisory staff, due to the provincial authorities' greater tolerance of the employment of foreigners in these positions.

Tab. 2: Share of foremen and supervisors among foreign workers in large timber companies in Bosnia (in 1911).

Company	Location	Total	Foreign workers	
		Numbers	Numbers	Percent
Otto Steinbeis	Drvar	62	42	67.7
Otto Steinbeis	Dobrlijn	23	6	26.1
Otto Steinbeis	Oštrelj	216	57	26.4
Gustav Mechtersheimer	Višegrad	38	18	47.4
Eißler & Ortlieb	Zavidovići	384	194	50.5
Gregersen & Sohn	Zavidovići	65	21	32.3
Feltrinelli	Kasindo	101	32	31.2
Feltrinelli	Hadžići	3	3	100.0
Drvna industria AG	Una Dubica	47	20	42.6
Bosnische AG Teslić	Teslić	37	15	40.5
Average		976	408	41.8

Note: This table shows only companies with more than 1,000 workers. Source: Own calculations based on *Hadžibegović*, Postanak radničke klase, pp. 172-173.

Precise data on Austro-Hungarians working in the timber sector in Romania are more difficult to find than for Bosnia. In general, it is certain that the influx of foreign workers must have been high. An indication of this is provided by Article 23 of the Romanian Forestry Code of 1910, the stated aim of which was to protect the jobs of local people. The fact that a law included such a specific clause, underlines just how sticky the issue of foreign workers must have been in Roma-

nia, as it was in Bosnia.⁵⁸ Data are only available for 1913-1914, in a context marked by the mobilisation of the Romanian army, the spread of a cholera outbreak in the region and the ban on emigration of persons liable for military service issued by the Hungarian government. All this led to a frantic search for the number of Austro-Hungarians in Romania at the time, as authorities were now more willing to monitor emigration and the return of their nationals. A report for the consular district of Piatra Neamt in 1913, mentions about 20,000 Austro-Hungarians working in the region, 80 percent of them in the fields and 40 percent in the forests.⁵⁹ About 70 percent were from Bukovina, 20 percent from Galicia and 10 percent from Hungary. The report also pointed out that forestry workers stayed in Romania for shorter periods of time than agricultural workers, as they usually returned home immediately after the logging season. 60 According to another report from 1914, about 70 percent of the 5,000 to 6,500 people working in the logging and forestry industry in the consular district of Craiova were from the Austro-Hungarian Empire. Romanians and Italians made up most of the rest.⁶¹ Around the same time, there were about 3,820 Austro-Hungarian workers in the counties of Prahova and Buzău, not counting family members. About 1,000 of them were employed by Goetz in Nehoiu, which represented about one-third of this company's workforce. Most of the foreign workers came from eastern Galicia, Bukovina and Hungary. 62 Many Austro-Hungarians also worked in the logging areas of Azuga, Buşteni and Siania in western Romania. In the first two places, workers from Carniola served as foremen.⁶³ It is difficult to get more precise figures for Romania, but we can see that the overall trend or magnitude of foreign employees in the Romanian timber industry was the same as in Bosnia.

In addition to considerations about skills and equipment, racial prejudices also seem to have influenced recruitment decisions. To varying degrees, most of the companies shared a segregated view of the workforce in which ethnicity played a key role. After obtaining concessions in the Bosnian forests in the 1880s, the *Brabetz* company first recruited its labour force in the Austrian provinces of

⁵⁸ *C. Botez*, Codul silvic din 9. Apr. 1910, cu moodificările din 1919, 1920, 1921 și 1923, in: Bucovina Forestieră 14/2, 2014, pp. 211-244, here p. 237.

⁵⁹ As some workers were recruited in both sectors, the total is higher than 100.

⁶⁰ The Austrian Consul in Iași to the Ministry of Foreign Affairs, September 12 1913, in: OeStA/ HHStA Ministerium des Äußern AR F31-48-1.

⁶¹ Report of the Imperial and Royal Vice-Consul in Craiova, February 26 1914, in: OeStA/ HHStA Ministerium des Äußern AR F31-48-1.

⁶² Report of the Imperial and Royal Vice-Consul in Ploiești, March 1914, in: OeStA/HHStA Ministerium des Äußern AR F31-48-1.

⁶³ Ibid.

Salzburg, Carniola, Trieste and Bohemia. This strategy entailed huge transport costs, but according to an Austrian forester, this was unavoidable because of the "notorious laziness" of the local population. The author claimed that all logging had to be done by foreigners, as the Bosnians "couldn't be taught how to use a pull saw". In 1882, a forester from Banja Luka claimed that the "natives", whether "Christian or Mohammedan", showed "little desire and skill for forestry work, or indeed for any work". At best, he said, they could be used to haul timber, while the "noble" work in the forest could only be done by *Krainer*. 65

Such racially prejudiced views appear to have been deeply entrenched among the supervisory or managerial staff of the companies. This is illustrated by the words of the director of the *Eißler & Ortlieb* logging operations in Zavidovići, quoted in 1906 by the *Arbeiter-Zeitung*, the Austrian Social Democratic Party's daily newspaper. According to the director, the Bosnians, who had "proved to be not very suitable and reliable", could only be used as "unskilled labour" in the forests or for minor tasks such as chopping firewood to fuel the locomotives.⁶⁶

