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Rural Society at the Time of the Cholera Outbreak: Household and Social Structure, Taxation and the Cholera Outbreak in Endrőd (1834–1836)

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Endrőd is a village in Békés County along the Körös River. A census taken by the local church administration presents the composition of 663 household from 1835. From the perspective of household structure studies, this source is unique in length, age, and complexity. Furthermore, cholera destroyed the settlement the year before and after the census was taken. The census and parish registers offer sources on which one can study the impact of the epidemic on households. The tax register from 1834/1835 allows for the classification of family heads into tax categories, so we can extend the test to the relationship between financial background and mortality rate. This multivariate analysis uses the sources and methods used in epidemic history, social history, and historical demography.

Keywords: cholera, historical demography, tax registers 1834/35, mortality and welfare, spatial patterns

While browsing the archives of the parish of Endrőd, I came across a parish family book (“register of souls”) dated 1835, the first page of which (after the cover decorated with floral patterns) bore the title *Az Endrődi Hívek Összeírása 1835-ik Esztendőtol Kezde* G[öndöcs] J[ózsef káplán] (“Register of the Believers of Endrőd as of 1835 A.D. [Chaplain] J[ózsef] G[öndöcs].”

Endrőd today forms part of the town of Gyomaendrőd in southeastern Hungary on the banks of the Körös River. According to András Vályi’s description, it is a “Hungarian village in Békés County, the lord of the manor is Baron Harucher, the inhabitants are Catholic, situated near Gyoma and Ötsöd, belonging to the estate of Gyula, its arable lands are mostly good, meadows similarly, pasture is suitable for cattle of several herds, though some parts of its arable lands are flooded and some parts are nitrous, few woods and reeds, mill is negligible, marketplace is second-class due to its distance.”¹ It would require a separate analysis to determine what Vályi meant precisely by “Hungarian village.”

1 Vályi, *Magyarországnak leírása* I, 577.

In fact, Johann Georg Harruckern, council member of the Hofkammer (the Exchequer of the Habsburg Empire), who received the settlement as part of the estate of Gyula, settled Hungarians and Slavs here in the 1720s and 1730s, mainly from the north of the Kingdom of Hungary, but following the initial period, during the work of parish priest Sámuel Pálffy (1772–1780), celebration of the mass in Slavic languages stopped,² and as Elek Fényes put it in the mid-nineteenth century, “Slovaks also came, but they have now become entirely monolingual Hungarian.”³ In Fényes’s description, the arable lands are not only “mostly good,” but “they have such fertile, black clay soil mixed with sand that its winter wheat produces 15 seeds and its spring wheat produces 20.”⁴ Almost all (according to Fényes, 98 percent) of the inhabitants were Roman Catholic. The lord of the manor in the period under examination was baron Flórián Drechsel’s wife, Countess Karolina Stockhammer of the naturalized Stockhammer family.⁵ Regarding its geographical location, the village is a blank spot for analyses from the perspective of household structure, historical demography, or a deeper social history; only local ethnographic research has produced some serious results.⁶

The scholarship on household structure is “confusingly rich,”⁷ so I can present here only a very brief overview. In his book *Property, Production, and Family in Neckarhausen 1700–1870*, which was published in 1990, David Warren Sabean outlined the following evolution of household structure research: he named Frédéric Le Play and Wilhelm Riehl as the prominent representatives of the first generation of researchers in the field.⁸ Although the closely related Hungarian literature considers Le Play a sociologist, Sabean emphasizes the ethnographic character (*Volskunde*) of the research and conclusions of the first generation, where Le Play and Riehl saw the original patriarchal structure of the family⁹ as a continuous and functional whole with a head and dependent members.¹⁰ Le Play defined the stem family (*famille-souche*, when a married child remains in the

2 Márkus, *Békés vármegye*, 282; Pesty, *Békés megye Pesty Frigyes helynégytűjtésében*, 40; Karácsonyi, *Békés vármegye története II. kötet*, 97; Iványi, *200 éves az endrődi Szent Imre templom*, 52.

3 Fényes, *Magyarország geographiai szótára*.

4 Ibid.

5 *Historia Domus: Historia Ecclesiae, et Parochiae Endrődinensis conscripta Anno 1833*, GySzIPL, 41; Szilágyi, “Egy 19. század eleji birtokelidegenítés esete,” 771–94; Szilágyi, “Indigenák és helyi társadalom,” 140–47.

6 See the *Endrődi füzetek* [Endrőd Journals] series published between 1992 and 2014.

7 Óri, and Pakot, “Háztartásszerkezet,” 165.

8 Sabean, *Property, production, and family*, 89.

9 For more detail, see Andorka, “A család és háztartás nagysága,” 147.

10 Andorka, “A család és háztartás nagysága,” 147; Melegh, “A tizenkilencedik század eleji városi háztartások,” 135.

parents' household) and Riehl the enclosed household estate¹¹ (*das ganze Haus*) as transformations of this patriarchal structure. According to Le Play's concept, the parent couple lived together with one of their children and his or her family, while the others left the household.¹² Sabeau regards Karl Bücher as a member of the second generation of researchers. According to Bücher, the basis of the functioning of a household is production and consumption, producing for its own needs, and the family members do not participate in the production of goods. Like Bücher, Aleksander Chayanov, in his analysis of Russian peasant society, also saw the key to the functioning of the household in the close interrelationship of production and consumption.¹³ The third approach was built on these concepts. It originated in the study of historical demography, mainly in the work of Peter Laslett, who by that time had serious doubts as to the reliability of the widely known concept formulated by Le Play.¹⁴

Laslett questioned the "statements regarding the average size and structure of pre-industrial families and households and the historical change they allegedly underwent."¹⁵ He objected to the fact that, although it had not become an exclusively accepted concept (research by Marion Levy explicitly refuted this hypothesis), it still was a recurrent "stereotype to talk about structures consisting of 30–40 members and three to ten families. When, however, historians analyzed the totality of households of a settlement or estate on the basis of surviving census records, it turned out that in reality, most peasant households were significantly smaller than this."¹⁶ Laslett et al. conducted research covering England and northwestern Europe in the seventeenth, eighteenth, and nineteenth centuries, which revealed a generally higher rate of nuclear families. Deviating results were found in analyses of family structures in the Balkans, where larger, more complex households occurred relatively often.¹⁷ The concept of patriarchal (married sons living in the same household with the parents) and stem family cohabitation was thus refuted, facilitating an understanding of the profound economic and social (including demographic) processes taking place in the nineteenth century.

11 Translated by Gergely Krisztián Horváth; see Horváth, *Bécs vonzásában*, 35.

12 Sabeau, *Property, production, and family*, 89; Andorka, "A család és háztartás nagysága," 147. Melegh, "A tizenkilencedik század eleji városi háztartások," 135–36.

13 Sabeau, *Property, production, and family*, 95.

14 Sabeau, *Property, production, and family*, 99; Bácskai, *Család, háztartás, társadalom*, 7; Andorka, "A család és háztartás nagysága," 147–48.

15 Melegh, "A tizenkilencedik század eleji városi háztartások," 135.

16 Andorka, and Faragó, "Az iparosodás előtti," 402.

17 Ibid., 402–3.

At the same time, Laslett's typology of household structures and John Hajnal's typology¹⁸ (its excessive complexities notwithstanding) also highlighted the relevance of cultural differences and the composition of the community, even if the acceptance of the role of the latter has now been overshadowed.¹⁹ The greatest difficulty faced in the research, hence, lies not in the various concepts, hypotheses, and further research prospects, but rather the lack of usable, reliable, and in particular dynamic sources. Although it is true that a dynamic analysis of the evolution of households would and could be more practical for the purpose of understanding the quality of cohabitation and also more meaningful than the mere exploration of regional samples, unfortunately these kinds of analyses can only be done in exceptional cases. Albeit Chaplain Göndöcs also started the parish family book with high hopes in 1835, by 1836 he mostly had recorded only the births up until that time and the information concerning those who had died of cholera (and not even everyone who belonged to this latter group!), and by 1837 only a small number of new or corrected entries had been added, and none were added in 1838. The national census of 1869 is the nearest in time to this period, but its record sheets have not survived from Endrőd (Mezőberény is the only settlement in the county for which the records survived).²⁰

But this is just, so to speak, one of the basic problems regarding the analysis of households. The relevant literature has been discussing the problems of the term “household” for a long time. Gyula Benda used a succinct and witty definition, so it is worth quoting it in its entirety: “The household, i.e. basically a group people living under the same roof and of the same bread, is both an economic and social basic unit before industrialization. In the case of family estates, which were still dominant in the Early Modern period (whether agricultural or artisan in nature), the unit of production (and thus taxation) is also this cohabiting group. The family and the household are also the basal cell of accumulating and transferring wealth—their characteristics are closely related to the systems of inheritance. Finally, it is also a unit of consumption, everyday life is organized in its context.”²¹ Tamás Faragó, comparing the definition of

18 Hajnal, “European Marriage Patterns,” 101–43; Hajnal, “Two Kinds of Preindustrial Household,” 449–94.

19 Fauve-Chamoux, “Strategies of Household Continuity,” 138; Bácskai, “*Család, háztartás, társadalom*,” 7; Derosas, and Saito, “Introduction,” 1; Oris, and Ochiai, “Family Crisis,” 23; Őri, and Pakot, “Háztartásszerkezet,” 166; Szoltysek, “Rethinking Eastern Europe,” 389–427; Szoltysek, “Spatial Construction,” 11–52.

20 MNL BéML V. B. 326. d.

21 Benda, “A háztartások nagysága,” 109.

the household with the definition of the family, wrote that the “household is different from the family both in its concept, content, organization, and system of activities, particularly in the pre-industrial era. Its members are bound by kinship (consanguinity, affinity, or fictive kinship) and by legal relationships (e.g. servants) and functional ties. Its core is usually but not necessarily a family.”²² Understanding and using the term becomes more difficult when it becomes apparent that households have various structures and different sizes even within individual settlements. In such cases, according to Benda, different models are developed which attempt either to present the different variations in their entirety or to present the shades of the various types through in-depth qualitative research, both on the international and domestic levels.²³ The interpretation of the function of the households poses another set of problems. More than half a century ago, József Tamásy regarded them as mere economic communities, while Faragó emphasizes that the household group creates the necessary living conditions and ensures the socialization of new members, providing a material and mental “home space.”²⁴ The more recent research of Péter Őri and Levente Pakot highlights the demographic and economic roles of the household, which are easier to grasp in quantitative terms.²⁵

Tamásy highlighted the cohabitation of Croatian extended families in the eighteenth-century Kingdom of Hungary, where the average number of people in one household was over eight, while in Transylvania, Transdanubia, the Great Hungarian Plain, and the northern region of the country not many more than five people lived in the same household (with only minor differences in the different regions).²⁶ Later domestic macroanalyses confirmed the proportion of

22 Faragó, “Nemek, nemzedékek, rokonság, család,” 393–483. 455.

23 Benda, “A háztartások nagysága.”

24 Tamásy, “Az 1784–1787. évi első,” 527; Faragó, “Nemek, nemzedékek, rokonság, család,” 455. Faragó distinguishes these functions from the family by giving the following explanation: “albeit the terms of family and household can coincide, it is an undeniable fact that the two are not always the same. A family is not necessarily characterized by cohabitation, the socialization of new family members and the performance of household functions do not always occur within the family, and the ‘home space’ also often extends beyond the family.” Faragó, “Nemek, nemzedékek, rokonság, család,” 455–56.

25 “In past societies where reproduction of the population was connected primarily to the institution of marriage and where the households (groups of people actually living together and cooperating, whether they were relatives or not) represented the basic unit of work and consumption in addition to demographic reproduction, the marriage customs and the rules of forming a household had a direct impact on population development.” Őri, and Pakot, “Háztartásszerkezet,” 164.

26 Tamásy, “Az 1784–1787. évi első,” 530–31. Regarding the usability of extended family, see: Andorka, and Faragó, “Az iparosodás előtti,” 414.

households with an average of more than five people from the second half of the eighteenth century to the first decades of the nineteenth. Although the nuclear household could still be regarded as the dominant type, “the proportion of complex (extended and multiple-family) households was not insignificant, and at least in some areas, the majority of the population lived in such types of households type in one or another stage of their lives (...).”²⁷ Furthermore, it is important to note that “households with a great number of people and a complex structure occurred primarily among serf peasantry, and only very rarely among landless layers of society.”²⁸ Even though Faragó emphasizes the lack of sources, he did demonstrate the dynamic transformation of the household structure in the period of more than half a century in question. He concludes that in order to avoid the fragmentation of estates, becoming a landless serf (*zsellér*), or impoverishment, the proportion of complex households increased between 1787 and 1828, but at the same time, the household structures of different villages show various differences on a regional and ethno-cultural level.²⁹ Micro research both confirmed the above conclusions and may have also refined them with restrictions to local circumstances. Such research includes the study conducted by Andorka and Sándor Balázs-Kovács in Sárpilis, where they repeated the above with respect to the size and composition of the households. Faragó broke down his data according to social strata in his examples from Pest county, but his micro findings verify the nationwide conclusions. The study by Magdolna Balázs and László Katus focusing on Central Transdanubia emphasizes the similarity with the Balkan and eastern household structure, while Gyula Benda’s analysis in Keszthely also establishes the dominance of the nuclear family and the more complex structures observed among farmers, serfs and merchants. Thanks to her sources, Ildikó Husz was able to perform an in-depth analysis of the households of Zsámbék in their dynamics, and she confirmed Faragó’s conclusion regarding the temporary increase in households of a more complex composition, similarly to Balázs Heilig’s analysis in Szőlőszárd.³⁰

27 Andorka, and Faragó, “Az iparosodás előtti,” 437.

28 Ibid., 437.

29 Andorka, and Faragó, “Az iparosodás előtti,” 437; Faragó, “Nemek, nemzedékek, rokonság, család,” 460–68; Faragó, “Különböző háztartás-keletkezési,” 36–37.

30 Andorka, and Balázs-Kovács, “A háztartások jellemzőinek,” 229–33; Andorka, and Faragó, “Az iparosodás előtti,” 417–21; Balázs, and Katus, “Közép-dunántúli paraszti,” 166; Benda, “A háztartások nagysága,” 134. Husz, *Család és társadalmi reprodukció*, 69–74; Heilig, “Paraszti háztartások,” 253–54.

My source, in the absence of any reference to a higher order, is a “church register of souls,” or a *status animarum*.³¹ In the source, the households are not distinguished from one another consistently, which also reinforces the foregoing. At the beginning of the family book, the relationships to the head of the household are accurately described, and later the indication of relations perceived as unambiguous (i.e. children) is omitted. In the second half of the book, even the status of alien persons (mainly servants) is often omitted. The heading of the family book is the following: *Háznak a' száma, Vezeték és Kereszt Neve, Sorsa, Kora (Eszet., Holn., Nap), Egy Házi Család Száma, Idegen Vallásnak, Észrevételek*, or House Number, Family and Given Names, Fate, Age (Year, Month, Day), Number of People in the Household, Foreign Faith, Comments. As regards people who belonged to a so-called foreign faith, József Göndöcs recorded their number but failed to provide more details. Taking house number 9 as an example, we can first see the name of Mihály Bentsik (*Fate: Landoner farmer*), followed by his wife and daughters, then a female servant. Without any separation, the records continue with György Vaszkó (*Fate: tenant*) with his wife, daughter, and siblings. This row is then closed by a horizontal line, the *Number of People in the Household* is 10, then István Bálint (*Fate: in the great vineyard*) with his wife and two children. The family number thus increases to 14 people. As far as I know, there were no close family relations between Mihály Bentsik and György

Table 1. Number of houses and households in Endrőd (1787–1835)

	1787	1817	1828	1828–1829	1830–1831	1835
	Census	census	national census	census	taxation-related census	parish family book
Houses	388	607	705	664	640	665
Households	504	862	780	821	688	960
General size of household	5.38	5.54	–	8.13	–	5.75
Total number of inhabitants	2,712	4,779	–	5,401	–	5,527

Source: Erdei, *Békés megye*, 113; Believers of Endrőd 1835. GySzIPL

31 Andorka, and Faragó, “Az iparosodás előtti,” 403.

Vaszkó, but still, the two family heads were not separated from each other in the family book. In another example, in the case of house number 96, *tenant* Imre Fülöpp starts the row, followed by his wife, then Mihály Denitska, *furrier, tenant*, and his wife and daughter. The row is separated by a line from István Farkas (*Fate: in the great vineyard*), his wife, and son. Then, another line separates them from György Batsa, *homeowner farmer*, and his family, who should have been in the first place according to the generally applied logic of the family book.

If one compares the values of the earlier censuses and our source, although the number of households would probably have approximated the previous values if I had calculated the number of households along the lines drawn by the chaplain, due to the inconsistencies indicated above, it seemed more practical to apply the considerations of Őri and Pakot. While processing and coding the data, I considered one household where even though several family nuclei lived together, it was clear that they were close relatives, and I distinguished them from those in which, though not separated by a line, the tenants, gardeners, servants, and other employees were not relatives, but had a family.³² According to this method, a total of 960 households could be unambiguously distinguished.

Table 2. Average size of households and the number of married men per household, Endrőd, 1835

De facto population	Number of married men	Number of households	Average size of households	Number of married men per household
5,527	1,109	960	5.75	0.92

Source: Believers of Endrőd 1835. GySzIPL

The average size of households in 1835 does not indicate a cardinal deviation from the value of slightly more than five, which is treated as average in the literature. Therefore, the values of Endrőd correspond to the national average, so they (including the number of married men per household) can be considered representative values.

I used the Laslett–Hammel typology to classify the households in which (as seen from Table 3) 65 percent were nuclear households, which fits well in the series of literature refuting the theory of the dominance of stem families. According to the source, in addition to then 25-year-old homeowner farmer, Mátyás Juhász, who was in the lower category of taxpayers with his tax of

32 Őri, and Pakot, “Háztartásszerkezet,” 171–72.

Table 3. Household structure according to main household categories, average size of households, Endrőd, 1835

Types	Households		Population		Average size of households
	N	percent	N	percent	
1. Solitaries	4	0.4	4	0.1	1.0
2. No family	7	0.7	30	0.5	4.3
3. Nuclear	624	65.0	2,979	53.9	4.8
4. Extended	131	13.6	810	14.7	6.2
5. Multiple	189	19.7	1,698	30.7	9.0
6. Unclassifiable	5	0.5	6	0.1	1.2
Total	960	100.0	5,527	100.0	5.6

Source: Believers of Endrőd 1835. GySzIPL

3 forints and 5 kreutzer, three widows lived alone: Mrs. István Palócz aged above seventy, Mrs. Mátyás Roncsek nearing her fortieth year of age (*Widow Landowner*), and Mrs. Mátyás Tímár (aged 22) spent their year of mourning in the period of the family book (October/November 1835).³³ Those living in households with no family included János Lábos, the parish priest of Endrőd between 1825 and 1840, the *Curator of the Church* (caretaker) József Szölösy, and the unmarried manservants working at the slaughterhouse. Lábos's household included the author of the source, the 28-year-old chaplain József Göndöcs, as well as chaplain János Piringer, the priest's sister, and two servants. I considered "unclassifiable" the *House of the Lord of the Manor*, the *House of the Village*, and the Arany Patkó lodging house, which Göndöcs records as a separate house, even though he also notes that its tenants have been recorded under house no. 2. In the case of another two houses, albeit the *Tenants* themselves are known, the source only comments on the others that "at this house live a total of ununited Vlachs: 7." In these cases, the relationships were impossible to explore.