Discourses on the indolence of the local population was also present in Romania. In 1892, a German forestry journal observed that the joint-stock companies operating in the country employed almost exclusively Ruthenians, Italians, Hungarians and Greeks. The author explained why: "Unfortunately, not much can be done with the Romanian at present, and it will take several ages before the Romanian farmer or field or forest worker is at least similar to ours". He blamed this situation on "the politically very dark past of Moldavia and Wallachia". ⁶⁷ Inhabitants of other Balkan countries were also often portrayed as difficult workers. In 1912, an Austrian forestry journal expressed a pessimistic view about the prospects of expanding forestry in Albania – an Ottoman province that became an independent state that year – claiming that it was "out of the question to ask the Albanians to work in the forest, even for relatively high wages, as they were said to "despise work, especially when it is done for the benefit of others". ⁶⁸

Despite these racial prejudices, most foreign companies operating in Bosnia and Romania ended up employing a growing proportion of local workers. Even

⁶⁴ K.M., Holzindustrie in Bosnien.

⁶⁵ *Neumann*, Skizzen forstlicher Verhältnisse Bosniens, in: Österreichische Monatsschrift für Forstwesen 32, 1882, pp. 174-188, here p. 188.

⁶⁶ *Dr. R. P.*, In einer Bosnischen Industriekolonie III, in: Arbeiter-Zeitung 244, September 4 1906, p. 6.

⁶⁷ *Anon.*, Über Forst und Forstwirtschaft in Rumänien, in: Deutsche Forst-Zeitung 7/13, 1892, pp. 161-165, here p. 161.

⁶⁸ *M.*, Zu den Waldexploitationsbestrebungen in Albanien, in: Österreichische Forst- und Jagd-Zeitung 30/39, 1912, p. 329.

if they were not used for all kinds of work, we can imagine that some of them eventually took on some of the most "noble" tasks, especially as there is sometimes evidence of a learning process. A source on Hungary noted at the beginning of the 1880s that "local farmers have learned so much from watching *Krainer* work that some individuals are already working as quickly and purely as their *Krainer* teachers". ⁶⁹ Certainly, highly specific techniques such as the construction of log flumes or cableways could not have been learned in a short period of time. But it is conceivable that some foreign workers transmitted their know-how to locals, even though many documented tensions between migrant and local workers suggest that a competitive relationship prevailed. ⁷⁰

Most likely, the central factor in the decrease of foreign labour and the increase in the number of local workers employed by the foreign companies, was a process of deskilling associated with the transformation of the forest economy. The significant drop in the share of staves (one of the most skill-intensive products to make) in exports in the 1900s, which followed a slow decline that began in the 1880s already, certainly played a role, as did the growth of factory employment in ever larger sawmills, which were the ideal place to hire a low-skilled and therefore easily replaceable workforce. To better understand these developments, we need to look in more detail at the issue of payment and working conditions for workers.

4 Making Labour Cheaper: Company Strategies and Worker Reactions

Motives to migrate abroad, to take up forest work, were varied. Push factors were mainly economic. In the least-fertile regions of Austria-Hungary, including parts of Galicia, Slovakia and Bukovina, agricultural productivity was low and sometimes suffered a decline. Inequitable land ownership, combined with high birth rates and persistent rural poverty, resulted in a cheap, semi-proletarianised group of labourers eager to migrate abroad for short periods of time for work.⁷¹

⁶⁹ A. Engel, Ungarns Holz-Industrie und Holzhandel, Vienna 1882, p. 77.

⁷⁰ *Anon.*, Blutiger Raushaudel, in: Neuigkeits-Welt Blatt 44, February 24 1898, p. 5; *Anon.*, Blutige Rauferei, in: Nordböhmisches Volksblatt 19, May 8 1908, p. 3; *Anon.*, Eine Schlacht im Walde, in: Prager Tagblatt 126, May 7 1908, p. 3; *Anon.*, Eine Schlacht unter 300 Waldarbeitern, in: Grazer Volksblatt 210, May 7 1908, p. 4.

⁷¹ Steidl, On Many Routes.

They welcomed the additional wages from forestry, but did not abandon subsistence farming. Instead, they preferred to carry out forest work during the parts of the year when the agricultural burden was lighter.

Highly skilled woodworkers were able to achieve better material standards at home. This was the case, for example, with Krainer and Italians from the Alpine regions. Nevertheless, their livelihoods could be threatened by the exhaustion of timber resources in their local region. This was not necessarily reflected in the forest cover rates of the regions concerned, which remained high (see Fig. 1), but in changes in the quality of the local trees, whose average age – and therefore size and diameter – tended to decline as logging progressed. For example, there was a rapid depletion of old oak forests in the Adriatic regions.⁷² In terms of pull factors, the main argument for skilled woodworkers from affluent regions to take up forest work abroad, was the prospect of an extra good income to take home at the end of the working season.

Conditions for migrant workers were easier than for agricultural settlers, in that seasonal migration offered additional income without having to change lives completely. However, male seasonal migration often had significant consequences for wives and children who stayed at home. With the primary breadwinner gone for extended periods of time, families left behind often struggled to make ends meet. Wives and children had to take on additional responsibilities in the absence of the male family members. This could include managing household chores, take care of domestic animals and often also cultivate the fields.⁷³

There were two main ways of recruiting foreign workers: companies either dispatched their own recruiters to the labour-supplying regions, or they used the services of public and private agencies. In both cases, an advance payment on future wages was offered before departure as a special incentive. For example, Ruthenian forestry workers hired by Eißler & Ortlieb in the mid-1900s received an advance of 30 to 40 crowns for the spring season,74 which roughly corresponded to three to four weeks of work (a season was on average 8 to 12 weeks long).⁷⁵ Of course, the wages – and advance payments – varied greatly depending on the region of origin. Previous studies have shown that there was no general convergence of incomes in Austria-Hungary, despite the high intensity of

⁷² I. Tekić/C. Watkins, Making Dalmatia Green Again. Reforestation at the 'Horrible Edge' of Empire 1870–1918, in: Landscape History 42/1, 2021, pp. 99-118.

⁷³ U. Brunnbauer, Globalizing Southeastern Europe: Emigrants, America, and the State since the Late Nineteenth Century, Lanham 2016, pp. 121-122.

⁷⁴ Dr. R. P., In einer Bosnischen Industriekolonie II.

⁷⁵ See figures for Galicia and Bukovina in K.K. Ackerbau-Ministerium, Statistisches Jahrbuch für das Jahr 1905, vol. 3: Forst- und Jagd-Statistik, Vienna 1905.

internal migration and the interlocking of regional labour markets.⁷⁶ This is also the case for forestry, as can be seen from the available data for the Austrian provinces, from which a large proportion of migrant workers employed in southeast Europe originated.

Tab. 3: Average nominal wages for woodcutters in Cisleithania in 1910 (by province).

Province (Crownland)	Day rates (crowns per day)		Piece rates (crowns per m³)	
	Winter	Summer	Softwood	Hardwood
Lower Austria	2.7	2.3	1.2	1.3
Upper Austria	2.2	1.9	1.2	1.4
Salzburg	3.3	3.1	3.1	2.5
Styria	2.6	2.3	2.5	1.9
Carinthia	4.1	3.5	3.0	2.5
Carniola	2.9	2.5	2.2	1.7
Austrian Littoral	2.9	2.7	2.0	2.0
Tyrol & Vorarlberg	3.9	3.2	3.3	2.6
Bohemia	1.9	1.6	1.2	1.2
Moravia	1.8	1.5	0.9	1.0
Silesia	2.1	1.7	1.0	1.2
Galicia	2.0	1.7	1.8	1.3
Bukovina	2.2	1.8	1.5	1.2
Dalmatia	2.9	2.4	1.2	1.9

Source: K.K. Ackerbau-Ministerium, Statistisches Jahrbuch für das Jahr 1910, vol. 3: Forst- und Jagd-Statistik, Vienna 1913.

Most sources suggest that the nominal wages offered for a working season in Romania or Bosnia were higher than what the workers could earn at home. A newspaper article providing figures for the *Eißler & Ortlieb* in Zavidovići in 1911 mentions a wage of two crowns per day for foreign workers.⁷⁷ This was about 10 percent to 30 percent more than a worker could earn in Galicia, Bukovina or Bohemia during the summer (see Table 5).

⁷⁶ *T. Cvrcek*, Wages, Prices, and Living Standards in the Habsburg Empire 1827–1910, in: Journal of Economic History 73, 2013, pp. 1-37.

⁷⁷ Dr. R. P., In einer Bosnischen Industriekolonie I.

Within the same company, wages paid in different foreign locations could also vary. For example, the wages of foremen working at *Goetz* sawmills, were about 33 percent higher in Galați in the Kingdom of Romania (2 florins) than in Chernivtsi in Bukovina (1 florin 50 kreuzers). For factory workers, the difference was even greater (1 florin 50 kreuzers vs. 80 kreuzers to 1 florin), i.e. the difference ranging between 50 percent to 80 percent.⁷⁸ This probably indicates that workers were in greater demand than supervisory staff, as they had to be recruited in larger numbers. In Bosnia, 81.7 percent of the people employed in sawmills in 1908 were unskilled workers and day labourers. They earned about 1.80 crowns per day, compared with 3.20 crowns for skilled workers.

Tab. 4: Wages of sawmill workers in Bosnia in 1908 (in crowns).

Type of staff	Headcount	Rates per head		
		Year average	Day average*	
Employees	211	1,782.5	5.9	
Skilled Workers	730	945.6	3.2	
Trainees	13	446.9	1.5	
Unskilled workers and day labourers	4,272	526.0	1.8	
Total	5,226	635.2	2.1	

^{*}Assuming 300 days worked per year. Source: Own calculations based on *K. u. K. Gemeinsames Finanzministerium*, Bericht über die Verwaltung von Bosnien und der Hercegovina, Vienna 1908, p. 159.