The rate of 19.7 percent of households with multiple families is nearest to the 1808 value of Tiszacsege (18.4 percent), so corresponding to the classification of Faragó with the help of the Laslett–Hammel system, it constituted a temporary group.³⁴ This is worth noting because for Faragó's group, this temporary nature can be demonstrated in both Calvinist and Roman Catholic settlements, as well as in both Hungarian-speaking and Slovak-speaking settlements, and in this

33 Mátyás Roncsek died in January 1835, István Palócz in February, and Mátyás Tímár in September.

34 Faragó, "Rokonsági viszonyok," 256.

regard, Endrőd has all these attributes. It was predominantly Catholic but with a significant proportion of neighboring Calvinist settlements; it was Hungarian but part of the population was of Slavic origin. The average size of households (obviously) increased with the complexity of the households, and in comparison with the 1869 value, the values of Endrőd (apart from nuclear households) are on average higher by one person.³⁵

Table 4. Breakdown of households according to the gender and age of the household head, Endrőd, 1835

	Age groups							Total	
	<25	25–34	35–44	45–54	55–64	64<	no data	N	(percent)
Male	66	218	225	174	136	56	3	878	91.5
Female	4	15	13	18	20	7	2	79	8.2
No data	0	0	0	0	0	0	3	3	0.3
Total	70	233	238	192	156	63	8	960	100.0

Source: Believers of Endrőd 1835. GySzIPL

If we look at the distribution of household heads according to gender, the dominance of male household heads is apparent. Men aged between 25 and 44 constituted the main body. More than half of all the men belonged to this age group, while this ratio is only 6.4 percent in the case of men above 64. However, only rarely were older men living in the family not the head of the household as well: in all seven such cases, the man (whether he was the household head's father or other) was 70 years old or older. In the case of women, a greater number in the older age group of 45–64 became household heads upon becoming widows. The age of non-head cohabiting elder women was 65 or higher.

Table 5. Households according to the household head's gender and the main categories of household structure, Endrőd, 1835

	Household type							Total	
	1	2	3	4	5	6	No data	N	percent
Male	0.1	0.7	66.1	13.1	19.9	0.1	0.0	878	91.5
Female	3.8	1.3	55.7	20.3	17.7	1.3	0.0	79	8.2
Total	0.5	0.9	65.3	14.1	20.2	0.8	0.0	957	99.7

Source: Believers of Endrőd 1835. GySzIPL

35 Őri, and Pakot, "Háztartásszerkezet," 174.

The correlations between the household types and the household head's gender are shown by the percentages in table 4. These indicate that higher rates of men are heads of nuclear and multiple-family households, while women have greater proportions in the other variations. The situation of female household heads belonging to the first type has been discussed above. Households with no family show higher values for women only because of the proportions: this is actually one woman, 23-year-old Ágnes Goda, who lived in a household with her siblings. In the case of households with complex families, we can speak about households in which widows lived together with one or more of their married children and the widow did not transfer the household headship to one of her children. This was the case for Mrs. András Cz. Tóth, the widow of a landowner farmer, who paid taxes on nine acres of arable land, 5.5 acres of meadow and 1.5 acres of vineyard and lived together with her two sons, András (25) and István (20) and their wives and children. Accordingly, the conclusions deriving from the values in the table correspond to the findings of the MOSAIC project.³⁶

Table 6. Household structure according to the age groups of male household heads, Endrőd, 1835

Household category	Age groups						N
	<25	25–34	35–44	45–54	55–64	64<	
1. Solitaries	0.0	0.5	0.0	0.0	0.0	0.0	0.1
2. No family	4.5	0.5	0.0	0.6	0.7	0.0	0.7
3. Nuclear	71.2	75.2	81.8	64.4	41.9	23.2	65.9
4. Extended	19.7	18.3	8.0	9.8	11.8	19.6	13.1
5. Multiple	4.5	5.5	10.2	25.3	45.6	55.4	20.0
6. Unclassifiable	0.0	0.0	0.0	0.0	0.0	1.8	0.1
Total (percent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	66	218	225	174	136	56	875

Source: Believers of Endrőd 1835. GySzIPL

36 "In higher age groups, there was a greater chance to live together with one or more married children, much as there was a higher chance of remaining alone after becoming widowed or living under the same roof with people other than relatives. The phenomenon of women becoming heads of the households was related to special stages of the life cycles of the households. Living alone could be typical both of younger and older household heads, recently widowed household heads with children tended to be younger women (nuclear households), while living together with married children as the heads of the household was more typical of older women (households with extended or multiple families). In conclusion, the household heads' gender was an important factor of the composition of the household." Óri, and Pakot, "Háztartásszerkezet," 176.

The conclusions suggested by the values contained in table 6 also correspond to national trends. Male household heads under 54 years of age dominate in the case of nuclear households, while men in higher age groups are heads of multiple-family households. Those who became household heads young either became heads upon getting married and leaving the parents' home or inherited the household after their parents had died. They most often were the heads of nuclear households. Less often, if they were not yet married, they lived alone or maybe with other unmarried persons.³⁷ Aging men, however, lived together with their married child(ren) and their families in increasing proportions.

Table 7. Household structure according to the age groups of female household heads, Endrőd, 1835

Household category	Age groups						N
	<25	25–34	35–44	45–54	55–64	64<	
1. Solitaries	25.0	0.0	7.7	0.0	0.0	14.3	3.9
2. No family	25.0	0.0	0.0	0.0	0.0	0.0	1.3
3. Nuclear	50.0	100.0	69.2	44.4	45.0	14.3	57.1
4. Extended	0.0	0.0	15.4	22.2	40.0	14.3	19.5
5. Multiple	0.0	0.0	7.7	33.3	15.0	57.1	18.2
6. Unclassifiable	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (percent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	4	15	13	18	20	7	77

Source: Believers of Endrőd 1835. GySzIPL

In accordance with the above, the ratio of female household heads was continuously shifting from the nuclear to the complex household structure over time. In the latter cases, typically the widowed mothers were the heads of the households, so they continued to manage the household after their husbands deaths. The dynamics of change according to age groups can be seen in the case of both the male and female household heads. In Endrőd, too, younger household heads typically managed the simple (nuclear) households, while elders managed the complex households. It was less typical but did occur occasionally that the aged household head passed the management of the household on to one of his or her children.

³⁷ Ibid.

For the analysis of the distribution of household structures according to social (specifically, social, occupational, and ethnic) strata, I followed the category system derived from the source, with minor simplifications. This resulted in a total of nine social strata (groups). I analyzed the Roma separately, although they primarily belonged to the landless serf (*zsellér*) or farmhand (*béres*) categories.

Table 8. Household structures according to the social / occupational situation of the household heads, Endrőd, 1835

Household category	intellectuals	landowner farmers	artisans	small traders	homeowner landless serfs	landless serfs without own home	gardeners	farmhands	Roma	no data	Total
1. Solitaries	0.0	0.3	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	4
2. No family	42.9	0.3	1.7	0.0	0.0	0.5	0.0	11.1	0.0	0.0	7
3. Nuclear	28.6	38.1	88.3	100.0	62.8	93.0	84.2	88.9	63.6	33.3	624
4. Extended	28.6	17.2	6.7	0.0	19.2	5.6	7.9	0.0	18.2	22.2	131
5. Multiple	0.0	44.0	3.3	0.0	16.9	0.0	7.9	0.0	18.2	11.1	189
6. Unclassifiable	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	33.3	5
Total (percent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	7	302	60	5	266	215	76	9	11	9	960

Source: Believers of Endrőd 1835. GySzIPL

The results of Table 8 reflect the findings of previous microanalyses and macroanalyses. Typically farming serfs (or “farmers” to use the term used in the source) lived in this era in multiple-family households in larger proportions, although I should note that their majority in comparison with nuclear households is only relative. For intellectuals, living in households with no family (as seen from the examples above) was characteristic of the lifestyle arising from the nature of their occupations. Local intellectuals were not connected to the local society as regards their family relations. They formed a passing stratum, so to speak: the tenants of the parish house, including the parish priest and the chaplains, were replaced over time, and they typically did not integrate into the local society from the perspective of their family relations. While approximately 36 percent of homeowner landless serfs and Roma lived in more complex households, the ratio was much lower or zero for the others.

The distribution can be refined by performing the above classification also based on the data of the tax census of 1834–1835. Albeit there seemed to be several ways to classify tax censuses, all of them require a more comprehensive processing work encompassing multiple sources, which is currently not possible. Relying on the correlations of production volumes and the amount of taxes paid,³⁸ I evaluated the first nine, then the subsequent one hundred, two hundred and the other taxpayers based on tax values.

By connecting the tax censuses and the household heads, I managed to achieve a two-thirds identification rate. There are some taxpayers in the censuses from Csejt-pusztá: administratively, they belonged to Endrőd at this time, but Göndöcs did not record them in his parish family book. The identification was made quite difficult by the fact that in the case of some family names that are very common locally, it was impossible to identify the correct persons without a full analysis of the registers: Hornoks, Tímárs, and Uhrins lived in the settlement in great numbers, and even if the taxpayer was distinguished by an indication of the father's given name, this was not always adequate to remove all the doubts.

Table 9. Household structures according to the taxation category of the household heads, Endrőd, 1835

Household category	Taxpayer's serial number (tax amount)							Total
	1–9 (136–295)	10–99 (40–118)	100–199 (19–40)	200–299 (11–19)	300–399 (6–11)	400–499 (2–6)	500–539 (0.1–2)	
1. Solitaries	0.0	0.0	0.0	0.0	0.0	0.7	0.0	4
2. No family	0.0	0.0	1.2	0.0	1.1	0.0	0.0	7
3. Nuclear	25.0	31.6	42.7	56.0	63.6	70.5	76.8	624
4. Extended	0.0	12.3	9.8	15.5	15.9	13.0	8.6	131
5. Multiple	75.0	56.1	46.3	28.6	19.3	14.4	14.6	189
6. Unclassifiable	0.0	0.0	0.0	0.0	0.0	1.4	0.0	5
Total (percent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	960
N	8	57	82	84	88	146	151	616

Source: Believers of Endrőd 1835. GySzIPL; MNL BéML IV. A. 6. 1834–1835.

It should be noted for the interpretation of Table 9 that the taxpayers' serial number was the same in the case of equal tax amounts, and that is why each group of hundreds could contain more than one hundred taxpayers. However,

38 Kővér, *A tisztaeszlári dráma*, 111–18.

due to the two-thirds identification rate indicated above, I was not able to include everyone in my analysis. The value of the tax amount was determined by converting the kreutzer to forints and adding it to the forint value. The table indicates that the biggest taxpayers lived in multiple-family households in an outstandingly large proportion (75 percent), but the majority of household heads belonging to the first hundred taxpayer classes also lived and farmed in this form of cohabitation. István Hanyecz paid the most taxes in the tax year of 1834–1835: 237 Forints and 38 kreutzer. He is followed by military officer Imre Mészáros, then Mihály Gubucz. Hanyecz lived together with his wife, two sons, and daughters-in-law, as well as his grandchildren, his sibling, and their family, as well as a 16-year old servant boy. Imre Mészáros lived with his wife, children, and the family of one of his sons, as well as one manservant and one female servant. Mihály Gubucz lived and farmed together with his two sons and their families.

All taxpayers in the first tax class are landowners, while the second class also includes a gardener, Imre Vaszkó, and a homeowner landless serf (*zsellér*), Imre Farkas. Both lived in nuclear households. The number of landless taxpayers increases in the third class, there is a growing number of homeowner landless serfs and also artisans. So, in fact, the tax census indicates that a direct proportionality can be identified among those living from agriculture between the extent of their farming activity and living in households of complex families.

Table 10. The proportion of households employing external labor according to household structure categories, Endrőd, 1835

	Household structure categories						
	1	2	3	4	5	6	Total
Households employing external labor (percent)	0.0	57.1	15.9	27.5	34.4	0.0	21.3
N (total households)	4	7	624	131	189	5	960

Source: Believers of Endrőd 1835. GySzIPL

Households often employed external laborers for a shorter or longer period of time. Upon examining the household categories with families, one sees that the proportion of the households employing external labor increased together with the complexity of the household. These laborers, in most of the cases, were male or female servants. Gáspár Czinger, the town clerk, had two Lutheran housekeepers (though he belonged to a household with no families, while being in the second

tax category), while the nobleman and cantor Károly Balla, who lived with his wife, son, and mother, had not only a female servant but also a coachman. The average age of manservants was 17. That of the female servants was 15.

Table 11. Ratio of average household size and households employing external laborers according to the household head's age, Endrőd, 1835

	Household head's age					
	<25	25–34	35–44	45–54	55–64	64<
External laborer	15.7	19.7	20.2	19.3	22.4	38.1
General size of household	1.0	4.3	4.8	6.2	9.0	1.2

Source: Believers of Endrőd 1835. GySzIPL

Table 11 indicates that as the household head's age increased, external laborers became increasingly involved in the management of the household. The higher percentages appearing in the older age groups suggest that aging household heads tried to replace the younger members of the family having left the household this way.

Regarding the year 1836, *Historia Domus* of Endrőd recorded the conditions according to which Kornélia Stockhammer leased her estates in Endrőd to the village, as well as (and especially) the assets the church purchased. It also noted that Mátyás Habdza had a wooden cross erected on the outskirts of Endrőd, for which he established a foundation of 50 Forints.³⁹ Homeowner landless serf Mátyás Habdza died in July 1836, aged 75 according to the registers and 80 according to chaplain Göndöcs. The cause of death was *senectus*, which could be translated today as old age.⁴⁰ Whether it was he who had the cross erected as a form of thanksgiving for his long life (particular for the era) or his son Mátyás (if one accepts that middle-aged Mátyás Habdza was the son of the deceased, Göndöcs's error would be quite a big deviation, almost 10 years!) is impossible to determine based on this information: the *Historia Domus* did not record the month and the day. Either way, according to contemporary popular belief, erecting a cross could be justified by the fact that cholera, which had ravaged in Endrőd in the summer of 1836, had spared Mátyás Habdza's household.⁴¹

39 *Historia Domus: Historia Ecclesiae, et Parochiae Endrödinensis conscriptu Anno 1833*. GySzIPL, 41., 59.

40 Endrőd, Register of Deaths, 10 July 1836. GySzIPL

41 On the implications of cholera in Hungary, see: Máda, "Kolerajárványok," 2–3. 330–51; Dávid, "Az 1831. évi kolera," 293–312; Gecsei, *Cholera morbus*; Boa, "Kolerajárványok a 19. századi," 193–205; Tamás Faragó conducted an in-depth qualitative analysis for Maramureş County, see: Faragó, "Humanitárius

Göndöcs made, among others, the following entries at the end of the book: *Approx. 200 died in the Year 1831 A.D. in Cholera*, and a little below that: *in (Year) 1836 A.D. Again approx. 100 died of Cholera*. As I have mentioned, Göndöcs completed the family book with, among others, the names of those died in the 1836 cholera outbreak in the following year. Comparing this with the entries of the death register, 75 people died between July 6 and August 21, 1836. In the parish family book, Göndöcs added cholera as the cause of death subsequently for 60 people. Collating the people's data found in the register and the family book, Göndöcs indicated that a person died of cholera in 10 cases where this is not indicated in the register, and the register mentions cholera as the cause of death in a further 26 cases where it is not added to the family book. This means that a total of 86 people are known to have died of cholera, of whom 71 could be connected to the household register.

Table 12. Ratio of households with a member who died of cholera according to household structure categories, Endrőd, 1835

	Nuclear	Extended	Multiple	Total
Households with a member who died of cholera (percent)	4.8	6.9	10.1	6.1
N (total households)	624	131	189	944

Source: Believers of Endrőd 1835, Register of Deaths of Endrőd, 1835–1836. GySzIPL

Our sample makes it possible to compare the ratio of households with a member who died of cholera and the composition of the households. Cohabitation, which meant frequent contact among multiple people, constituted a higher risk factor for the spread of diseases, as reflected by the values of Table 12. Those who died of cholera in the families were in larger proportions women (54.7 percent) than men (46.3 percent). A significant group of the deceased included those aged 1–3 and 45–65.

In this paper, I conducted a closer examination of a geographical area hitherto unexplored in terms of household structure analyses, namely the settlement of Endrőd in Békés County. It was useful to process the previously dormant parish family book to get a better understanding not only of the geographical space, but

katasztrófák,” 19–78. For its implications regarding Békés County, see Magyary-Kossa, *Magyar orvosi emlékek*, 114; Dávid, “Az 1831. évi kolera,” 293–312; Máday, “Hat nagy kolerajárvány,” 68.

also of the period after 1828. I was able to use a complete source which is rather rare from the 1830s, or even the immediately preceding or subsequent decades, which could be used well both in terms of the richness and (with some reservations) the quality of the data. In summary, the results correspond nicely to the findings of earlier macroanalyses and microanalyses, and therefore the main conclusions can be extended to this region. My findings confirm the dominance of nuclear households. However, I was able to point out that due to the relatively higher proportion of complex households, the village has an interim character, so we may have managed to record a state in the ongoing process of the simplification of households. We can regard as a characteristic specific to this settlement that older household heads employed an external person in significantly larger proportions than the younger generations, which can be explained by the departure of the younger members of the family and thus can also be interpreted as a manifestation of disintegration. Furthermore, the analysis according to tax classes refines the uniform belief that typically peasant families lived in multiple-family household structures. The ratio of this type is much higher where the household head paid more taxes. The health risk arising from the cohabitation of multiple people is also worth noting, the real threat of which is reflected by the relevant difference in the number of deaths from cholera in each household structure.

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A Spatial Analysis of the Socio-economic Structure of Bonyhád Based on the Census of 1869*

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In this study, we examine the social structure of Bonyhád, a multi-ethnic and multi-confessional Transdanubian town in Tolna County. We analyze the individual level data of the census of 1869 and offer a visual rendering of the results on a historical map of the town. The surviving material of this inventory covers the entire population of Bonyhád, providing a detailed picture about 6,036 inhabitants. Records include the names, sex, birth year and place, marital status, occupation and occupational status, literacy, residence, and whether the person in question was present or absent at the time the census was taken. As in Tolna County a cadastral survey was finished in 1866, a contemporary cadastral map is also available. Combined, these sources provide rich information about the spatial structure of the town, because the coordinates are also available using the mapire.eu website, which is overlaid on the OpenStreetMap and the HERE satellite base map. One can use the degrees of longitude and latitude of each household and study the census and the map together in R, a free software environment for statistical computation and graphics.