Wage differentials also applied to workers paid by the piece. In the early 1890s, the average rate paid for cutting 1,000 staves in Bosnia was about 75 percent higher than in neighbouring Slavonia (36 florins to 37 florins versus 20 florins to 22 florins). However, this figure needs to be put into perspective. Given the harsher topographical and climatic conditions, a Slavonian worker employed in Bosnia was not always able to carve as many as 10,000 stave pieces in a season, as would have been the case at home, but rather only some 6,000 to 7,000 pieces. As a result, the overall difference in payment was not so striking, with a

⁷⁸ Österreischisch-Ungarischer Verein, Special-Katalog, p. 21.

⁷⁹ *Anon.*, The Timber Trade of Bosnia and the Herzegovina, in: Journal of the Society of Arts 2072, August 5 1892, pp. 845-846.

⁸⁰ Ibid.

maximum of 260 florins for a season in Bosnia versus 220 florins for cutting staves at home.

Of course, all of these figures are only averages, and the exact amounts earned could vary greatly from individual to individual. One report on Bosnia suggests that while the average wage for woodworkers in 1910 was two to four crowns per day, Italians could sometimes earn as much as twelve crowns per day on a piecework basis, as they worked "from early morning till late at night". There was also a wide range of wages among workers paid on a daily basis. Just before the war, Bosnians earned an average of 1.60 crowns, Ruthenians earned 3.20 crowns and Italians and Slovenians earned 4.00 to 4.60 crowns.

There were other, more random factors, that could alter the amount of pay. In sawmills, unexpected closures, sickness and industrial accidents (particularly fires) led to significant differences between the expected and actual number of days worked per year, and therefore in payment. Moreover, wage contracts were not concluded on the job, but before departure, in a context in which the workers did not know the real working conditions. Apparently attractive wages could eventually turn out to be unrealistic, particularly with regards to working hours. For example, when a certain Mechel Rohl, a so-called local agent, recruited Ruthenian workers from Bukovina on behalf of the Eißler & Ortlieb company, he offered them a contract that provided for an attractive daily wage of up to 3.60 crowns, with working hours from 4 a.m. to 8 p.m., with one hour break for breakfast and one and a half hours off for lunch. According to the Arbeiter-Zeitung, this agreement was broken "from the first day after the workers arrived in Duboštica", as the workers were forced to work in the forest from 3 a.m. to 9 p.m. every day, with breakfast and lunch breaks of only half an hour.83 It was difficult for workers to predict how much they would be paid, even for a single week. A report about payment day at Eißler & Ortlieb evokes a "large crowd constantly moving around the office building", for whom individual wages varied widely: "Satisfaction or disappointment is reflected in the faces. Here is someone who is angry about the high fines that were rightly deducted from his wages [...]; another has had his wages cut; a third has been dismissed".84

This account reflects the system of payroll deductions practised by many timber companies. These deductions included fines imposed at the workplace.

⁸¹ Feitler, Industrie und Handel, p. 236.

⁸² Hadžibegović, Postanak radničke klase, p. 162.

⁸³ *Anon.*, Arbeiterausbeutung im Polizeistaat Bosnien, in: Arbeiter-Zeitung 210, August 2 1910, p. 8.

⁸⁴ Dr. R. P., In einer Bosnischen Industriekolonie I.

Company towns often had strict rules and regulations that workers were expected to follow. Fines could be imposed for accidental breakage of companyowned equipment or housing, non-compliance with safety regulations (e.g. the smoking ban in certain areas), but also for violations such as insubordination, misconduct, or breaking any other company policies. For instance, one testimony refers to very strict rules at Eißler & Ortlieb, such as prohibiting workers from talking in the workplace.85 Further wage deductions were made for rent (the companies usually owned the lodgings), medical bills, health insurance (usually between 2 percent to 3 percent) and purchases from the company store. In the end, take-home payment was not always high and often workers took out loans from the company, forcing them into debt. This was exacerbated by the fact that workers had limited choices in terms of where they could spend their earnings. The company stores typically had a monopoly on goods and services within the town. In Zavidovići, food stuff such as bread, flour, sugar and spices were reported to be expensive, as were clothes and other accessories. Only meat was cheap, at 80 hellers to 90 hellers per kilogram, but then it was of poor quality.⁸⁶ This system of shopping at company stores, known as truck system, had many workers left with only small portions of their wages.

Such payment practices could create tensions at various levels. Both the contemporary press and the archives of the Austro-Hungarian Ministry of Foreign Affairs contain cases of workers complaining that they had received incomplete wages during their stay or had even been cheated out of very large sums. In May 1902, for example, the French company Dutour & Simon was the subject of a negative report by the Austro-Hungarian ambassador in Bucharest. According to him, there had been repeated instances of large groups of Croatian workers being drawn to Romania by the company and, on arrival in the country, either being tricked into agreeing to changes in the terms of their contracts, or simply being left unpaid and without the means to travel home. Many had their passports withheld by the employer as a means of coercion.⁸⁷ Similar cases are documented in Bosnia. In 1910, the Arbeiter-Zeitung reported on the misfortunes of 68 woodcutters who had been "lured from Bukovina to the shabbiest of all Bosnian industrialists, Eißler & Ortlieb" and forced to work in Duboštica for "three full months without being paid a single penny". Seeing that all their pleas to their managers were in vain, the workers decided to quit. Twelve men

⁸⁵ *Anon.*, Arbeiterausbeutung.

⁸⁶ *Dr. R. P.*, In einer Bosnischen Industriekolonie I.

⁸⁷ Note from the Imperial and Royal Legation in Bucharest, May 28 1902, in: OeStA/HHStA Ministerium des Äußern AR F31-47-1.

went straight home, while three stayed in hospital with injuries sustained at work. The remaining 53 workers went to Sarajevo to lodge a complaint with the provincial government against the company. According to the newspaper, they waited outside the government building for six hours before a policeman "escorted" them to the station, from where they were sent back to Bukovina, having received no compensation for the losses suffered at the company.⁸⁸

Some of these cases reveal human tragedies. In 1909, a Hungarian citizen named Mile Rapaić wrote a letter to the Austrian Consul in Craiova. At this time, he was living in a small village in the Vâlcea region of Romania, where he had been working as a woodworker for the Oltul company for two years. Rapaić had come to Romania from the region of Lika in Croatia, where he was originally from. In his letter, he claimed that when he wanted to leave Romania, the company still owed him 3,023 francs and 15 bani, which he had accumulated during his two years of work in the forest.89 It was all the more important for him to receive this sum as he had gone into debt during his stay because of the high costs of living. After waiting more than two months for payment, Rapaić eventually saw all his hopes dashed: "Finally, the director called me to the company's office, forcibly took away my work book, in which I also had all my invoices, and threw me out instead of paying me". At the end of his letter, Rapaić presented himself as "a poor devil" with nowhere to go, and he asked the Ministry for protection.90 The urgency of the matter rested on the fact that workers like Rapaić could become homeless overnight, because in company towns, those who left the company or were fired lost the right to live in their homes. From the correspondence preserved in the archives, it appears that Rapaić did not receive any response or assistance from the consular authorities.

While the Rapaić case appears to be the result of serious abuse by the company, other conflicts were rooted in the ambiguities associated with the very nature of working in a foreign country. This is illustrated by the case of three Ruthenian workers, probably brothers, from the Pechenizhyn district of Galicia, who were hired by the *Tişita* company to work near the Romanian village of Mărășești. Wasyl, Dmytro and Oleksy Berbeneczuk claimed that when they returned home, at the end of March 1911, the company had shortcut their wages

⁸⁸ Anon., Arbeiterausbeutung.

⁸⁹ The wage is given in French currency (franc). Despite the introduction of a national Romanian currency in 1867 (the leu, plural lei, subdivided in 100 bani), foreign gold coins, and especially the French 20-franc pieces (equal at par to 20 lei), were commonly used in the country after Romania joined the Latin Monetary Union in 1889.

⁹⁰ Mile Rapaić to the Austrian Consul in Craiova, February 17 1909, AT-OeStA/HHStA Ministerium des Äußern AR F31-47-1

by 372 crowns and 24 hellers for Wasyl and Oleksy, and 280 crowns for Dmytro. 91 After a thorough investigation, the Austrian Embassy in Bucharest explained the dispute in terms of the exchange rate between the lei and the Austrian crown.⁹² Playing on the exchange rate seems to have been a particularly clever way for companies to make labour cheaper. Around the same time, three other Galicians employed by a Hungarian company to work in Zăbala and Musa-Mare, also in Romania, complained that to their disadvantage they had had to pay for goods in the company store in crowns and not in lei.⁹³

Of course, it is difficult to say how representative of the company-worker relations these sorts of incidents actually were. Social democratic newspapers such as the Arbeiter-Zeitung often accused what they called "big capitalist companies" of the worst abuses. 94 In addition, a number of prominent economic actors in the labour-supplying regions also had an interest in portraying working and payment conditions abroad in a gloomy light, as they feared the consequences of mass emigration for their own local businesses. In Bukovina, for example, agricultural and industrial employers often protested against the activities of "unscrupulous" employment agencies, which they claimed had promised artificially inflated wages to send thousands of workers abroad.95 Many emigration agencies, particularly in Galicia, had a bad reputation. They were compared to slave traders and accused of using people's ignorance to deceive them about working conditions and pay. Complaints about crimes such as fraud, bribery and even physical and sexual assault were frequent and led to several sensational trials.96

Certainly, misunderstandings led to disappointments and contributed to tension in the workplace for many foreign workers, both on an individual and a collective level. In September 1907, for example, a fight broke out on the prem-

⁹¹ The Ministry of Trade to the Ministry of Foreign Affairs, April 30 1913, AT-OeStA/HHStA Ministerium des Äußern AR F31-47-1.

⁹² The Austrian Embassy in Bucharest to the Ministry of Foreign Affairs, August 1 1913, AT-OeStA/HHStA Ministerium des Äußern AR F31-47-1.