Bonyhád was the economic center of a small region and had a position of strategic importance in the control of local trade routes. After the end of the period of Ottoman occupation, German settlers arrived and lived alongside the original Hungarian and Serb population. Later, a significant Jewish community settled in the area in the eighteenth and nineteenth centuries. The denominational composition of the population, according to the census of 1869, was 41 percent Roman Catholics, 31 percent Lutherans, 5 percent Calvinist and 23 percent Jewish. The analysis of the census-based information and the visual rendering of the results on the cadastral map explain valuable details about the socio-economic structure of Bonyhád, including the question of segregation, which would be difficult to demonstrate on the basis of qualitative sources, as is typically the case with historical research.

Keywords: socio-economic structure, spatial pattern, R software, segregation, nineteenth c. censuses

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Introduction

Bonyhád acquired central functions in the Völgység, which can be described as an agricultural region in Tolna County. The settlement started to develop dynamically in the eighteenth century due to its role as a “geographical gate.” A trade route led through it, and two bridges made it possible for travelers to cross the valley. According to the secondary literature on the local history of the area, this increasingly urbanized town evolved into an industrial-commercial center, which became a market town in 1782 with the right to hold four fairs per year. In the 1850s, Bonyhád turned into the administrative center of the executive unit, called Völgység (which essentially means valley region).¹ In the work of Vera Bácskai and Lajos Nagy on the urban structure of Hungary, Bonyhád was introduced as a settlement with local significance. Its fairs were mainly visited by its own inhabitants, as they did not attract people from a larger range.² This essay also emphasizes the role of local merchants in arranging trade through Tolna County.³

After the Ottoman Era, the town was inhabited by Calvinist Hungarians and Orthodox Serbs, but a few years later, the settlement was considered uninhabited territory. Large-scale German settlement started in the early eighteenth century. It enjoyed the support of the state and the secular and clerical landowners, who sought to repopulate their lands. As a result of this process, Bonyhád evolved into a town with a Roman Catholic German majority.⁴ While in 1715, records indicate only seven Hungarian and nine Serb families were counted, in 1728 42 Hungarian and 15 German families were paying taxes, and in 1748, these figures had shifted to 11 Hungarian and 29 German families.⁵ Until the middle of the following century, the number of inhabitants steadily increased. In 1785, there were 2,999 people living in Bonyhád. By 1828, this number had risen to 4,639, and the census in 1850 indicated 6,524 inhabitants and the one in 1857 indicated 6,371.⁶

The German settlers were not all Roman Catholic. A large number of Lutherans also arrived. German Calvinists from Hessen settled in Bonyhád as they

1 Szóts, *A völgységi nemzetiségi-etnikai csoportok együttélése*, 196.

2 Bácskai and Nagy, “Piackörzetek,” 49, 222.

3 Ibid., 252.

4 Solymár, “Bonyhád – hajdan Bonyha,” 42.

5 Várady, “Bonyhád a törökkor végétől,” 88.

6 *Magyarország történeti statisztikai helynévtára*, 42.

did in other towns in Tolna County, but they mostly assimilated into the Lutheran majority.⁷ Hungarians were Roman Catholics and Calvinists. In the eighteenth century, the settlement of Jews in the town began, a process which peaked in the 1780s, when there were more than 400 Jewish inhabitants in Bonyhád.⁸ As a result of the abovementioned denominational mix, five denominations and four churches were found in Bonyhád in the period in question. By the beginning of the nineteenth century, alongside the Roman Catholics, Calvinists and Lutherans were also building churches in the town, and a synagogue was also constructed.⁹

Sources and Methods

The analysis was based on the individual sheets of census 1869,¹⁰ which contain data concerning people living together in the same households. The fact that this source is even extant is exceptional, as the original individual sheets survived only in the case of a few settlements of present-day Hungary.¹¹ Bonyhád offered a good research opportunity given the survival of these sources, and the population was heterogeneous from the religious and socio-economic perspective.

In our analysis, we examined and combined housing statistics and individual level data of inhabitants from the census material and projected the results on the nineteenth-century map of Bonyhád. In the first place, we concentrate on the denominational and occupational distribution of the population and the connection between these two variables. Our aim in this study is empirically to test some of the well-known relations between religious belonging and occupations (for example Jews were mainly occupied as merchants)¹² and to compare results of previous studies to the data regarding Bonyhád. While there was no religious pattern or concentration of inhabitants in Sátorajáújhely¹³ besides that of the

7 Schmidt, *Német telepések bevándorlása*, 81.

8 Várady, “Bonyhád a törökkor végétől,” 88.

9 Szita, *A lutheránus németiség bevándorlása*, 7–8. Fényes, *Magyarország geographiai szótára*, Bonyhád, 238.

10 TML V. 709./c

11 Péter Őri and Levente Pakot introduced the preservation of Hungarian individual-level materials of the census of 1869, see Őri and Pakot, “Háztartásszerkezet.” The following studies analysed these sources on the micro-level: Torna County: Pozsgai, “Családok és háztartások,” Magyaróvár: Horváth, “Város a városban;” Kiskunhalas: Őri, “Kiskunhalas népessége;” Sátorajáújhely: Demeter and Bagdi, *A társadalom differenciáltsága*; Mohácsi: Gyimesi, “Mohácsi háztartás-rekonstrukció.”

12 Katus, *Modern Magyarország*, 158, 175.

13 Where a similar investigation was carried out for the census sheets of 1869.

Jewish population, we can assume that the results will be different in the case of a resettled community.¹⁴

According to the census, of the altogether 6036 inhabitants of Bonyhád in 1869, 2,961 were males and 3,075 were females, which means a sex ratio of 1,038 females to 1,000 males. The census registered housing statistics on a separate sheet (location, number of rooms and outbuildings, whether the building served as a place to live only or also as a shop, etc.), as it did in the case of domestic animals. On the middle sheet, the name, sex, year and place of birth, religion, marital status, occupation and occupational status, residence, presence or absence, and literacy of the inhabitants were given. Comments involving factors like e.g. illness, military service, place of absence, etc. were written in the last column. In cases of multiple households sharing the same house, a vertical line separated the *Wohnparteien*.¹⁵

The numbering of the houses was continuous in the settlement, so the figures started from one and increased to the number of the last house of the town, independently of the streets. 1306 *Wohnparteien* lived in Bonyhád in 763 houses, which means 1.7 households per houses. This figure is higher than the average for Pest County (1.3–1.4).¹⁶ The average size of households was 4.6 persons, which correspond to the national average at the time.¹⁷

In the course of our investigation, we applied five broader categories of occupations¹⁸ in order to increase the efficiency of analysis. We employed the method introduced by Péter Óri and Levente Pakot, who created the following socio-professional groups based on HISCLASS:¹⁹ (1) Groups of higher status (non-manual), (2) Craftsmen (artisans and merchants), (3) Farmers (landowners), (4) Groups of lower status (unskilled) and (5) Other.²⁰

14 Demeter and Bagdi, *A társadalom differenciáltsága*, 17.

15 The problematics of *Wohnparteien* is inevitable for researchers who are working with census materials. The expression was transferred to the Hungarian vocabulary from the German instructions for the census in 1850. The differentiation of the notions of *Wohnpartei* and households led to difficulties and differences in interpretation because of varying practices used by the census takers. Detailed explanation of this topic: Óri and Pakot Residence patterns, 14–15; Óri and Pakot, “Háztartásszerkezet,” 169–71. In our analysis, we use the notion of *Wohnparteien* in the sense of households adjusting to the practices of census takers.

16 Óri, “Család és házasodás,” 75. The difference can be caused by the abovementioned diversity of the practices of census takers, but in all likelihood it shows real disparity.

17 The average size of households in Pest County (1869): 4.65 people (Óri, “Család és házasodás,” 75.). In Mohács (1869): 4.5–4.6 people (Gyimesi, “Mohácsi háztartás-rekonstrukció,” 12.). In Sátoraljaújhely (1869): 4.6 people (Demeter and Bagdi, *A társadalom differenciáltsága*, 13, 60.). Levente Pakot found higher values in the Székely Land: 5.4 people per households (Pakot, “Családok és háztartások,” 272).

18 Almost two hundred different occupations were identified in this column.

19 Van Leeuwen and Maas, *HISCLASS*.

20 Óri and Pakot, “Residence patterns,” 17.

We do not endeavor or claim to offer any detailed examination of demographic characteristics like marital customs or the number of children in a family without the use of parish registers. We cannot arrive at reliable conclusions concerning demographic phenomena exclusively on the basis of census data, because census data provide detailed information on the population on a particular date. We know how many people lived in the town on December 31, 1869, but we have no information concerning the total number of children who were born in the family or the number of those who left their homes. Likewise, we do not know how many children were born after this day in the same family. The census material makes possible the analysis of the spatial pattern of the distribution of the household-types using Laslett's categories.²¹ Laslett's method introduced categories based on the relationships among the household-members, not the number of the inhabitants, so the uncertainty caused by the lack of all the life events can be solved by drawing on his work. Using the census data, we also can analyze the spatial distribution of the age-groups, but neither the age-distribution nor the Laslett classification showed characteristic spatial arrangement, so we decided to exclude these aspects in what follows.

We also examined household members who were not blood-related to the family, like servants or apprentices, and we compared them to their employers from the perspective of their religion or place of birth. Although there is a column for residence in the census sheet, in our opinion it's not suitable to distinguish so-called foreigners from the resident population, because this distinction only refers to the period during which these people lived in the same place, not their origin (place of birth). The numbers of these columns confirm our assumption. 87 percent of the population belonged to the resident category according to which division, but only 75 percent had been born in Bonyhád.²²

In the second half of the nineteenth century cadastral surveys were carried out in the Crownlands of Hungary, beginning in 1856 in the western part of the country and heading eastward. The survey of Tolna county was completed in the mid-1860s.²³ Thus, we have a cadastral map from Bonyhád which is contemporary with the census.²⁴ A historical map includes valuable information

21 Laslett, *Introduction*, 1–89.

22 “filling in the column of ‘citizenship’ notice, according to which everyone who has been settled in the community for a year now and has lived there permanently and has no residence in another village at the time of the census is a resident.” *Népszámlálás 1869*. 4.

23 Török, “A kataszteri részletes felmérés,” 11.

24 Biszak and Timar, *Tolna megye*.

about the geographical situation of the town, but on the homepage of Mapire digitalized maps are available with coordinates. The webpage combined the historical maps with OpenStreetMap and Google Maps.²⁵

By analyzing the spatial structure based on census data, we aimed to use free and/or open source software solutions that are also capable of performing transformations of raw data and proper statistical analysis. This approach makes this research much more reproducible and could help researchers conduct similar studies in the future.²⁶ Steps followed in creating the maps are to be found at the end of our study in the annex.

Spatial Distribution

Housing statistics

Data from the census enable us to investigate housing circumstances of the inhabitants of Bonyhád. The differences are best shown by the population density (mean number of residents in a room). This value is 2.64 people/room on average in Bonyhád according to the 1869 census. However, there are differences among the houses in this respect, as shown on figure 1.²⁷

As the map shows, most of the houses had a population density around the mean of 2.64, but there are some houses where more than four inhabitants shared one room. In the southern and southeastern parts of the town, we see buildings with low population densities. These bigger houses were owned by the Perczels and other landowning nobles. According to the map, in several cases, there were parks or large gardens on these properties behind the house. Of the 763 houses of the settlement, only 20 were two-story houses. The largest number of rooms was 23 in one house, but there were 20 households sharing the edifice, so number of rooms alone does not mean that the inhabitants were wealthy. That is why we decided to put the population density on the map, and based on the result, we can conclude that Bonyhád was more an agricultural settlement than urban.

25 <https://mapire.eu/hu/>

26 Demeter and Bagdi did a similar analysis of the spatial patterns of settlement in Sátoraljaújhely. Our study attempts to reflect their aims. Demeter and Bagdi, *A társadalom deifferenciáltsága*.

27 The same indicator in Sátoraljaújhely in 1869 is 2.9 people/room (1.5 room/family), which means that in Bonyhád less residents were living in one room on average. Demeter and Bagdi, *A társadalom deifferenciáltsága*, 19.

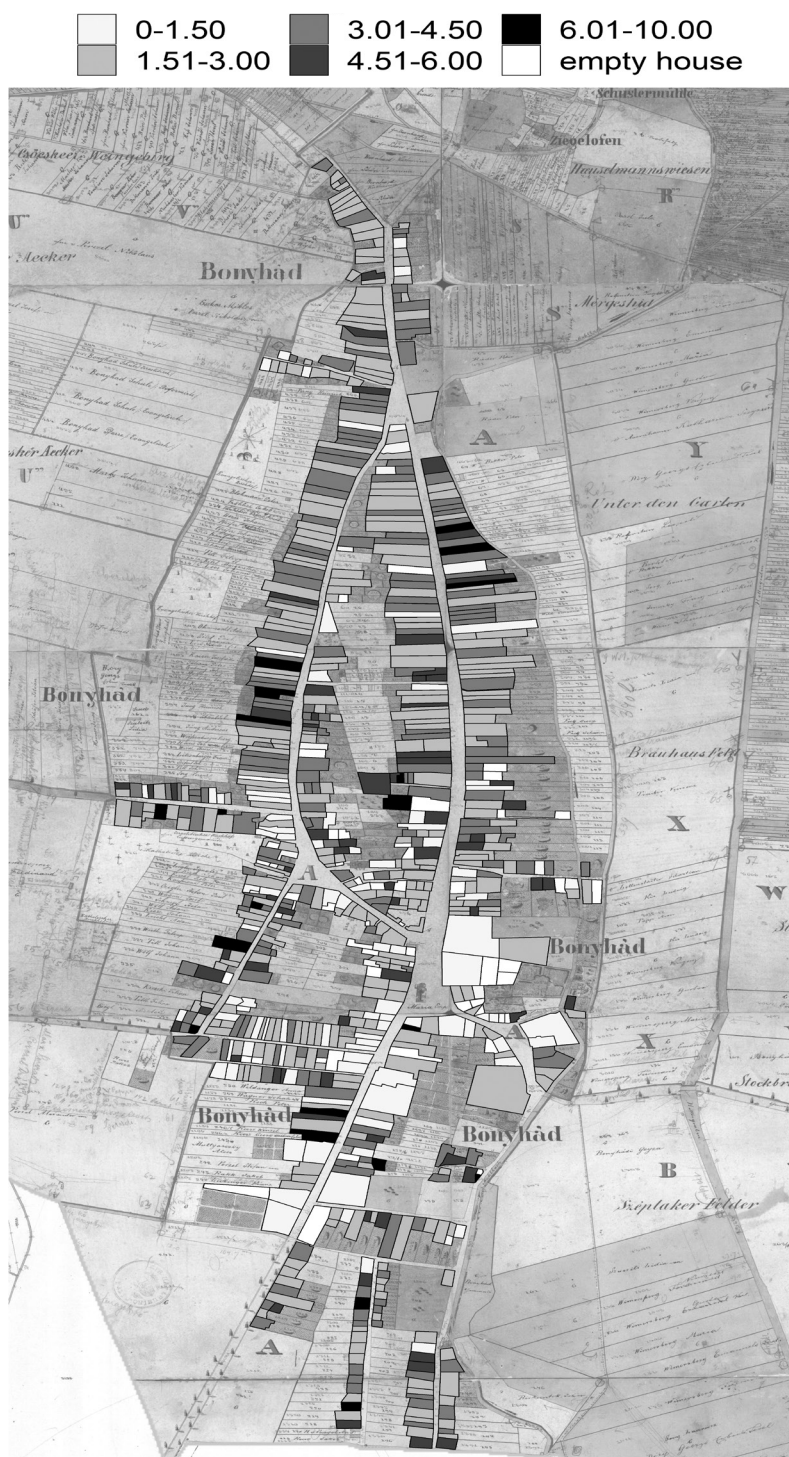


Figure 1. Population density (people/room), Bonyhád, 1869

Spatial distribution of denomination

Based on census data, Bonyhád had 2,463 Roman Catholic (40.8 percent), 1,890 Lutheran (31.3 percent), 1,359 Jewish (22.5 percent), 317 Calvinist (5.3 percent), and seven Orthodox (0.1 percent) inhabitants in 1869. In the literature, we find statements about the spatial patterns which agree in part with these figures. One source indicates that Hungarians settled down in the southern part of the town, while Germans chose the northern part.²⁸ Others call the eastern line of houses the “Hungarian Bonyhád,” while the western line of houses was referred to as “German Bonyhád.”²⁹ These two approaches were synthesized by Wilhelm Knabel, according to whom the two landholders of Bonyhád (baron Schilson and Ferenc Kun) split the settlement in 1729. To south and west of the main square, the “German village” developed, with the tavern, butchery, and three mills which belonged to the baron. Ferenc Kun gained the northern and eastern part of the settlement, the so-called “Hungarian village,” with the wine shop and the brewery. The part of the town inhabited primarily by German speakers tended to prefer Roman Catholic settlers, while the Hungarian-speaking community preferred Calvinists. Several Lutherans moved into the Hungarian part of the town from the surrounding settlements.³⁰

This statement is underpinned by the map showing the spatial distribution of denominations. Protestants are found in the northern part of the settlement, and Roman Catholics populated the south. Religion seems to have had a stronger effect on spatial patterns than nationality. Many sources also state that Lutheran and Calvinist settlers did not live in the German village, and both villages had inhabitants belonging to both nationalities.³¹ The contention that denominational belonging was the most important single factor in determining settlement patterns within the town is also supported by the placement of cemeteries and churches, which reflects the spatial distribution observable on our map. This confirms the sources cited and also shows that the religiously differentiated structure which evolved at the time of resettlement remained stable one century later.

28 Kolta, “A közigazgatás változásai Bonyhádon,” 15.

29 Solymár, “A történeti Völgység,” 20.

30 Knabel, *Geschichte Bonyháds*, 13.

31 Ibid., 14. Settlement according to denomination: Solymár, “A történeti Völgység,” 21. Principle of one village – one religion: Schmidt, *Német telepések*, 49.