⁹³ Press article (title illegible) from the press archives of the Austrian Ministry of Foreign Affairs OeStA/HHStA Ministerium des Äußern AR F31-48-1.

⁹⁴ W. Maderthaner, "Der freie Geist, das freie Wort!" Die Arbeiterpresse in Österreich von 1867 bis zur Jahrhundertwende, in: Idem. (Ed.), Arbeiterbewegung in Österreich und Ungarn bis 1914. Referate des Österreichisch-Ungarischen Historikersymposiums in Graz vom 5. bis 9. September 1986, Vienna 1986, pp. 182-194.

⁹⁵ Anon., Menschenhandel, in: Bukowinaer Post No. 1362, October 9 1902, pp. 1-2.

⁹⁶ G. Kowalski, Przestępstwa emigracyjne w Galicji 1897–1918: z badań nad dziejami polskiego wychodźstwa, Cracow 2003; T. Zahra, Travel Agents on Trial: Policing Mobility in East Central Europe, 1889–1989, in: Past & Present 223/1, 2014, pp. 161-193.

ises of a timber company operating on the Romanian-Hungarian border. Some 600 Romanian workers attacked 400 Hungarian colleagues on their way to the pay office. Several workers were seriously injured. At night, the six Romanians, armed with revolvers, repeated their attack on the Hungarians, who were asleep in their huts. The Romanians surrounded the huts and set them on fire. The fleeing Hungarians were beaten with tools. They were robbed of their clothes, money and food. The military, called in by the head of the company, was only able to restore calm, when the commander threatened to shoot.⁹⁷ According to reports from the local police office, the Romanians were angry at the Hungarians, because the company favoured them because of their work ability and paid them a daily wage of 3 crowns 60 hellers, which was much more than what the Romanians earned.98 Such inter-ethnic violence seem to have been frequent in the 1900s, particularly in Romania, but also in various other provinces of Austria-Hungary, where many fights between forest workers of different nationalities were reported, resulting in injuries and even deaths.⁹⁹ These ethnic conflicts deserve further research, but it seems that many of them were rooted in disputes over unequal pay or working conditions.

A second problem of this period was increasing social conflict. Although the companies recruited a large part of their workforce in a segment that was not the most inclined to engage in unionization or strikes (especially migrant workers who only stayed for a few months in the workplace), the companies were not spared violent social conflicts. This development could be mainly linked to the emergence of large sawmills, some of which (in Zavidovići or Nehoiu) were among the largest in Europe. The factory-like organisation of wood processing led to the deskilling of the workforce. Due to their generally low qualification levels, the sawmill workers, most of whom were employed on a permanent basis, were in an even more vulnerable position than the seasonal woodcutters and raftsmen who relied on preexisting means of subsistence. With only their labour to sell, factory workers were at constant risk of being replaced. Their working conditions were precarious, mainly because of the high risk of accidents in the mills, which were not always safe. One press article lists the compensation received by workers from *Gregersen & Sohn* in Zavidovići after serious accidents:

⁹⁷ Note from the Hungarian Ministry of the Interior, February 1 1908, in: OeStA/HHStA Ministerium des Äußern AR F31-47-1.

⁹⁸ Ibid.

⁹⁹ *Anon.*, Blutiger Raushaudel, in: Neuigkeits-Welt Blatt 44, February 24 1898, p. 5; *Anon.*, Blutige Rauferei, in: Nordböhmisches Volksblatt 19, May 8 1908, p. 3; *Anon.*, Eine Schlacht im Walde, in: Prager Tagblatt 126, May 7 1908, p. 3; *Anon.*, Eine Schlacht unter 300 Waldarbeitern, in: Grazer Volksblatt 210, May 7 1908, p. 4.

for example, 360 crowns were paid for a lost foot and 260 crowns for a lost right hand. The author claimed to be an eyewitness to 30 injuries suffered by workers in just one year. According to him, there were "no safety devices of any kind in the sawmill", which increased the risk of injury. 100

In Bosnia, one of the first major social conflicts involving forestry workers broke out in the Tešanj district in 1893. About 400 workers wanted to leave the Morpurgo-Parente company without notice, after having received an advance on their wages. The company asked the authorities for help. In a telegram to the provincial government in Sarajevo, it asked for police outpost to be set up to prevent the workers from leaving the country. The company said it was prepared to provide the officers with accommodation, food and even salaries. According to Ilijas Hadžibegović, the cause of this conflict was low wages and difficult working conditions, as reported in an article by a German newspaper Ostdeutsche Rundschau in 1894.¹⁰¹ Working conditions, in particular working hours, seem to have been one of the most important points of conflict, along with wages (the two issues were obviously linked). At the beginning of the 1890s, in the Goetz sawmill in Galati, the working day was 13 hours for day workers and 12 hours for night workers, without a break. After the strike that broke out in August 1892, the number of working hours was reduced to 11 hours during the day and 11 hours during the night. A one-hour break was also introduced for night workers. 102 Such concessions seem to have only been made at a limited number of companies, so similar strikes multiplied in the 1900s. In Bosnia, the military was often called in by the companies to take action against the workers. This was the case, for example, in May 1906, when strikes continued in various sectors of the Bosnian economy. Three infantry units were sent to Zavidovići to prevent a strike by workers at Eißler & Ortlieb and Gregersen & Sohn. 103 A year later, another strike threatened to paralyze the same plants. The reason, according to the Arbeiter-Zeitung, was that the workers "no longer wanted to endure the inhumanly long working hours of fifteen hours a day". 104 The timber companies operating in Zavidovići attracted a lot of negative attention, not only from the press, at that time. At the fourth Bosnian Trade Union Congress, held in Sarajevo in July of 1910, conditions at Eißler & Ortlieb were the main topic of discussion. Some

¹⁰⁰ T.O.C., Aus dem Krivajathale, p. 83.

¹⁰¹ I. Hadžibegović, Položaj radništva u Bosni i Hercegovini do majskih štrajkova 1906. godine, in: Prilozi 3, 1967, pp. 47-74, here pp. 56-57.

¹⁰² E. Mihály/S. Mihály, Începuturile mişcării muncitorești și socialiste în Galați, in: Danubius 5/1, 1971, pp. 165-182, here p. 172.

¹⁰³ Anon., Die Streikbewegung in Bosnien, in: Arbeiter-Zeitung 136, May 18 1906, p. 9.

¹⁰⁴ Anon., Aus der Arbeiterbewegung in Bosnien, in: Arbeiter-Zeitung 138, May 22 1907, p. 11.

speakers vehemently denounced the "brutalities" committed in the workplace and some government officials in Zavidovići were accused of making a pact with the employers against the workers.¹⁰⁵ These tensions were part of a more general context of strikes and political protests that took place in many Austro-Hungarian cities in the wake of the Russian Revolution in 1905 and made employers more determined to use force against strikers and to employ anti-labour tactics.¹⁰⁶

5 Conclusion

The rise of the timber trade in southeast Europe from the 1880s onwards had a profound impact on landscapes and livelihoods, drawing thousands of workers from distant regions to cut, transport and process trees. This initial survey of sources suggests that the priority given by companies to foreign labour was part of a cautious risk-taking strategy, reinforced by racial prejudice against local populations. When arriving on a newly opened timber frontier, industrialists preferred to rely on what they considered to be the highest quality workforce, made up of teams of well-equipped and well-organised workers who had proved reliable in the past in other locations.

While the few existing works on the labour migration of forestry workers in northern Europe have mainly focused on the question of technical skills and language, ¹⁰⁷ American historiography on the subject has also highlighted the question of perceived racial hierarchies and how the reputation of a particular national group tended to be bolstered by employers' long-term racial imaginations. ¹⁰⁸ In that respect, the *Krainer* in southeast Europe played a role similar to that of the French Canadians in the United States at the same time: that of a workforce considered valuable in forestry work and perceived to be "naturally" suited for logging. ¹⁰⁹ Interestingly, while Italians were much in demand in forestry work throughout southeastern Europe, in the United States they were rarely seen on logging sites and were generally considered unfit for work in the timber

¹⁰⁵ *Anon.*, Arbeiterausbeutung.

¹⁰⁶ *A. Caruso/C. Morelon*, The Threat from Within across Empires: Strikes, Labor Migration, and Violence in Central Europe, 1900–1914, Central European History 54/1, 2021, pp. 86-111.

¹⁰⁷ Snellman, Migrants Living off; Roddvik/Leick/Roddvik, Norwegian Entrepreneurs.

¹⁰⁸ Chung, Chinese in the Woods; Newton, These French Canadian.

¹⁰⁹ Newton, These French Canadian, pp. 121-123.

industry. ¹¹⁰ Such discrepancies remain to be investigated further – perhaps the Italian migrants to the United States and those who went to southeast Europe did not come from the same Italian regions. In any case, the variety in prejudices confirms the socially constructed nature of these racial imaginaries.

In the 1890s and early 1900s, workers from Austria-Hungary and northern Italy made up a significant proportion of forest workers in southeast Europe. It is likely that their relative share declined thereafter, but they still made up an average of 20 percent to 30 percent of the workforce on the timber frontier in the early 1910s in both Bosnia and Romania. Similar figures can be found on other timber frontiers, for example in North America around the same time. Relative to locals, foreign workers were overrepresented in jobs requiring technical or supervisory skills, which meant that they remained strategically important to the companies. However, as was generally the case in North American logging camps, the number of foreign workers employed varied greatly from company to company.

The problem, as is always the case on a resource frontier, was that this foreign labour was typically not cheap. Although the companies made extensive use of seasonal migrant workers, who continued to earn the major part of their livelihoods elsewhere and thus outside the realm of responsibility of the companies, there is ample evidence that the workers attracted to Bosnia and Romania were not always cheap enough in the eyes of the industrialists. The attempt to get the best at the cheapest price, led to many abuses. Cases of workers complaining about pay cuts, harassment or lack of safety in sawmills were common. Workers' dependence on their employers was most evident in the *truck system*, which allowed the latter to make labour cheaper by recovering part of the wages paid.