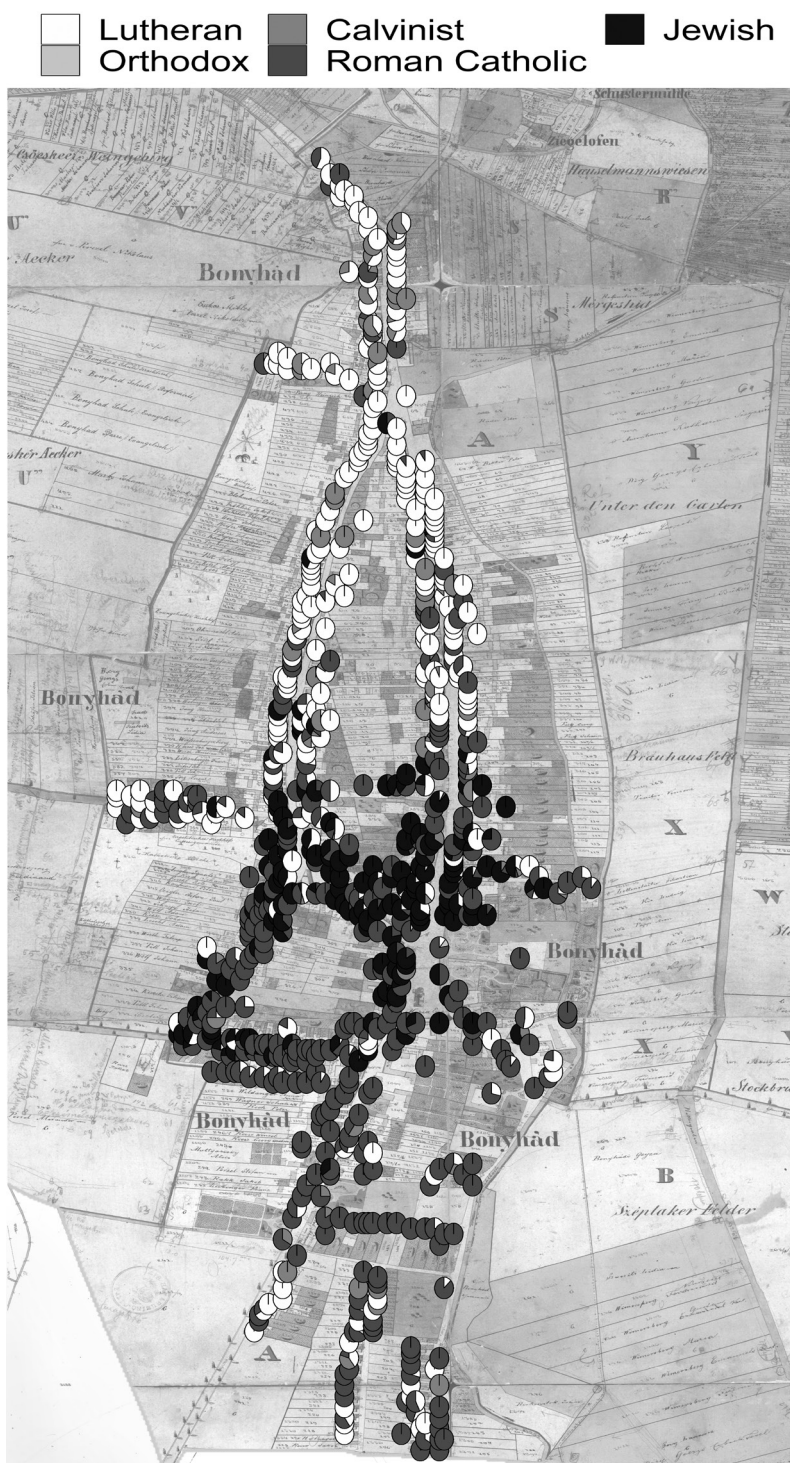


Figure 2. Religion of the population, Bonyhád, 1869

Jews formed their own closed community in the city center between the German and Hungarian villages. Their activities turned Bonyhád into the trading center of the region in this era.³²

Spatial distribution of occupation

The census registered the occupation and occupational status of the inhabitants, and on the basis of this, we categorized the inhabitants of the settlement into the abovementioned five groups. These columns are usually left blank in the cases of women and small children, but data were available concerning household heads, older children, and other residents. Thanks to this data, we know the sources of income for 2,155 inhabitants of Bonyhád. Broken down into occupational groups, 99 of these people belonged to a stratum which had a higher status (they performed non-manual labor), 462 were artisans and merchants, 228 were landowners, and 1,302 were members of lower strata (i.e. unskilled laborers). 64 people couldn't be categorized into the abovementioned classes (e.g. almsmen).

As over half of the inhabitants belonged to the unskilled category, which is in line with the agricultural characteristics of Bonyhád, we decided to create two subcategories. One of them includes unskilled agricultural workers only (e.g. unskilled farm workers, farm servants), while the other consists of unskilled workers who worked together with artisans (e.g. apprentices, journeymen) and other servants and maids.

As can be observed on the map, most of the merchants and artisans lived in the center of the settlement, while the northern and southern parts of the settlement were populated by landowners, especially the Protestant parts. Using our subcategories, we acquire a more detailed picture of the spatial pattern of the unskilled stratum: the distribution of unskilled workers reflects that of the artisans and landowners (agricultural unskilled workers lived outside the center of town, while apprentices and journeymen in the center). The inhabitants who did non-manual labor and therefore belonged to a higher social stratum also tended to live in the middle of the settlement.

The spatial distribution of different occupations is quite different. In some cases, artisans with the same profession lived throughout the settlement (e.g. masons), while most of the merchants were concentrated in the center, as were tailors. Weavers were only found on the periphery. Innkeepers and tavern

32 Knabel, *Geschichte Bonyháds*, 19.

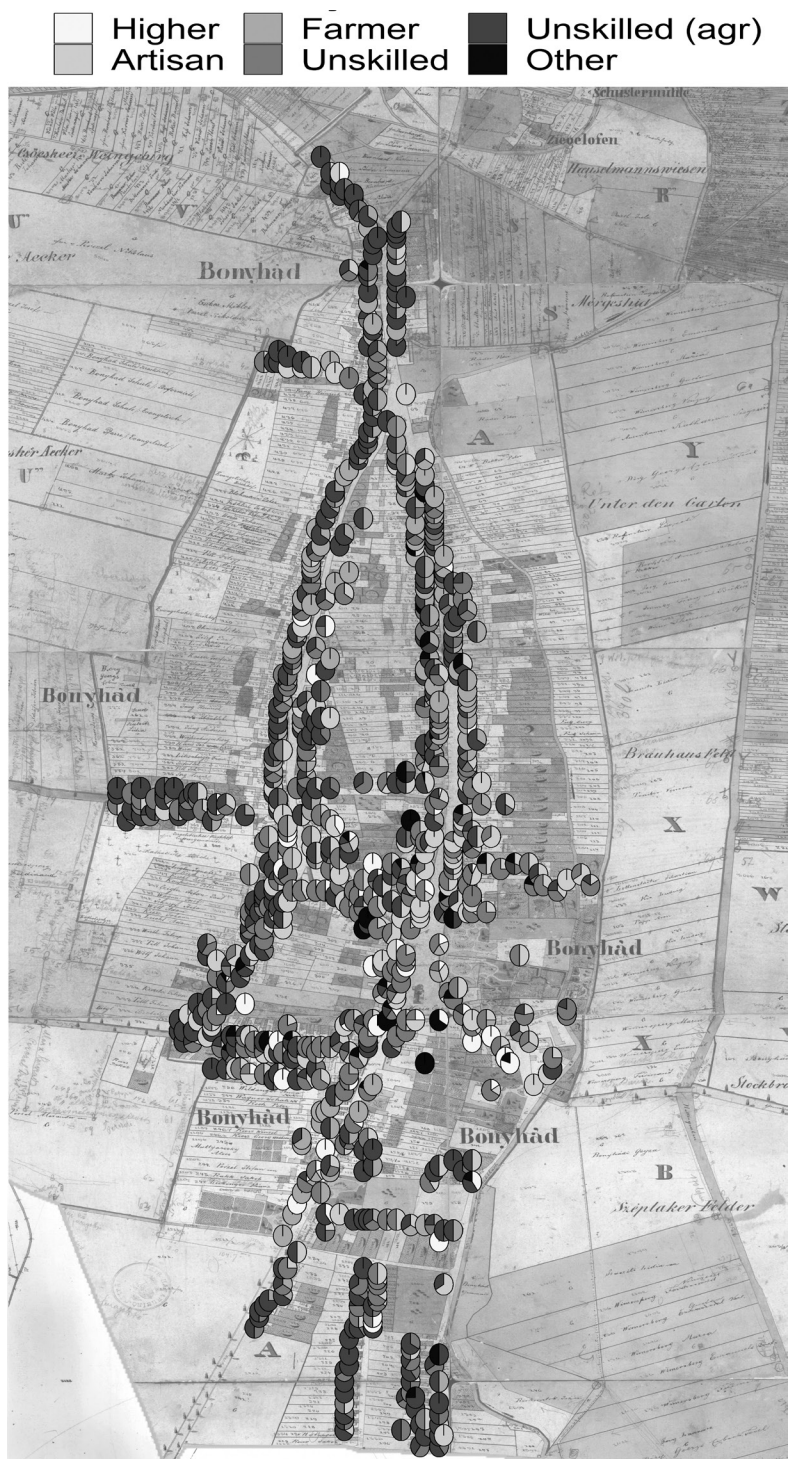


Figure 3. Occupation of the population, Bonyhád, 1869

owners opened shops both in the center and next to commercial routes in the southeastern area.

Occupation and religion

The settlement pattern according to denominational belonging shows similarities to that of occupation shown on the previous maps. We further analyzed this relationship between occupational class and denomination (leaving out Orthodox inhabitants due to their small number, we had information concerning the denominational belonging of 2,150 residents of the town). The resulting cross table shows a significant association between the two variables ($p < 0.001$).

Table 1 shows the distribution of occupational groups within each of the four big denominations. The higher status group comprised 4.5 percent of the total population. This figure is somewhat less among Lutherans and higher in the case of Calvinists and Roman Catholics. The proportion of artisans is clearly highest among inhabitants belonging to the Jewish community (around 40 percent). It is close to 20 percent in the case of Roman Catholics and remains below 15 percent in the case of Protestants. Farmers made up almost 20 percent of the Lutheran and 15 percent of the Calvinist communities, while the ratio is below nine percent for Roman Catholics and under one percent in case of Jewish inhabitants. As we have already seen, the largest group was comprised of unskilled workers. Their proportion of the population remained under 50 percent in the case of Jews, but for people belonging to Christian denominations, it is between 60 and 66 percent. The last (Other) group has a low percentage of unskilled laborers, with minor differences between denominations.

Table 1. Distribution of occupational groups within denominations, Bonyhád, 1869

	Lutheran (percent)	Calvinist (percent)	Roman Catholic (percent)	Jewish (percent)	Total (percent)
Higher	1.21	6.62	6.54	4.50	4.51
Artisan	14.42	11.03	19.61	40.05	21.49
Farmer	18.82	14.70	8.68	0.71	10.60
Unskilled laborer	64.34	66.18	61.74	49.53	60.42
Other	1.21	1.47	3.43	5.21	2.98
Total	100.00	100.00	100.00	100.00	100.00

Nearly 200 different occupations are mentioned in the census data. Most professions had only a few representatives in the settlement. However, there are quite different occupational patterns in the case of the four denominations. We conducted a correspondence analysis which revealed that the main difference was between members of the Jewish community and people who belonged to the three Christian denominations. Most of the professions were avoided by Jews, while some were dominated by them. In some cases, however, the denominational distribution reflects the proportions of the population. Examples of each case are presented in Table 2.

Table 2. Denominational patterns in selected occupations,
Bonyhád, 1869

	Lutheran	Calvinist	Roman Catholic	Jewish	Total
Carpenter	23	4	31	0	58
Furrier	0	0	0	20	20
Mason	11	3	26	0	40
Merchant	0	0	17	60	77
Shoemaker	1	9	4	0	14
Tailor	26	3	41	16	84
Tanner	24	3	42	6	73
Weaver	20	4	15	0	39

The relationship between denominations and occupations in itself is not novel, but the spatial analysis in this case of a resettled eighteenth-century town raises several questions. Sources and the map of the spatial pattern of denominations both underpin that the eighteenth-century separation of religions still strongly affected structure of society in the nineteenth century.

The relationship between Jews living in the settlement center and the concentration of artisans here seems obvious. For a long time, Jews were not allowed to own land.³³ It is easy to see why they settled in the dense central parts of the town, where they could be more successful. But is the relationship between Protestants (in this case mainly Lutherans) and the class of farmers also that univocal? One simple explanation might be that the main goal of

33 Jews only began to be permitted to settle freely, engage in a trade freely, and purchase land in the 1840s. Katus, *Modern Magyarország*, 107.

recruiting German settlers was to find farmers to (re)cultivate abandoned lands. However, sources and contemporary laws show evidence that allowances were given not only for agricultural workers, but also to artisans.³⁴ New settlers arriving to Bonyhád were not only agricultural workers but also artisans. It seems clear that the settlement patterns in the eighteenth century were based on denomination, but the question remains: did this also cause the occupational differences, or did inhabitants adapt to this spatial structure and chose their occupation accordingly? In other words, the direction of the possible causal relationship between denomination and occupation is still unclear and requires further investigation.

Non-relatives – cooperation and separation

According to the census data, the denominations of servants and maids corresponded to the denomination of their employers. We also analyzed the birthplace of this group of non-relatives living together with a family, which was the most mobile stratum of the population of Bonyhád. Regarding the presence/absence columns, 498 people were absent (five people only temporarily), who were listed mainly as children in the households. Their occupations were not given in every case, but otherwise they were servants, maids, apprentices, journeymen, or people serving in the military, which demonstrates the extent of the mobility of these groups.

Table 3 presents the denominational or religious belonging of servants and maids alongside the denominational or religious belonging of their employers.

34 The laws of Charles III encouraging resettlement with “1723. évi CIII. törvénycikk az ország benépesítéséről” [law of peopling the country] (promising 6 years of tax exemption for every free person). In the same year, another law arranged for the “support for the arrival of various craftsmen to the country” (1723. évi CXVII. törvénycikk), promising 15 years of tax exemption for them. Landlords also wanted to find workers to work on their estates, so in the early eighteenth century, they began to offer three years of tax exempt-status for the arable lands and mills and six years for the vineyards. Szilágyi, “Újratelepülő Tolna,” 35.



Figure 4. Spatial distribution of certain artisans, Bonyhád, 1869

Table 3. Religion or denomination of servants and their employers, Bonyhád, 1869

	Denominational belongings of heads of households (number)	Lutheran (18)	Calvinist (7)	Roman Catholic (44)	Jewish (37)	Total
Servant's denominational belonging	Lutheran	15	2	10	5	32
	Calvinist	1	1	6	3	11
	Roman Catholic	4	8	54	18	84
	Jewish	0	0	0	13	13
	Total	20	11	70	39	140
	Born in Bonyhád	5	1	11	7	24

Of these 140 servants, 28 were males and 112 were females. Therefore, in all cases the number of females was always higher than the number of males. All of the servants employed by Jewish households were female, including 13 Jewish maids. Jewish servants only served in Jewish households. We can observe a more open pattern among Roman Catholics and Protestants, and not only in the case of servants and maids, but also in the case of the craftsman-apprentice relationship (Table 4).³⁵

Table 4. Religion of apprentices and their employers, Bonyhád, 1869

	Denominational belonging of heads of households (number)	Lutheran (28)	Calvinist (1)	Roman Catholic (42)	Jewish (19)	Total
Apprentice's denominational belonging	Lutheran	12	0	10	0	22
	Calvinist	1	0	3	0	4
	Roman Catholic	24	2	67	5	98
	Jewish	0	0	0	18	18
	Total	37	2	80	23	142
	Born in Bonyhád	3	1	7	4	15

On average, Roman Catholic heads of household employed the most servants (77 servants for 44 households) and apprentices (80 apprentices for 42 craftsmen). The most frequent number of servants/apprentices was one, but

³⁵ The isolation among denominational and occupational groups is observed in the case of marital customs. Roman Catholics and people belonging to the Orthodox Church were more closed in this respect than Lutherans and Calvinists. Marriage between Catholics and Jews was not allowed until the end of the nineteenth century. Lippényi et al., "Social status," 8.

there were some exceptions.³⁶ In Tables 2 and 3, the number of servants and apprentices who were born in Bonyhád is also presented. In all cases, we can see that the proportion of local born employees is quite low. This suggests that mobility was relatively high among members of this group.³⁷

Summary

Based on the census of 1869, we examined the socio-economic spatial structure of the agricultural settlement of Bonyhád using the cadastral map from the 1860s as a visualization tool. After a short introduction of housing data in general, the study focused on settlement patterns according to denomination and occupation. We verified that resettlement still had a strong influence on the denominational structure of the community in the nineteenth century. We demonstrated a statistically significant relationship between religion and occupation. Further analysis was completed about the denomination of non-relatives and households living together. As a result, we offered statistic evidence in support of contentions found in qualitative secondary literature and earlier studies according to which Jewish society in the town was much more closed than the Christian denominations. They only worked in houses belonging to people of their own religion and they lived in a well-separable place in the town center. Spatial patterns were investigated for every profession and some of them were represented on maps. In some cases, a particular occupation seemed to predominate among the community which belonged to a particular denomination, while other occupations seemed to have been less connected to a given religion or denomination. The study also indicated the complexity of the society under study and concluded that resettlement was an important factor

36 The results of analysis of employees partly correspond to the conclusions in case of Sátoraljaújhely (e.g. Jewish servants/maids served in Jewish households), but some issue was different according to the data of Bonyhád. The phenomenon of Calvinists preferring employees from the same denomination was not confirmed by our data, but the reason behind this could be the small number of Calvinists in Bonyhád. Demeter and Bagdi, *A társadalom differenciáltsága*, 21.

37 The employees emerged from younger age-groups than the average (the mean age of the total population in Bonyhád was 26.75, while in the case of servants it was 25.84 years and in the case of apprentices it was 25.91 years. Most of them were single, which fits the lifecycle-servant part of Hajnal's theory (Hajnal, "European marriage patterns"). Hajnal thought this was a West European phenomenon, but more research has shown that this statement should perhaps be reconsidered. This topic is discussed in Faragó, "Különböző háztartás-keletkezési rendszerek."

which influenced the socio-economic and denominational structure of the town even a century later.

Our results underpin the strong relationship between denomination and occupation and settlement patterns within the town. However, the direction of the causation needs further investigation, as an important question remains unanswered: did the settlement patterns influence occupation, and if so, to what extent, or did settlers find their homes based on their profession.

Annex

Four steps were taken to complete the maps presented later in our paper:

1. based on the historical map, polygons were defined which represent houses, and they were used to connect data concerning inhabitants and their houses to the map;
2. the file containing the historical map was read into R and GPS coordinates were added;
3. polygons were read into R;
4. statistical calculations were made and the final maps were created based on previous results.

The first step was done in Inkscape,³⁸ a free open source vector graphics editor. Inkscape uses the open standard SVG (Scalable Vector Graphics), which enables us to create small but scalable graphics. All other steps were performed in R,³⁹ which is a free and open source software environment for statistical computing and graphics.⁴⁰ The open source status makes it possible for users to contribute their own code to a central repository (CRAN). These contributions are called packages, and the number of packages grows rapidly. There are over 13,000 packages at the moment, and we use some of them for data manipulation and to create maps.

The resolution of the base map is 3080 x 6925 pixels. We read the base map into Inkscape and then used the appropriate tool to draw linear polygons on another layer to represent houses. The so-called Draw Bezier curves and straight lines tool seemed to be the best choice, as it is able to snap nodes to polygons which have already been defined, which means we could easily draw polygons which are perfectly matching and which cover the entire map. One property

38 <https://inkscape.org>

39 <https://www.r-project.org>

40 R Development Core Team, 2008.

of all objects in Inkscape is their ID, where we used the house numbers of the census to make it easier to connect polygons to census data later on. Filling the polygons which had already been drawn with a somewhat transparent color makes the manual process even simpler.



Figure 5. Manually creating polygons in Inkscape

As a result, we created a vector graphic map of nineteenth-century Bonyhád which is zoomable, small, and easy to read. There are several format options available to store polygon data. We chose the so-called absolute coordinates (instead of relative coordinates), which are easier to process in R as an XML file. Once we finished drawing all the polygons, we could remove the base map and save the final vector graphic map of the settlement.