Most of the big companies remained reluctant to hire large numbers of local workers until the end of the period studied. All of them eventually did so, but it seems to have been mainly at the request of the political authorities who, in Bosnia and in Romania, wanted to secure local employment in order to maintain social peace. The main disadvantages of hiring local workers, in the eyes of companies, was the difficulty of controlling them. Although poor, local workers enjoyed relative economic independence, at least as long as they didn't aban-

¹¹⁰ Ibid, p. 124. In British Columbia, many employers considered the prototypical logger to be Scandinavian (Swedish, Norwegian or Finnish). See *E. St. Jean*, Swedes on the Move. Politics, Culture, and Work among Swedish Immigrants in British Columbia, 1900–1950, Unpublished Dissertation, University of Victoria 2004, pp. 138-139 and pp. 150-151.

¹¹¹ For example, French-Canadians made up 33.6 percent of the "woodchoppers, lumbermen [or] raftsmen" working in New England in the northeastern United States in 1900. See *Newton*, These French Canadian, pp. 122-123.

¹¹² *St. Jean*, Swedes on the Move, pp. 150-151.

don subsistence farming near logging sites and sawmills. Foreign workers, by contrast, were far from home, and could find themselves in a desperate situation in the event of a dispute with their employer. It should not be assumed, however, that the companies were all-powerful and always able to prevail. The concentration of large numbers of workers in company towns posed a major social conflict risk for employers, although they could always count on the support of the local police and even the army to restore order. There were several examples of successful worker strikes, showing that the process of keeping wages down was sometimes fiercely resisted.

These episodes of conflict and resistance, however, did not call into question the central role played by Austro-Hungarian forest workers in supplying labour to the timber frontier, not only in southeast Europe. The migration corridor to Russia could be the subject of future study, as several companies active in southeast Europe were also present there, while recruiting some of their migrant workers from the same areas. Although the emigration of Austro-Hungarian citizens to the Russian Empire remained relatively modest throughout this period, at least compared to that of Germans, by 1900 there were many Czechs, Ukrainians and Poles from the Habsburg Empire who migrated to Russia, particularly to the South-West Territory and the Kingdom of Poland. There is some evidence that the forestry sector was employing a number of them. *Krainer* forest workers, for instance, were in demand also in this part of Europe, as evidenced by the fact that in 1894 the Russian consul in Chernivtsi contacted the Chamber of Commerce in Zagreb to obtain information about the possibility of recruiting some *Krainer* for woodworking in Russia. Russia.

The destinations of Austro-Hungarian forestry migrants to Russia, like southeast Europe, were linked to the rapid advance of the timber frontier there. In the Russian province of Volhynia, for example, a large colony of workers was established in the 1880s on a tract of forested land purchased by Count Berg and exploited by the German company *Wilhelm Koehne & Co* from Berlin. This settlement, which quickly became known as *Keneberg* – a term that combined the two names – was organized around a huge steam sawmill connected to a narrow-gauge company railway linked to the main network. Its population was

¹¹³ *A. Pticyn*, Struktura avstro-vengerskoj immigracii v Rossijskoj imperii, in: Gumanitarnye i juridičeskie issledovanija 3, 2015, p. 44-49, here pp. 45-46.

¹¹⁴ Anon., Krainische Arbeiter für Russland, in: Continentale Holz-Zeitung 6/26, 1894, p. 227.

¹¹⁵ *J. Daheur*, Productive or Extractive Periphery? Russian Poland and Timber Exports to Germany in the Late Nineteenth and Early Twentieth Centuries, in: Global Environment 15/1, 2022, pp. 107-147.

around 4,000.¹¹⁶ Unfortunately, we know very little about this company-town, that is however very reminiscent of the cases of Zavidovići and Nehoiu. Given its proximity to the Austrian border (Keneberg was only a few dozen kilometres from Galicia), it is very likely that Austro-Hungarian workers made up at least a part of the workforce. This hypothesis is credible because we know that another Berlin company active in the Russian Empire, the *Berliner Holz-Comptoir*, which also owned several sawmills in Romania,¹¹⁷ employed many Austro-Hungarians at a site in Lenino (in present-day Belarus). A Russian report states that among the 325 workers employed in felling and cutting, there was a near-majority of Austrians (164), while Germans were far behind (35).¹¹⁸ These cases, and others that existed but are under-researched, deserve further investigation in order to provide a truly continental picture of the European forestry labour market and the prominent role of Austria-Hungary in this history.

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¹¹⁶ *Anon.*, Kalifornia wołyńska, in: Kuryer Lwowski 63 (supplement), March 3 1887, p. 4; *A. Liprandi*, Germanija v Rossii, Kharkov 1911, p. 144.

¹¹⁷ N. Paianu, La grande industrie en Roumanie de 1866 à 1906, Bucharest 1906, p. 92.

¹¹⁸ According to a report by the governor of Minsk dated February 25 1888, quoted in: *K. Šabunja/V. Žigalov*, Belorussija v èpohu kapitalizma, vol. 1, Minsk 1983, pp. 106-107.