In the R environment, there are several plotting packages. We used `ggplot2`⁴¹ and its extension for maps called `ggmap`.⁴² This latter package is applied to create visual renderings of spatial data on top of static maps from various online sources (Google Maps, OpenStreetMap, Stamen Maps or CloudMade). The package assumes that one is plotting on a map which comes from the abovementioned online sources. However, we can convert our png file to a `ggmap` object by adding the bounding box data (lower left and upper right corner GPS coordinates). As a result of several lines of code in R, we now have a high resolution `ggmap` object

41 Wickham, `ggplot2`.

42 Kahle and Wickham, `ggmap`.

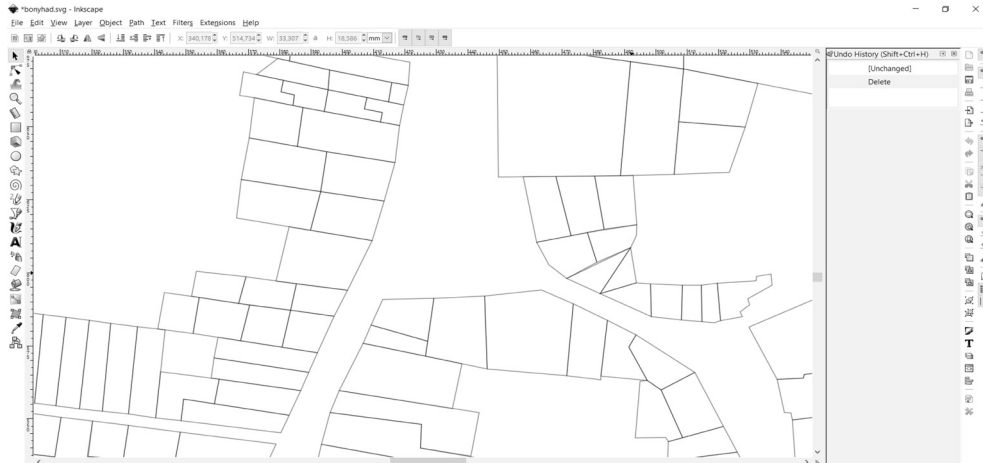


Figure 6. Main square of Bonyhád on the final vector graphic map

which contains a raster and its place in the GPS coordinate system. As this is the basis of all the maps, we saved this into the native R datafile (RDa).

The next step was to read and convert the polygon dataset in R. As already mentioned, the svg file we created in the first step is basically an xml file which contains all polygons in nodes called path. All paths have multiple attributes, but we only need the ones named “d,” which contain the coordinates (in pixels), and the ones named “id,” which contain the house numbers. Reading and converting polygons to the GPS coordinate system enables us to produce different types of maps. On one side, we can draw the polygons with different colors representing various characteristics of the given house (e.g. population density, meaning people/room). On the other side, in several cases we plotted characteristics of the inhabitants of a given house. For instance, we put (equal size) pie charts in the center of the polygon (this approach seemed appropriate as the religion or denominational belonging of the inhabitants of a given building was usually not the same). We drew this type of map using the scatterpie package.⁴³

43 Guangchuang, scatterpie.

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The Notion of Space on Railway Maps of the Habsburg Monarchy / Austria–Hungary

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In this article, the notion of space on railway maps of the Habsburg Monarchy/Austria-Hungary is analyzed and interpreted. Two railway maps from the 1840s and one network map from the 1860s are examined from the perspectives of their visual language and inherent communication mechanisms. A reciprocal approach to maps is applied. The context in which maps are created (production and consumption) is taken into consideration, as is the context which is created by maps (spaces as cultural products). The desired outcome is a synopsis of the plurality of spaces envisioned in the mid-nineteenth century contrasted with the process of unification of space spurred on by the continuous expansion of railway networks. Topics addressed in this article are the rendering of nature and terrain on maps, the beginning development of a railway corridor into a network of lines, the depiction of networks, the hierarchization of territory in the visual language of maps, and the marking of space as a national territory.

Keywords: railway, maps, cartography, space, network, Habsburg Monarchy, Austria–Hungary

Introduction

In the first half of the nineteenth century, the railway started to transform the landscape and, with it, people's perceptions of the world around them and the ways in which they moved through it.¹ Novel notions of space found themselves translated into railway maps produced by engineers, planers, railway companies, publishing houses of maps, guide books, and atlases. This paper focuses on three railway maps from the middle of the nineteenth century (1845, 1843, 1869), with the aim to show how the presentation of space in the Habsburg Monarchy/Austria-Hungary differed from map to map in the same railway project and also changed significantly over the course of only two to three decades. I outline factors accounting for

1 For an introduction to the history of the railway and its impact on space and time, see: Schivelbusch, *Geschichte der Eisenbahnreise*, 35–50.

these altered perceptions of space and their manifestations on maps. My intention is to provide a synopsis of the diversity of spaces (physical, perceived, and conceived)² on mid-century railway maps of Austrian/Austro-Hungarian provenance.

In his 1988 essay “Maps, knowledge, and power,” historian and geographer John Brian Harley (1932–1991) formulates the hypothesis that maps are cultural products which have different layers of meaning.³ Maps are never to be seen only as a presentation of geographical features, but rather must be read as a form of manipulated knowledge.⁴ Contextualizing maps is, according to Harley, an effective method of making maps speak about the “social worlds of the past.”⁵ Since at least the Middle Ages, when new structures of governance started to form, maps were used to document and legitimize claims of power in space. Images and symbols on the maps which dealt with historical, political, and mythological episodes underline these claims and are part of the communicative vocabulary of cartography.⁶ Although maps over time became more accurate due to improving measuring techniques and gained an aura of relative objectivity, they were nevertheless value-laden products of society.⁷

2 The notion of a plurality of spaces emerged once space was no longer perceived as a container (or dead, passive stage, as Schlögel puts it). Spaces are historically constituted. They have a beginning and an end. They can disappear again. Consequently, we are not dealing with only one space, but a multitude of spaces which exist parallelly. See Schlögel, *Im Raume lesen wir die Zeit*, 68–69; and also: Marc Augé, *Orte und Nicht-Orte: Vorüberlegungen zu einer Ethnologie der Einsamkeit* (Frankfurt am Main: S. Fischer, 1994).

3 Harley, “Maps, Knowledge, Power,” 279.

4 In his seminal essay, Harley assumes that every map is a socially constructed form of knowledge. The specific codes embedded in the wider geographical discourse can tell us (cartographic communication/cartographic manipulation of perception) about power structures logged by the mapmakers. Harley lists several scenarios in which maps can be employed to convey a distinct message or function as a tool of communication: maps in the context of military and bureaucratic utilization, maps as a propaganda tool, maps as a surveillance tool, maps for legitimizing territorial claims. Harley puts maps in the large family of images, which is why he suggests an iconological approach, as derived from Erwin Panofsky (1892–1968), to decode symbols and imagery of maps. Furthermore, he writes about a cartographic language. Methods drawn from semiotics and literary criticism are suitable to identify the rhetorical and persuasive mechanisms in maps. Lastly, Harley points out the social constructiveness of maps. On the basis of Michel Foucault’s (1926–1984) and Anthony Giddens’ (1938) theories on historiography and social systems, Harley raises the argument that (manipulated) map knowledge is in itself a form of power that lies mainly in the hands of state authorities and transports political and ideological messages. Compare: Harley, “Maps, Knowledge, Power,” 277–312. The author, Rainer Vollmar, delivers a very on-point summary of Harley’s approach: Vollmar, “Die Vielschichtigkeit von Karten,” 381–95.

5 Harley, “Maps, Knowledge, Power,” 277.

6 Wawrik, “Historische und Kulturhistorische Informationen,” 193.

7 Harley, “Maps, Knowledge, Power,” 278.

In order to decode the visual language of maps an interdisciplinary approach is advisable. Following Harley's methodology, pictorial, textual, and sociological components of railway maps are going to be taken into consideration to reveal communicative patterns and mechanisms of power in maps⁸ and offer, on the basis of this, insights into the ways in which maps can be interpreted as expression of and tools with which to shape perceptions of space.

Railway maps are a relevant addition to the broad field of research related to the history of railway and railway transport in the Habsburg Monarchy/Austria-Hungary. Although in recent decades, especially since the proclamation of different "turns" in the humanities and social sciences, more attention has been paid to the cultural, social, economic, etc. aspects of the railway, plans and maps of railway lines and the inscribed notions of space continue to constitute a hitherto overlooked topic.⁹ Consequently, reflecting on historic topics from a spatial perspective can perhaps yield new insights which will prompt further research on railway history.

How the railway Transformed Space and Time – Manifestations of Spatial Perceptions on Railway Maps

Space¹⁰ and time are complex phenomena. They constitute the coordinate system of our terrestrial existence in which, knowingly or instinctively, we place every subject, object, and act. Orientation without the context of space and

8 See footnote 4.

9 The first research on Austrian railway maps was conducted by Bettina Krenn and Johannes Dörflinger. In her diploma thesis from 1998, Krenn lists railway maps of Austrian provenance from the nineteenth and early twentieth centuries according to their type and field of use and delivers a description of the maps. See Krenn, "Eisenbahnkarten," 1–221. Johannes Dörflinger also published on cartography and Austrian maps. An essay about Austrian railway maps from the beginning of the era until the outbreak of World War II is part of the small canon of scientific literature about railway maps of Austrian origin. See Dörflinger, "Österreichische Eisenbahnkarten," 157–74.

10 Within the framework of this paper, it is impossible to give a solid introduction to the concept of space as understood in the humanities and cultural studies. The reader can consult the following introductory literature: Henri Lefebvre *The Production of Space*, translated by Donald Nicholson-Smith, 33rd ed. Oxford: Blackwell Publishing, 2013; Jörg Dünne, Stephan Günzel, eds., *Raumtheorie: Grundlagentexte aus Philosophie und Kulturwissenschaften*. Frankfurt am Main: Suhrkamp, 2006; David Harvey, "On the History and Present Condition of Geography: An Historical Materialist Manifesto." In *The Professional Geographer*, 36 no. 1 (February 1984): 1–11; Stephen Kern. *The Culture of Time and Space, 1880–1918*. Cambridge/Mass.: Harvard University Press, 1983; Karl Schlögel. *Im Raume lesen wir die Zeit: Über Zivilisationsgeschichte und Geopolitik* Munich/Vienna: Carl Hanser Verlag, 2003; Edward W. Soja. *Postmodern Geographies: The Reassertion of Space in Critical Social Theory*, 8th ed. London: Verso, 1989; Martin Warnke. *Politische Landschaft: Zur Kunstgeschichte*

time is impossible.¹¹ Without reference points, we would inevitably be lost, and we would lack any understanding of who we are and where we come from.¹² Humanity has continuously endeavored to develop an understanding of time and space and arrive at systems with which to measure them. The invention of calendars and clocks turned time into a cultural product. The imposed linearity and sequentialness of time, which are also reflected in the ways in which some human languages are composed, make it easy for us to locate events in a chronological order.¹³ Historical events become narratable: event A happened at a point in time before event B took place. Both events can be marked with a clear beginning and ending and stand in relation to each other.¹⁴

Space, however, eludes from our efforts to document and narrate it due to its multidirectional dimensions and the simultaneousness and coexistence of coordinates. Space is not linear.¹⁵ In order not to get lost, we apply similar methods to tracing space as we use to structure time. Movements in space are transformed into lines which can then be transferred to a two-dimensional surface: a map. In the form of lines and points on maps, space, which has no beginning and no ending and is consequently hard to narrate, becomes fixed and more controllable.¹⁶ Maps, thus, are always a reflection of how people see the environment.

The railway system (and maps thereof) can be understood as manifestation of a new spatial awareness and at the same time as tool(s) which shaped space and produced a new form of cultural space.

Historian Wolfgang Schivelbusch argues, that with the reduction of travel time, the railway helped shrink space and brought places closer together. At the same time, the increased speed of travel meant that people could reach faraway places in a much shorter time. For travelers, the space between stations lost importance, while beginning and end points of travel became increasingly significant.¹⁷

der Natur. Munich/Vienna: C. Hanser, 1992; Martina Löw. *Raumsociologie*. Frankfurt am Main: suhrkamp taschenbuch wissenschaft, 2001.

11 Schlögel, *Im Raume lesen wir die Zeit*, 49–51.

12 On space and identity, see Aleida Assmann. *Erinnerungsräume: Formen und Wandlungen des kulturellen Gedächtnisses*. Munich: Beck, 2006.

13 Schlögel, *Im Raume lesen wir die Zeit*, 50.

14 Ibid.

15 Ibid., 48–51.

16 Ibid., 51.

17 Schivelbusch, *Geschichte der Eisenbahnreise*, 35–39.

Last but not least, schedules oriented around departure and arrival times made the introduction of a standard time necessary, that by the 1890s replaced local times in Central Europe.

The railway touched and changed many parts of life in the nineteenth century and consequently also replaced an old space-time continuum with a new one.¹⁸ By tracing this novel perception of space on railway maps, we can enhance our understanding of the specific view map producers and map users had of a place or territory (mental maps¹⁹) and the ways in which this view changed over time. We can learn how authorities, stakeholders, constructors, landowners, and key political players positioned themselves and others in space, how they constructed their identities within a newly emerging understanding of space, and how this understanding of space itself was shaped and controlled.

The Development of the Railway and Railway Maps in the Habsburg Monarchy/ Austria–Hungary

The history of the Austrian railway in the nineteenth and early twentieth centuries is commonly divided according to the phases of ownership and financing of railway projects.²⁰ It should be mentioned however, that a clear timeline of railway periods cannot always be followed, as gaps between the order and final implementation of railway-related laws occurred.

Following a pioneering phase of private funding and planning of the first railway lines between 1824 and 1841, a phase of railway construction under state initiative took place from 1841 to 1854/58²¹. Having finally grasped the potential of this new means of transportation, the state wanted to bring the railway under

18 Ibid., 43–44.

19 Regarding the function of mental maps and mental mapping in spatial research in the social sciences and humanities see Sabine Damir-Geilsdorf, ed. *Mental maps, Raum, Erinnerung: Kulturwissenschaftliche Zugänge zum Verhältnis von Raum und Erinnerung*. Münster: LIT, 2005; Roger M. Downs, David Stea. *Maps in minds: Reflections on cognitive mapping*. New York et al.: Harper & Row, 1982; Frithjof Benjamin Schenk. “Mental Maps: Die kognitive Kartierung des Kontinents als Forschungsgegenstand der europäischen Geschichte.” *Europäische Geschichte Online (EGO)*, Mainz: Leibniz-Institut für Europäische Geschichte, June 5, 2013, accessed on October 4, 2018. <http://www.ieg-ego.eu/schenkf-2013-de>

20 For a history of the Austrian railway see Karl Gutkas, ed. *Verkehrswege und Eisenbahnen: Beiträge zur Verkehrsgeschichte Österreichs aus Anlaß des Jubiläums “150 Jahre Dampfeisenbahn in Österreich.”* Vienna: Österr. Bundesverl. 1989; Harald Heppner. *Der Weg führt über Österreich: Zur Geschichte des Verkehrs- und Nachrichtenwesens von und nach Südosteuropa. 18. Jahrhundert bis zur Gegenwart*. Vienna et al.: Böhlau, 1996.

21 *De jure* the railway concession law from 1854 set an end to the phase of railway construction under state initiative. However, it took until 1858 to transfer railway lines to private owners/ enterprises.

its control in order to push the construction of new lines and connections independent of the financial aims of private investors. The expansion of the lines of the Emperor Ferdinand Northern Railway and the Southern Railway were among the most urgent infrastructural development plans.²² Furthermore, the Milan-Venice railway line (Venedig-Mailänder Bahn) was completed in 1846, and the challenging Semmering railway (Semmering Bahn), as part of the Southern Railway, and the Empress Elisabeth Railway (Kaiserin Elisabeth-Bahn) were built under state control. Financial restrictions put an end to the first state phase in 1854. A new railway law aimed at private investors obliged them to disclose the details of their planned railway projects for the state to check and approve.²³ Between 1854/58 and 1873/80 the railway network of the monarchy grew significantly. However, private investors recoiled from financing railway projects that made sense only for the infrastructural development of the monarchy and promised less profit. Lines deemed important by the state, like the Arlberg Railway (Arlbergbahn) or a railway along the Dalmatian coast, could not be realized during that period. The financial crisis of 1873 forced the state to engage more actively in the railway program once more. The construction of the Arlberg tunnel in 1880 marked the beginning of a second phase of railway construction under state control.²⁴ In addition to investing more money in private railway projects, the state also funded the construction of lines of pressing importance. In 1896, the k.k. Railway Ministry in Vienna was founded with the function of monitoring and controlling railway traffic and railway projects in the Austrian lands of the Dual Monarchy. In the last phase of railway politics, the New Alps Railways were built.²⁵ Also, minor connections were created. The collapse of the Austro-Hungarian Monarchy in 1918 led to the breakup of the vast railway network, as huge parts of it were then situated in the neighboring countries, two of which were newly created states.

Numerous diary entries, episodes from fictional literature, drawings, and paintings demonstrate how the novelty of rail travel was perceived in the nineteenth century.²⁶ This new medium not only found novel forms of expression

22 Krenn, "Eisenbahnkarten," 7 and Bachinger, "Das Verkehrswesen," 278–322.

23 Waldmüller, "Quellenkundliche Forschungen," 73 and Krenn, "Eisenbahnkarten," 7.

24 Krenn, "Eisenbahnkarten," 7.

25 Praschinger, "Die österreichischen Eisenbahnen als wirtschaftlicher Faktor," 104.

26 Needless to say, the railway and the new form of travel inspired arts, culture, and literature in the nineteenth century. William Turner's (1775–1851) painting *Rain, Steam and Speed – The Great Western Railway* from 1844 or Claude Monet's (1840–1926) railway and rail station paintings from the 1870s are a celebration of the new power of industrialization and travel. In the nineteenth century novel, authors like Max Eyth

in art and literature, it also demanded improved techniques and approaches in the scientific documentation of railway tracks.

Before people engaged in travel on a grand scale, the military and the state were the primary users of most of the manuscript maps produced in the eighteenth and nineteenth centuries. These maps were to a large extent kept under strict control and treated as secrets, as in times of conflict and war detailed maps of the territory could provide the enemy with crucial information.²⁷ The development of the street network in the Habsburg Monarchy and the emergence of the stage coach system in the seventeenth century resulted in the production of new road maps and stage coach maps which were made available to the public as well.²⁸ At the beginning of this phase, roads and stage coach connections were often added to topographic maps, for instance from the Austrian land surveys.²⁹ Later, with the rise of rail and steam boat travel, further traffic connections had to be integrated into the maps. In the interest of legibility, thematic travel maps were made in the nineteenth century.³⁰ Slowly but surely, railway maps started to supersede the stage coach maps.³¹ Due to the growing density of the railway network from the middle of the century onwards, railway maps grew in scale and complexity; detailed traffic and railway atlases were published. Furthermore, thematic travel maps were adapted to the users' needs.³²

(1836–1906) and Max Maria von Weber (1822–1881) sought to capture every facet of life, putting the focus on engineers and train drivers. In his novel “Eine Winternacht auf der Lokomotive” from 1865 Weber portrays the hardship of a train driver during a winter night trying to keep the engine running, while the passengers enjoy themselves in the heated compartments. For further information on the railway as a motif in German literature see Mahr, *Eisenbahnen*, 46–51.

27 Lindner, “Landesaufnahmen deutscher Territorien,” 411–41.

28 Krenn, “Verkehrsgeschichte im Kartenbild,” 28–31. For more information on the stage coach system see Monika Diketmüller, “Von der Postkutsche zur Eisenbahn in Niederösterreich im 19. Jahrhundert,” PhD diss., University of Vienna, 1992; Christine Kainz, *Österreichs Post. Vom Botenposten zum Postboten*. Vienna: Verlag Christian Brandstätter, 1995.

29 Krenn, “Eisenbahnkarten,” 8.

30 Ibid.

31 Ibid.

32 Krenn, “Eisenbahnkarten,” 8–9.

*The Railway Line Wiener Neustadt–Ödenburg – A Case Study
on Two Different Perceptions of Space In Early Railway Maps*

One of the earliest railways of the monarchy, the line between Ödenburg (Sopron, Šopron) in the Hungarian lands of the empire and Wiener Neustadt was planned and built between 1840 and 1847.³³ The plan for this line was a joint venture of the Hungarian aristocrats Pál Esterházy (1786–1866), count István Széchenyi (1791–1860), and the banker Georg Simon von Sina (1783–1856). The Hungarian nobles wanted the railway to come to Hungarian lands. Count Széchenyi greeted the project commissioned by the king Ferdinand I of Austria (1793–1875)³⁴ with great enthusiasm:

With this [project] a bright star rose for the West of Hungary; its growing radiance will illuminate the tracks of its [Hungary's] future rapid progress. (Ein heller Stern ist damit dem Westen Ungarns aufgegangen, dessen wachsender Strahlenglanz die Bahnen seines zukünftigen raschen Fortschrittes erleuchten wird.)³⁵

In 1845, construction work under the oversight of Mathias Schönerer (1807–1881)³⁶ began. The track between Ödenburg and Wiener Neustadt is 31.9 kilometers long and passes through slightly hilly terrain. Leaving Wiener Neustadt, the train crosses the river Leitha (Lajta) and, thus, the former

33 For the history of railway travel in Burgenland, see Chmelar, *150 Jahre Eisenbahn*.

34 In November 1844, the line between Wiener Neustadt and Ödenburg was commissioned by Emperor Ferdinand I. Capital stock of the railway came to 1.5 million Gulden; one stock was 200 Kronen. The commission and contract signed between the railway company and the vicegerent of Ofen was seen as valid for 50 years. Count Széchenyi, count Heinrich Zichy, and Eduard Tschurl signed the contract as representatives of the railway company. Chmelar, *150 Jahre Eisenbahn*, 28; Benedek, *Mattersburger Viadukt*, 10–13.

35 Extract from a short speech in German delivered by Count Széchenyi during the general assembly for the commissioned railway line in March 1845 in Ödenburg. (Translation into English by the author.) Hans Chmelar, *150 Jahre Eisenbahn*, 14, quoted from Paul Mechtler. *Die erste Eisenbahn im Burgenland*. Burgenländische Heimatblätter, März 1962, 83.

36 Mathias Schönerer was a railway engineer of the Habsburg Monarchy. He was involved in the construction of the horse-drawn railway Linz–Budweis–Gmund (1827–1836). In 1841 the first railway tunnel on Austrian territory (near Gumpoldskirchen) was built under his lead. Later, he was responsible for the railway projects Vienna–Gloggnitz and Mödling–Laxenburg. During the revolution of 1848/49 Schönerer organized the first military transports via railway. From 1856 he was member of the board of administration of the Empress Elisabeth Railway (Kaiserin Elisabeth-Bahn), and from 1867 member of the board of administration of the Emperor Franz Joseph Railway (Kaiser Franz Josephs-Bahn). For his merits for the railway in the Habsburg Monarchy, Schönerer received knighthood in 1860. Accessed on 3 October, 2008.

<http://www.literature.at/viewer.alo?viewmode=overview&olfullscreen=true&objid=12540&page=168>; Benedek, *Mattersburger Viadukt*, 16.

Austrian-Hungarian border. On its way to Ödenburg, the train passes by the villages Katzelsdorf and Neudorf/Neudörfl (Lajtaszentmiklós/Najderflj). The track then runs alongside the Rosalien Mountains. Several embankments and cuttings were built to cover height differences of the terrain. Before reaching Mattersdorf (since 1924 Mattersburg/Nagymarton/Matrštof), the train has to ascend the steepest part of the track (with an incline of 10.5 percent). The station in Mattersdorf was the largest on the entire line. After crossing another hill, the train passes by the villages Marz (Martz/Márcfalva/Marca), Rohrbach (Fraknónádasd/Orbuh), Loipersdorf (Lépesfalva), Schattendorf (Somfalva/Šundrof), and Agendorf (Ágfalva/Agendrof). The station on the western periphery of Ödenburg was then to constitute the end of the line.³⁷ From the beginning of the planning period, the railway line was laid out to be double-tracked, which shows that planners expected a high volume of traffic for the line, which potentially would be prolonged to the south.³⁸

Two monumental viaducts were built by Schönerer for the track: the Mattersburger Viadukt and the Wiesenviadukt. Both viaducts show architectural features similar to the architecture later employed in the Semmering route. It is likely that ideas for the challenging Semmering project built as part of the Southern Railway between 1848 and 1854 by Carl von Ghega (1802–1860) were put to the test in this less demanding terrain.³⁹ Shortly after the line opened in 1847, traffic volume on the route was high, bringing economic growth to the region of Mattersdorf and Ödenburg for a short time.⁴⁰

A brief comparison of the two railway maps of the same line from Ödenburg to Wiener Neustadt produced in 1843 and 1845 (Figure 1 and Figure 3) shows that different ways of presenting one and the same railway

37 Chmelar, *150 Jahre Eisenbahn*, 18–19.

38 The double-tracked version of the line was not built, however, because of political tensions between Austria and Hungary in the 1840s. The Southern Railway should not run over Hungarian territory. See Chmelar, *150 Jahre Eisenbahn*, 22 and Benedek, *Mattersburger Viadukt*, 10.

39 Chmelar, *150 Jahre Eisenbahn*, 24–27 and Benedek, *Mattersburger Viadukt*, 12.

40 During the Hungarian revolution of 1848/49, traffic on the track between Ödenburg and Wiener Neustadt came to a halt. On April 10, 1848, local peasants of Mattersdorf damaged parts of the track markings because they never received compensation for their land, which they gave to the railway company in 1845. In an attempt to stop them, 224 soldiers from Ödenburg were sent to Mattersdorf. However, only troops from Vienna could finally cause the enraged peasants to withdraw. In autumn 1848, the border between Austria and the Hungarian lands was closed. These developments resulted in financial losses to the railway company. Although, the traffic in goods was profitable, the line generally did not yield the profit stockholders had hoped to get. In 1854, the line between Ödenburg and Wiener Neustadt was sold to the state. Chmelar, *150 Jahre Eisenbahn*, 28, 35–36.

line can lead to very different visual results. Consequently, the spaces captured and reimagined by the mapmakers and commissioners differ to some extent. Different reasons might explain the different approaches to the representations chosen for the manuscript maps, with the date of map production, the function of the map, and the prospective audiences being the most obvious. However, we often have little information concerning these kinds of factors, in particular the functions of the maps and the prospective audiences, and thus we can do little more at this point than venture guesses. If we consider the possible visual strategies of which these two maps seem to be the product, we can, however, hazard some hypotheses concerning the aims of the mapmakers.

The Role of Nature In Early Railway Maps

Map number one, entitled *Übersichtskarte der zwischen Oedenburg und Wiener-Neustadt im Jahre 1845 im Bau begriffenen LOCOMOTIV-EISENBAHN* (Figure 1), is a manuscript map on paper with relatively large measurements (106×85 cm). The terrain is not shown in its entirety and the image does not fill the sheet; rather, the user of the map is given a cut-out of the topographic landscape stretching diagonally between Wiener Neustadt and Ödenburg. Large blank spaces on the map's edges are used for the heading (top center) and a scale bar (bottom left). Linear measures on the map are indicated in Wiener Klafter (Vienna fathom), $158 \text{ mm} = 2400 \text{ Kl.}$ or $1 : 29,000$.⁴¹ Further inscriptions are featured either directly on the topographic drawing or next to it. Roads are featured as thin black lines. The border between Austria and Hungary is shown as a thicker, broken line. Still, the border is not over-accentuated or strikingly prominent on this map.⁴²

The projected railway line is colored red, establishing also a visual connection between Ödenburg and Wiener Neustadt. Interestingly, shortly before it reaches

41 Figure 1 and accompanying metadata in the online database Hungaricana: <https://maps.hungaricana.hu/en/MOLTerkeptar/3664/> [October 5, 2018].

42 Because the railway line is a cross-border connection, the question of ownership and responsibility was addressed early in the planning process. It was foreseen that the part of the railway line on Austrian territory was run by the Vienna-Gloggnitz railway company, the newly founded Ödenburg–Wiener Neustadt company would be responsible for the part of the track on Hungarian soil. Both railway companies belonged to the banking empire of Sina. Finally, in March 1846, it was decided that the Austrian railway company should take over the management for the entire track. The division of responsibility between the two railway companies is not apparent, however, from the map, which suggests that it was of minor importance to the mapmaker. Chmelar, *150 Jahre Eisenbahn*, 18.

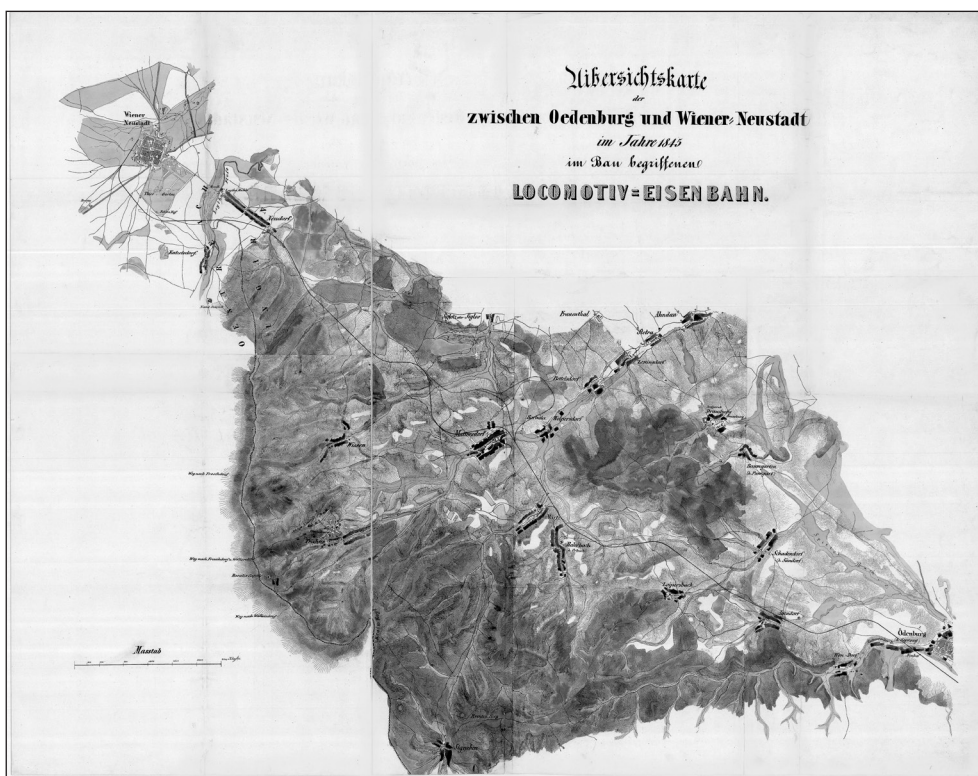


Figure 1. Übersichtskarte der zwischen Oedenburg und Wiener-Neustadt im Jahre 1845 im Bau begriffenen LOCOMOTIV-EISENBAHN, (overview map for the locomotive railway line under construction in 1845 between Oedenburg and Wiener-Neustadt), colored drawing on paper, 106x85 cm, 1845, Inv.nr. E 96 1845, 9:14, National Archives of Hungary. Accessed on October 7, 2018. (<https://maps.hungaricana.hu/en/MOLTerkeptar/3664/>)

Mattersdorf, the track forks, which shows that in 1845 (relatively late in the planning process of the line), another option for the track which had been discussed in 1838 had not been ruled out.⁴³ Crossing the valley near Mattersdorf was a challenging task which Schönerer was only able to solve almost ten years after the first plans were made with better knowledge of railway construction, which he acquired in part during his travels to England and America.⁴⁴ The two town plans of Ödenburg and Wiener Neustadt are executed in greater detail and

43 On a map from 1838 entitled “Übersichtskarte der projectierten Tracen der Wien–Raaber Eisenbahn sammt Nebenzweigen. In der Ausführung begriffen unter der Leitung des Civil Ingenieurs M. Schönerer,” the railway line to Ödenburg was planned to follow a different route north of Mattersdorf. See Chmelar, *150 Jahre Eisenbahn*, 12–13.

44 Ibid.

colored red as well. This accentuation automatically establishes a visual hierarchy among the villages and towns on the map: Ödenburg and Wiener Neustadt are of greater significance.

The visually most striking feature of the map, however, is the depiction of the terrain. Although declared in the title of the map, the projected railway track is not its sole focus. The topography of the landscape is much more prominent to the eye. This begs the question: why did the mapmaker, whose name was not indicated, chose this mode of presentation? Can we perhaps identify visual traditions to which the mapmaker was harking back which would explain the accentuation of nature and the terrain?

The dense placement of hachures to model the form and height of hills and slopes and the use of primarily dark colors like browns and greens make it hard to read the cartographic symbols and labels and spot the course of the railway line at a single glance. Color patches and hachures form a solid visual entity. The visual dominance of landscape features and landscape rendering indicates that the concept of space inscribed into the map was still routed in an environment dominated by nature. Building traffic infrastructure still meant an adaption to landscape. Although humans remodeled the environment according to their needs, until the nineteenth century, hills, mountains, and rivers still presented barriers that could only be overcome only with difficulty and effort. The course of a street or the position of a dwelling, harbor, or bridge were strongly geodetermined.⁴⁵ It is thus comprehensible that topographic features seem to be disproportionally presented in especially early railway maps: the supremacy of nature and the achievement of partly overcoming natural barriers (for instance by building viaducts⁴⁶) are inscribed into the visual language of the map: the railway starts to subdue nature. Moreover, for constructors and financiers, the exact course of the line, possible obstacles on the way, the position of stations and the feasibility of a project (which depended on these factors) were of central importance. Maps for this user group had to be detailed and precise.

The visual language of the map from 1845 is from many perspectives in line with stylistic traditions of eighteenth-century and early nineteenth-century topographic cartography. Extensive field measurements were being

45 Denecke, 168–71.

46 The construction of the viaduct in Mattersdorf was challenging. Never before had a project of this size been completed. 4,000 workers, mostly from Bohemia, lived and worked under dreadful conditions. Landslides, accidents, and infectious diseases threatened the lives of the workers. Still, the viaduct was finished within two years. Benedek, *Mattersburger Viadukt*, 11.

taken with increasing frequency and regularity in Western and Central Europe in the eighteenth century, as absolute rulers sought to document their entire sovereign space. These were the first attempts to measure every detail of the environment scientifically, resulting in accurate maps of the terrain. The first official field measurements of the Austrian crownlands were taken during the reign of Maria Theresia (1717–1780) by the military (Josephinian Land Survey/*Josephinische Landesaufnahme*/Erste Landaufnahme, 1764–1786).⁴⁷ Between 1764 and 1786, more than 3,500 maps were drawn. A second Austrian land survey was conducted in the first half of the nineteenth century (*Franziszäische Landesaufnahme*, 1806–1869). Topographic maps produced during both land surveys show stylistic characteristics similar to the stylistic characteristics of the railway map from 1845. From the perspectives of image section, choice of colors, script, cartographic symbols, depiction of terrain, use of hachures, depiction of infrastructure, framing of the cartographic content, etc., especially maps from the second Austrian land survey show striking similarities to railway map.

As pointed out by Krenn, particularly during an early stage of the railway age, railway lines were additionally drawn into older topographic maps.⁴⁸ Is the railway map from 1845 thus actually an updated version of an older topographic map from the region between Ödenburg and Wiener Neustadt? Without an in-depth analysis of topographic maps from the two land surveys, this assumption cannot be proven or ruled out.

New topographic maps of the area around Wiener Neustadt were made in 1820.⁴⁹ For the Hungarian land, however, the latest maps were only from around 1782–1785.⁵⁰ The area behind the Austrian-Hungarian border was not officially mapped again until 1856 (e.g. Pöttsching (Pecsenyéd/Pečva), Pöttelsdorf (Petőfalva), Mattersdorf, Sopron, Agendorf).⁵¹ The different dates

47 The name Josephinian Land Survey relates to Maria Theresia's son, Joseph (1741–1790), who from 1765 was responsible for military affairs and thus also supervised field measurements of the crownlands. See also: Lindner, "Landesaufnahmen deutscher Territorien," 426–428.

48 Krenn, "Eisenbahnkarten," 8.

49 For detailed maps of the second Land Survey see <https://mapire.eu/de/map/cadastral/?layers=osm%2C3%2C4&bbox=1790567.3900514918%2C6062444.842889478%2C1838837.3734135807%2C6077732.248546513> Accessed on October 7, 2018.

50 For detailed maps of the Josephinian Land Survey see <https://mapire.eu/de/map/firstsurvey-hungary/?layers=osm%2C147&bbox=1846312.5028221803%2C6021959.64898766%2C1942852.469546358%2C6052534.460301731> Accessed on October 7, 2018.

51 For further information, study the georeferenced cadastral maps of the second land survey (*Franziszäische Landesaufnahme*) at <https://mapire.eu/de/map/cadastral/?layers=osm%2C3%2C4&bbox=>

of origin of the survey maps suggest that the mapmaker of the railway map from 1845, rather than adding information to an older map, used different topographic maps from the area to draw the railway map *Uibersichtskarte der zwischen Oedenburg und Wiener-Neustadt im Jahre 1845 im Bau begriffenen LOCOMOTIV-EISENBAHN*.

Because no information about the cartographer of the map, its customer, or place of presentation or publication is given on the map sheet, we can only speculate about the purpose of the map. Furthermore, we do not know whether copies of the manuscript map were made. A higher number of publicly available copies would also imply a larger circle of potential map users. Given the year in which the map was produced (in 1845, the railway line was still under construction), the prominent heading, and the way in which the railway connection is presented as a red line cutting across the hilly and challenging landscape, it is imaginable that the map addressed potential buyers of stocks for the railway line rather than travelers. In April 1845, during the general assembly in Ödenburg, it became obvious that the railway project would be much more expensive than estimated. Instead of 1.5 million Gulden, construction of the railway line would cost more than 2 million Gulden. The two monumental viaducts, changes in the track, and a restaurant near the station in Ödenburg led to an increase in costs. New stocks had to be sold in order to cover the expenses and advance construction work.

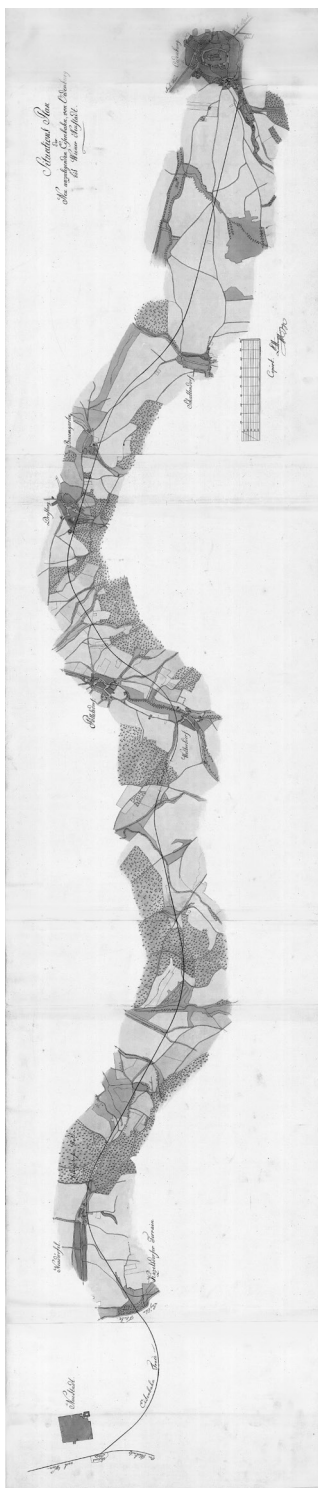
Space as a corridor: The narrow view of mapmakers concerning the railway line from Ödenburg to Wiener Neustadt

A phenomenon present especially in early railway maps is a corridor-like view of the mapmakers concerning the railway lines and the landscapes along the track. The geo-determinacy of infrastructure apparent from the visual language of map one is also reflected in the mapmaker's relatively narrow view of the terrain. Apart from the projected railway line, other factors relevant for the construction of the track are mapped, such as the terrain, nearby settlements, and infrastructure. As noticeable from map one, a favorable course of the route through uneven, hilly landscape required to some extent an adaption of the track to the terrain, resulting in a situation in which the railway line is more or less enclosed by natural barriers (hills, slopes, rivers, streams, etc.). One gets the

1829206.8178942474%2C6055223.618854407%2C1853341.8095752918%2C6062867.321682924 Accessed on October 7, 2018.

impression of a natural corridor. The terrain outside the sphere of influence of the railway line is irrelevant to the project and user groups of the map, and consequently, this area is not featured (blank spaces on map).

In addition to creating a depiction of nature and natural barriers as a corridor, the engineers' and mapmakers' view of space also resulted in a narrow corridor perspective that ultimately was translated onto the map. The design of the railway track, the beginning and end points, and stops on the way compose the corridor. Especially in the first decade of steam-powered rail traffic, when a network of rails had not yet been established and connections existed primarily



between cities or other points of economic interest, it was not yet seen as necessary to document other long-distance traffic connections. From the point where a railway line stopped or ended, travel was continued using means which had been in use before the age of the railway: by stage coach or on foot.

On the railway map from 1845 as well as on the map from 1843, roads are shown, but they mostly lead to nowhere. Still, we find indications of direction (e.g. Weg nach Froschdorf, Figure 1).

The railway map from 1843, *Situations Plan der Neu anzulegenden Eisenbahn, von Oedenburg bis Wiener Neustadt* (Figure 3), pushes the notion of space as corridor even further.

Figure 3. *Situations Plan der Neu anzulegenden Eisenbahn, von Oedenburg bis Wiener Neustadt*, (General site plan for the future railway from Oedenburg to Wiener Neustadt), Mihály Vágner, (222 × 48,5 cm), hand drawn, colored, on paper, 1843. Accessed on October 7, 2018.

<https://maps.hungaricana.hu/en/MOLTerkeptar/7688/view/?bbox=-1170%2C-8926%2C27792%2C2862>

Map three shows another, not realized trace design in which the railway track was planned to go through the villages Pöttelsdorf, Draßburg (Darufalva/Rasporak), and Baumgarten (Sopronkertes/Pajngrt). The mapmaker was Mihály Vágner from Ödenburg. The map is relatively large in size (222 × 48,5 cm), has an elongated format,⁵² and

⁵² The elongated format is typical for route maps. The format was first applied in England in the second half of the seventeenth century for the presentation of the most important streets in England. Later, especially during the 1830s and 1840s, route maps were used to document the first railway lines. The two main functions of these map types in the Habsburg Monarchy identified by Krenn, Kretschmer, and Dörflinger was to inform travelers and/or investors about details of the railway line (either for travel purposes or to provide an overview of the railway project). See Krenn, "Eisenbahnkarten,"

is hand-drawn on paper. The elongated manuscript map focuses almost exclusively on the planned railway line, and the surrounding area is left out. From the perspective of style, the map resembles traditional road plans and maps for waterways.

In comparison to the map from 1845, surroundings are rendered more schematic. Landscape characteristics are presented in a plain, nearly geometrical form, as was typical for cadastral maps and site plans of that time. The environment along the track is given little importance. Forests, fields, and streams are cut off at the edge of the corridor. The planned railway line is superimposed onto the existing network of villages and roads, establishing a linear connection between both cities and, thus, a new hierarchy within the region. Within the spatial corridor of the future railway line, the distance between the cities Ödenburg and Wiener Neustadt shrinks significantly. The space to the left and the right the track is considered irrelevant to the new form of travel. Or to use Schivelbusch's phrasing, the space untouched by the railway gets eliminated.⁵³

Another interesting component of the map from 1843 is that the area behind the Austro-Hungarian border (around Wiener Neustadt) is almost left blank. It is possible that Vágner, who was a Hungarian engineer, official of Sopron County, and land surveyor, had no detailed cadastral information about the Austrian land and that part of the railway line at hand. Also, in 1843, there were still two railway companies responsible for the construction of the line, which is why Vágner might have produced this manuscript map especially for the Hungarian planning team of the Ödenburg-Wiener Neustadt company. A signature on the map sheet with the note "Copirt" indicates that the map is a copy of the original Vágner *Situations Plan*. The map thus might have been copied several times and spread among a wider group of users. We do not yet know by whom (e.g. constructors, investors, the public) and to what purpose copies of the Vágner railway plan were used.

9; Ingrid Kretschmer. "Gebrauchskarten für den Verkehr." In *Austria Picta: Österreich auf alten Karten und Ansichten*, edited by Franz Wawrik, Elisabeth Zeilinger. Graz: Akademische Druck- u. Verlagsanst., 1989, 172, and Johannes Dörflinger, "Eisenbahnkarte." In *Lexikon zur Geschichte der Kartographie*, edited by Ingrid Kretschmer, Johannes Dörflinger, Franz Wawrik, Vol. 1, Vienna: Deuticke, 1986, 187.

53 Schivelbusch, *Geschichte der Eisenbahnreise*, 35, 37.

From Corridor to Network – The Growing Importance of Traffic Junctions on Railway Maps

Although, as discussed above, the Situations Plan from 1843 does not provide information about the landscape on the Austrian side of the planned railway line, the future traffic junction in Wiener Neustadt (marked as Stationsplatz) is already indicated on the map.⁵⁴ Here, the line from Gloggnitz to Vienna was going to cross, forming a traffic connection between the Austrian and the Hungarian lands. Though frequent travel by train was not yet very common in the 1840s because a network of lines had not yet been established,⁵⁵ both maps nonetheless seem to presage the importance of traffic junctions for movement and communication in the Habsburg Monarchy. Although in 1843 the line between Ödenburg and Wiener Neustadt had not yet been built and the southbound railway line was only completed between Vienna Südbahnhof and Gloggnitz, Vágner and/or the potential initiator of the map deemed this traffic junction and the growing network of lines significant for the region.

For the next roughly eighty to one hundred years to follow, until the emergence of automobiles and air traffic, railway lines and train stations remained the most powerful hubs and channels along which people, goods, ideas, images, innovation, and ideologies traveled. They hastened the pace of industrialization, migration, and urbanization, as well as the exploitation of nature.

The railway map published in 1869 by Lehmann & Wentzel in Vienna entitled *Neueste Eisenbahnkarte der ÖSTERREICHISCH-UNGARISCHEN MONARCHIE: mit Berücksichtigung der Montan und Industrie Bahnen* (Figure 4) shows many characteristics with which the modern-day user of traffic maps is accustomed: a stereographic projection of the area's surface, a network indicating actual geographic position and schematized layout, station names arranged above one another for better legibility, and a color code for the single branches to simplify orientation. The user finds a coordinate system and a legend listing railway lines and associated color codes. Lines planned or under

54 The crossing of the two railway lines is also indicated on the map from 1845.

55 In the early age of rail travel, the number of passengers on the few existing lines was rather low compared to the number of passengers in the second half of the century. In 1848, approximately three million passengers were transported by railway. In 1873, this number grew to 43 million passengers per year. With the increase in the number of passengers, the importance of railway maps for travel grew. See: Waldmüller, "Quellenkundliche Forschungen," 75.

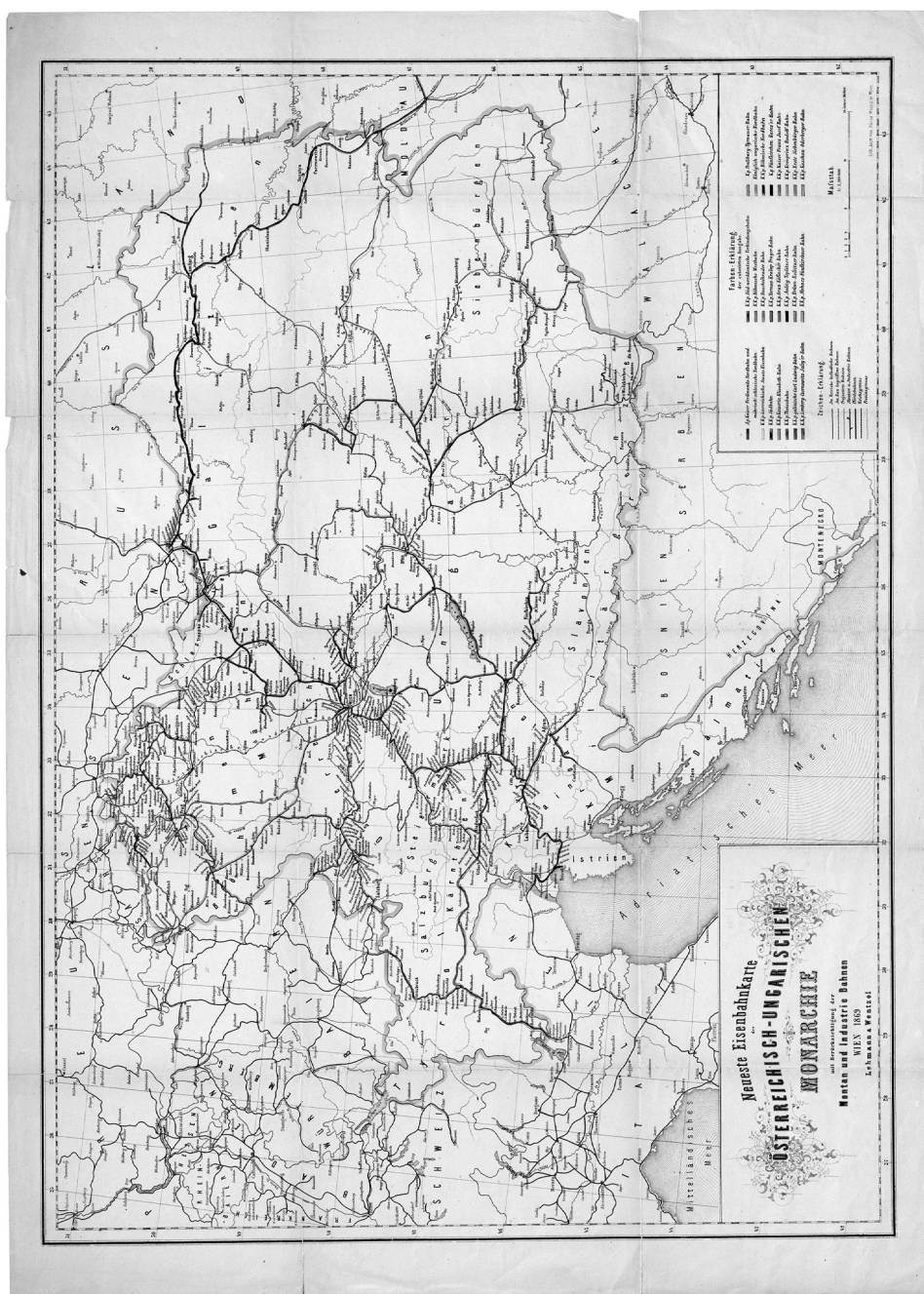


Figure 4. Neueste Eisenbahnkarte der ÖSTERREICHISCH-UNGARISCHEN MONARCHIE: mit Berücksichtigung der Montan und Industrie Bahnen, (Newest railway map of the Austro-Hungarian Monarchy: considering also the montane and industrial railway), publisher: Lehmann & Wentzel 50 × 69 cm, lithography, on paper, Vienna 1869
http://sammlung.woldan.oeaw.ac.at/layers/geonode:ac04078710_lehmann_oesterreich_1869
 Accessed on October 7, 2018.

construction are marked with different graphic signatures (e.g. two thin black lines for a planned track and an alternating pattern of black and white stripes for a railway line under construction). Over the course of twenty to thirty years, a map language for railway lines used in travel developed in Europe and the Habsburg Monarchy/Austria-Hungary which in many ways is still valid today. Given the need to document the growing network and most of all to facilitate travel, the map language focuses on overview and orientation.

The title of the map, displayed in a rectangular cartouche, denotes the fast rate with which the railway network grew at the time. The user holds in his/her hands the newest railway map (die *Neueste Eisenbahnkarte*) which shows that map production tried to keep pace with the expansion of the network. In the second half of the century, updated maps had to be published frequently; also, the demand for maps was high. Network maps were among the most common in the second half of the century.⁵⁶ Between 1857 and 1866 the railway network of the monarchy grew at a yearly rate of 327.5 kilometers. As of 1867, that rate rose to 1,352 kilometers of new railway tracks per year.⁵⁷ Isolated corridors evolved into far-reaching networks with travel connections to many parts of the Dual Monarchy and beyond. The network stretches from the Austrian-German border in the northwest to the Adriatic coast in the south, from Innsbruck in the west to Karlsburg (Alba Iulia/Gyulafehérvár) in Transylvania. Particularly in the northwest, Austrian railway lines connect with the German network, making travel and trade truly international.

As a single glance at the map reveals, Vienna is in the center of the railway network. A majority of the lines built by the middle of the century radiate from the capital Vienna towards national traffic junctions, the most important of them being Pest/Buda, Brünn (Brno), and Prague. From here, the network further expands to regional traffic junctions. In the Austrian part of the empire, the railway network is much denser than in the eastern lands of the monarchy. Many of the lines towards Galicia and Transylvania were still under construction at the end of the 1860s, resulting in cities like Lemberg (Lwiw/Lwów), Czernowitz (Csernyivci, Czerniowce, Cernăuți), Kronstadt (Braşov/Brassó), and Hermannstadt (Sibiu/Nagyszeben/Hermestatt) being at the far-flung periphery of the monarchy's network and thus difficult to reach.

56 Krenn, "Eisenbahnkarten," 79.

57 Franz Baltzarek, "Die Finanzierung des Eisenbahnsystems," 222.

The map language, cartographic symbols, and layout and arrangement of content on the map sheet direct the user's gaze and influence the way the map is read. The center-periphery dichotomy, for example, automatically results in a hierarchy in the virtual space created by the map, which also translates back into perceptions of the physical space. When they see a given site in a central position, map users consciously or unconsciously associate it with power and control.⁵⁸ All the other points on the map are of subordinate importance compared to the center, in this case, Vienna. Spatial distance is one factor in the establishment or maintenance of a hierarchy. The duration, frequency, and possibility of travel to a place are others. Mapmakers inevitably create hierarchies in space in the sense that the map language always implies a syntactic ordering of its elements. The reader of a map cannot avoid comparing the sites designated on the map and constructing hierarchical relationship among them.

In contrast to the map from 1845, the display of terrain and landscape features is of minor significance on the network map from 1869. On map four, landscape characteristics were reduced to mere markers for orientation. Lakes, rivers, and coastlines help the user of the map get a rough sense of location. Compared to the visual language of the railway map from 1845, where the terrain was very prominent to the eye, there is nothing overwhelming anymore in nature or natural barriers on the 1869 map. The reasons for this are, on the one hand, the changed purpose and thus user group of network maps and, on the other, the modified significance of nature for the railway. The most important reason, however, was simply the growth in rail travel. In the era of industrialization and growing railways, more than ever before, men remodeled nature according to their needs. Tunnels, viaducts, bridges, and embankments are evidence of men's desire to tame nature and foster mobility. If feasible, a railway track no longer adapts to the terrain. Rather, it cuts through nature in a straight, linear path. Seen from the window of a train, nature and natural barriers lose parts of their daunting quality. While nature is still of importance for engineers, constructors, and investors in railway lines, for passengers, as can be seen in the network map from 1869, the environment becomes a sign on a sheet of paper, helpful if one wants an overview.

58 Monika Gibas uses the term "myth of the middle" in her essay on German collective identity to denote certain topoi in which a group of people identifies with the middle as a place of power and superiority. Myths or narratives about the middle oftentimes serve to establish a sense of belonging and shared identity or to preserve inner territorial stability. See Gibas, "Auf der Suche nach dem deutschen Kernland," 198.

In the same sense, as the significance of natural barriers fade, the importance of the display of the country's frontier rises. Apart from the railway lines, the border is the only feature on the map rendered in color (light red), and this draws the attention of the map user to it. Furthermore, the width of the border is remarkable. In comparison to the border of Austria-Hungary, the inner frontiers are barely visibly, presented as fine, dotted lines which can easily be overlooked among the railway lines and rivers. The idea of space and territory envisioned by the commissioner and/or mapmaker is one of unification and openness. The map talks about one space: one space of traffic, even one space of language and nationality, communicated by the exclusive use of German. Not only are the title and the legend of the map in German (only), names of cities, towns, and lands are also given only in German (assuming they had German names). This gesture erases or denies differences in language and ethnicity, making space seem more national. The multi-ethnic nature of the Dual Monarchy is overlooked (or denied) on the map. The network of railway lines is what binds the space together.

Conclusion

One objective of this paper was to show, on the basis of three railway maps of Austrian /Austro-Hungarian provenience, how the railway shaped space and produced new forms of (cultural) space and how these forms of altered spatial awareness found expression in maps. Taking the methodological approach of Harley into consideration, I analyzed two railway maps of the same railway project, the line from Wiener Neustadt to Ödenburg, from the perspective of the presentation of certain visual components. I showed that the dominance of presentations of nature in early railway cartography was related to a stronger geo-determinacy of early railway lines. Nature was still seen and also depicted in maps as a barrier which confined travel and was only overcome progressively by the middle of the century. In addition, the purpose and user groups of early railway maps could account for the strong accentuation of the terrain and nature in maps. In particular, investors wanted to be informed about the exact course of the line, the terrain, stations and stops along the track, etc. Natural barriers and the (comparatively narrow) range of use of early maps resulted in a corridor perspective concerning the railway lines. Once a railway line was finished, route maps were also used by travelers. Findings drawn from the 1843 map align with the general notion that the railway helped shrink space and even make space

disappear.⁵⁹ As fast train connections between important cities and villages were established, the space between stations lost its relevance for travelers, merchants, etc. It started to disappear from maps and, consequently, also from people's mental maps. The railway also accelerated the hierarchization of space, which gains increasingly importance with the network maps appearing in the second half of the nineteenth century. Network maps were aimed at a broader public wishing to travel through the monarchy. Nature in these maps has lost its restricting character and became, as shown in the map of 1869, a marker for orientation. At the same time, while space was being hierarchized (e.g. a hierarchy of centers versus peripheries), it was also bound together and unified by the network of railway lines, which went parallel with the political aspirations of the time in the Dual Monarchy. The visual language of the network map from 1869 also suggests the nationalization of space. The perspective chosen on the land, the use of German, the emphasis on governmental centers (and thus power), and the stressing of the outer border of the Dual Monarchy are indications of a progressing nationalization and delimitation of space towards neighboring countries. Further research on the notion of space in railway maps will help provide answers to some of the questions raised in this essay.

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59 Schivelbusch, *Geschichte der Eisenbahnreise*, 35–37.

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Social Differentiation and Spatial Patterns in a Multiethnic City in the Nineteenth Century: Potential Uses of GIS in the Study of Urban History*

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This study is a GIS-aided quantitative statistical analysis which aims to explain the spatial patterns of sociodemographic phenomena in an urban community in the era of transition from preindustrial to industrial society. It is also a methodological attempt to use a unique source type and compare different methods used for social classification. Using the Hungarian census data from 1870, we tried to assess the wealth levels of different social groups indirectly and compare the internal inequalities within these groups with internal inequalities within social groups in other regions. The source also provided material on the basis of which we were able to reconstruct social networks, migration patterns, different strategies adopted by different religious communities, patterns involving occupation and age group, etc. We were able to compare the potential uses (and limits) of this source with the uses and limits of other sources. Our main goal was to put more emphasis on a spatial-regional approach, which is underrepresented in the Hungarian historiography, while geographers tend to refrain from putting their research into historical frames and contexts.

Keywords: HGIS (GISStory), urbanization, spatial patterns, social stratification, classification methods, quantitative analysis, wealth, 1870 census data

Aims

Although our study essentially aimed to (1) analyze and explain spatial patterns of sociodemographic phenomena in an urban community in the era of transition from preindustrial to industrial society by testing the potentials of a unique source (the census of 1870), other, primarily methodological aspects also arose which are worth further discussion and which put this article into a broader context. We have attempted (2) to outline three different methods which

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can help researchers identify different social layers in urban societies. We also attempted (3) to give an indirect estimate of the wealth levels of different social groups in the late nineteenth century by using the census data and to compare local internal inequalities with inequalities measured in other urban settlements and regions. We also considered (4) the potential applications and limitations of the source in question in attempts to reconstruct social networks and migration patterns, and we compared the uses of this source to other source types.

The applications of HGIS¹ might be familiar to geographers and historians in the West, but the use of this method in Hungarian historical research is underrepresented at the moment (the only existing concise database, compiled for the city of Debrecen on the basis of census data from 1870, remains unevaluated).² Geographers dealing with GIS-aided planning refrain from engaging in research focusing on the past, though the lack of knowledge of the histories of peripheral areas may lead to the adoption of mistargeted policies in development planning. Historians use a “vertical” (sociological) approach instead of spatial (regional) one, but recent studies have shown that the regional diversity in Hungary was not negligible. Thus, generalizations based on small datasets extrapolated to the whole country (and terms like “average”) can be misleading. Our fifth goal, therefore, was to test the applicability of GIS in the field of history. This study can be considered a draft project for the later, more broadly framed projects, such as GISTa Hungarorum (2015–2017).³

Data

The source on which we based our inquiry was chosen because of its uniqueness, which enabled us to investigate and map certain phenomena into which other sources yielded no insights. The census of 1870 was the first modern census

1 HGIS = Historical Geographical Information System (or GISStory, or GIS-aided historical research). For GIS-aided historical research the term HGIS is more common than GISStory. See Gregory, Ian N. *A place in History. A short introduction to HGIS by the lead developers of GBHGIS*. <http://hds.essex.ac.uk/g2gp/gis/index.asp>; or <https://www.gislounge.com/find-gis-data-historical-country-boundaries/> and <http://www.hgis-germany.de/>, <http://www.hgis.org.uk/resources.htm#top>. GISStory is also accepted (see GIS and the City conference in Darmstadt, 2018: <https://www.geschichte.tu-darmstadt.de/index.php?id=3633>). Many thanks to János Mazsu for drawing our attention to the terminological problems.

2 Project OTKA 81 488. Principal investigator: János Mazsu. The reconstruction of social and spatial patterns of Debrecen, 1870–72 was considered the predecessor of this investigation. Recently, Réka Gyimesi initiated a similar project.

3 For the results, see <http://www.gistory.hu/g/hu/gistory/gismaps> and <http://www.gistory.hu/g/en/gistory/otka>.

taken by Hungarian authorities, and (far more importantly) it was the only state inquiry that was based on household level (Figure 1) and not on individual data sheets (later censuses were based on individual data sheets). Furthermore, almost at the same time, a cadastral mapping was also done in 1865 indicating every house with its identification number, which was identical with that of the numbers used in the census sheets.⁴ This temporal proximity and the survival of the original unpublished sheets in some counties⁵ (data were published officially only at the district level in the census volumes) made it possible for us to illustrate sociodemographic phenomena on maps at the household level and even to assess wealth levels based on property at the beginning of the era of industrialization.

The original census sheets from 1870 contained the name, age, address, birthplace, occupation, and religion of the head of the family, and these data were repeated for the wife, children, coworkers/employees, servants, and housemaids living in the same “household.”⁶ The sheets also provided the number of rooms, kitchens, auxiliary buildings (storage areas, stables, cellars) for each household. As the census did not contain income data, some of the abovementioned variables were utilized as proxies for wealth in order to divide the population into social (i.e. income-related) layers. Beyond wealth, general sociodemographic phenomena with or without spatial patterns (such as the average number of children of different occupational groups, the average number of children of groups belonging to different religions, migration patterns, interreligious marriages, territorial aspects of marriage patterns, territorial distribution of religious groups, etc.) were also traced using the aforementioned variables.⁷ The data also made it possible to create new indicators beyond those given in the census, such as population density (room/person) and ratio of earners per family. These derived data were also used as proxy variables to approximate wealth.

Our household-level database contained 2,150 entities (families, *Wohnparthey*), cca. 1,000 houses with approximately 10,000 persons and a dozen

4 Source: MNL–BAZML SFL XV. 83. box. 77–79. Now www.hungaricana.hu and www.mapire.eu (containing settlement level cadastral maps) offer new instruments to find maps with good resolution and information on identification numbers.

5 The data sheets from Zemplén, Ung, and Sáros Counties also survived almost intact in the county archives.

6 The term household and family are not synonyms: a word describing the situation more properly is the German “*Wohnparthei*”. In the following, we use the three terms as synonyms despite the minor differences.

7 Demeter and Bagdi, *A társadalom*.

indicators. Phenomena with spatial pattern were analyzed using GIS (ArcGIS 10.1), while within-group and intergroup differences (like religious composition of occupation groups, differences in wealth levels of religious groups and occupations, ageing, migration, differences in fertility rate, etc.) were evaluated using SPSS.

Household Number	Name	Age	Sex	Occupation	Total
1	Lova Andras	1808	Rep.	nép	1
2	Polakitsgábor	1818	nt.	féf.	1
3	Lova Albin	1809	nt.	féf.	1
4	Lova Albin	1808	nt.	féf.	1
5	Lova Andras	1808	nt.	féf.	1
6	Lova Maria	1811	nt.	féf.	1
7	Lova Maria	1812	nt.	féf.	1
8	Lova Lova	1811	nt.	féf.	1
9	Lova Lova	1811	nt.	féf.	1
10	Lova Lova	1811	nt.	féf.	1
11	Lova Lova	1811	nt.	féf.	1
12	Lova Lova	1811	nt.	féf.	1
13	Lova Lova	1811	nt.	féf.	1
14	Lova Lova	1811	nt.	féf.	1
15	Lova Lova	1811	nt.	féf.	1

Figure 1. Pages from the census, Nagy Piac str., nr. 9.

Source: MNL-BAZML SFL XV. 83. box 77–79.

The Place

The selection of the town of Sátoraljaújhely (the county seat of Zemplén County) as a sample area was ideal from several perspectives. The original census sheets were available for 2,150 households, thus offering substantial material for quantitative statistical analysis, and even the timing of the census itself (1870) was fortunate from the perspective of our inquiry, which focuses on the identification of persisting and transforming urban structures. As a basic step towards industrialization, the railway was opened in 1870, while guilds were dissolved only in 1872, and this implied the parallel coexistence of both traditional and modern social patterns and social layers. In addition, the town had had an inherently positive geographical position for centuries, as it was located along the market line, where the goods produced in the plains and in the mountains were exchanged. The physical geographical conditions allowed a north-south pattern of migration from the peripheries of Zemplén County (the border of which was also a state border) to the county seat, while in the

southern part of the county an east-west migration route developed from the Great Plains towards the capital, Budapest. Although in 1775, the county seat was so peripheral that it was unable to extend its attraction zone very far even within its own administrative district, between 1810 and 1870, its population tripled, and this population growth was among the largest in comparison with the neighboring towns (Table 1). The nearby city of Eger, which was similar in size and had similar functions (it was also a county seat), showed only a 40 percent increase. By 1900, 50 percent of the inhabitants of Sátoraljaújhely were registered as not indigenous (i.e. born in a different locality),⁸ a figure which confirms the great role of horizontal mobility and migration. As the average number of children per household was only 1.8 in Sátoraljaújhely (1870), without migration, the population would not have increased at all.⁹ The acceleration of urbanization processes became more evident during industrialization (the population increase was only 50 percent between 1784–1825 and 1825–1870, but then it doubled in the next 40 years, exceeding the country average), making a melting pot of the town. This was reflected in its religious diversity. In 1870, 35 percent of the population was of Jewish origin, Roman Catholics constituted 30 percent, Calvinist protestants 12–14 percent, Greek Catholics approximately 18–20 percent, and there were some Lutheran inhabitants too.¹⁰

8 This value is high compared to neighboring towns and towns with similar sizes and functions. In Mukačeve (Munkács) the same figure was only 45 percent. Dányi describes Sátoraljaújhely as a “para-center.” Dányi, “Regionális vándorlás,” 99–103. Despite its development, the town was still unable to attract its larger “Hinterland” in the nineteenth century (despite the high birth rate the population decreased in the northern part of Zemplén County and in the northern part of Sáros County by 20 percent between 1880 and 1910 due to massive emigration to America and not to local centers.

9 While Eger became peripheral as major railway routes bypassed it, Sátoraljaújhely became a traffic center, an intermediate station of population movements towards Budapest. The main source area was Upper Hungary: the proportion of migrants arriving to Sátoraljaújhely from this direction was higher than that of migrants arriving from Zakarpatiya and from the regions beyond the Tisza River. Demeter and Bagdi, “Sátoraljaújhely,” Table 3.

10 The *country averages* were as follows: Roman Catholic: 52 percent, Greek Catholic: 10 percent, Calvinist: 12,5 percent, Israelites: 4.5 percent, Lutheran: 6.5 percent. So Greek Catholics and Jews were overrepresented and Roman Catholics and Lutherans were underrepresented in the town compared to national average. Katus, *A modern Magyarország*, 483.

Table 1. Population increase referring to the rate of urbanization (1825–1900) in Sátoraljaújhely compared to the surrounding significant towns

Town	Population increase (1825–1900)	Population in 1,000 (1825)	Population in 1,000 (1900)
Eger	+40%	17.5	24.5
Kassa (Košice)	+180%	13	38
Miskolc	+80%	22	40
Sátoraljaújhely	+200%	4 (1784), 6.3 (1825)	10 (1870), 19.9 (1910)

Source: Beluszky, *Magyarország településföldrajza*.

General Features of the Urban Society

The evaluation of the urban society began by creating a correlation matrix containing the quantifiable variables of the database. The correlation between demographic indicators was weak in many cases (no connection was observable between number of children and family wealth or between the proportion of earners and wealth) (Table 2), thus many of the recorded indicators can be interpreted statistically as independent variables. However, some of the indicators still showed correlations with other variables. Therefore, in order to interpret these phenomena, diagrams illustrating the internal distributions were also created. Some of the variables were not quantifiable (like religion), thus correlations could not be calculated. The relationships between these variables and other indicators were also illustrated on diagrams. In order to illustrate the internal differentiation within the dataset, both mean and standard deviation values were calculated for the whole population and were used as reference points when comparing subsets (Tables 3–11).

Table 2. Correlation between the quantifiable variables (for each family). Strong correlations are indicated by grey background

Indicator	Age	Servants	Coworkers	Total inhabitants	Proportion of earners	Number of rooms	Proportion of children	Inhabitant per 1 room	Wealth 1	Wealth 2
Age	1.000	-0.011	-0.134**	-0.047*	-0.006	-0.141**	-0.099**	0.099**	-0.158**	-0.171**
Servants	-0.011	1.000	0.097**	0.427**	-0.276**	0.513**	-0.071**	-0.122**	0.369**	0.537**
Coworkers	-0.134**	0.097**	1.000	0.408**	0.240**	0.236**	0.074**	0.152**	0.113**	0.426**

Indicator	Age	Servants	Coworkers	Total inhabitants	<i>Proportion of earners</i>	Number of rooms	<i>Proportion of children</i>	<i>Inhabitant per 1 room</i>	<i>Wealth 1</i>	<i>Wealth 2</i>
Total inhabitants	-0.047*	0.427**	0.408**	1.000	-0.560**	0.424**	0.610**	0.501**	-0.197**	0.103**
<i>Proportion of earners</i>	-0.006	-0.276**	0.240**	-0.560**	1.000	-0.194**	-0.539**	-0.330**	0.234**	0.183**
Number of rooms	-0.141**	0.513**	0.236**	0.424**	-0.194**	1.000	0.063**	-0.530**	0.613**	0.710**
<i>Proportion of children</i>	-0.099**	-0.071**	0.074**	0.610**	-0.539**	0.063**	1.000	0.523**	-0.416**	-0.304**
<i>Inhabitant per 1 room</i>	0.099**	-0.122**	0.152**	0.501**	-0.330**	-0.530**	0.523**	1.000	-0.796**	-0.601**
<i>Wealth 1</i>	-0.158**	0.369**	0.113**	-0.197**	0.234**	0.613**	-0.416**	-0.796**	1.000	0.911**
<i>Wealth 2</i>	-0.171**	0.537**	0.426**	0.103**	0.183**	0.710**	-0.304**	-0.601**	0.911**	1.000

Explanation:

Coworker: inhabitant living together with the family-head but having his or her own earnings but not his or her own home (servants are not included in this group, but craftsmen-students are); employees of the family head, or grown up relatives of the family head employed elsewhere.

Wealth 1: indicator for the economic potential of the “Wohnparthey” calculated based on an equation containing the number of household servants, coworkers, economic buildings, number of rooms, and family size.

Wealth 2: indicator for the economic potential of the “Wohnparthey” containing the number of household servants, coworkers, economic buildings, and number of rooms but not family size.

** significant, $p=0.05$. Calculated-derived indicators are indicated by italicized letters.

Base data: MNL-BAZML SFL XV. Census data from 1870.

Table 3. The size of “Wohnparthey” in Sátoraljaujhely in 1870 (prs and %)

Family members	1	2	3	4	5	6	7	8	9+	Total
household number	123	381	415	345	305	198	162	84	134	2,147
%	5.73	17.75	19.33	16.07	14.21	9.22	7.55	3.91	6.24	9434

Table 4. Inhabitant/room values for the “Wohnparthey” in Sátoraljaujhely (prs and %)

0–1	1.1–1.5	1.6–2	2.1–2.5	2.6–3	3.1–4	4+	Altogether
214	125	375	120	352	391	529	2,147
9.97	5.82	17.47	5.59	16.39	18.21	24.64	100

The general sociodemographic features of the town can be summarized as follows. The town had cca. 1,000 houses, but 2,150 registered “families,” which means that on average one house was home to at least two *Wohnparthey*s. (For example, one kitchen was often used jointly by two or three families). The average family size was 4.4 people for one *Wohnparthey* in 1870 in Sátoraljaújhely. 25 percent of the households had six or more and 23 percent had two or less members.¹¹ The average population density was three people per room, but there was significant variety. 25 percent of the households were characterized by density above four people per room. In 10 percent of the families, at least every second family member was an earner, while in 8 percent of the families the earnings of one person were enough to maintain a family of ten. The average number of rooms per family was 1.5 in the town, but here too there were considerable discrepancies, and the average value was hardly greater than the value measured in villages.¹² 50 percent of families had only one room, and 8 percent had less than one, while only 10 percent had three or more rooms.¹³ In Hungary, the average was 3.8 people per room in 1869 (and 3.5 in 1910). In Sátoraljaújhely, it was three people per room.¹⁴ Servants were abundant in only 25 percent of the households. They constituted 7.3 percent of the society. The average number of servants was 0.33 per family for the whole town. Earners without their own *Wohnparthey* constituted 10 percent of the population (978 persons), but only in 10 percent of the *Wohnparthey*s do we find more than one coworker, and 75 percent of the families had none. 28 percent of the “families” had no children (the family head was too young or was older and the children had already left the family home). In Belgrade, this figure was only 17 percent in 1900.¹⁵ On the other hand, 30 percent of the *Wohnparthey*s had more than two children (in Belgrade this was 26 percent). The average number of children was 1.8 per family. Jewish families had 2.4 children of average, Greek Catholics had only 1.4, and Roman Catholics and Calvinists had 1.6. Only 11 percent of the family heads were younger than 30. 11 percent was older than 60 (the average

11 The average for Pest County in 1896 was 4.6. Őri, “Család és házasodás,” 75. For Istanbul, this figure was 4.1 people around 1900. In some of the immigrant-dominated quarters it fell below 3.8. Based on a sample of 2,500 people, the average Bulgarian and Muslim household size in towns in the 1860s was 4.4 and 4.7 people respectively, while in Muslim villages this reached 4.9. Todorova, “Situating the family,” 452.

12 In 1930, 70 percent of the houses in Slovenia had only one room. Malojčić, *Selo i tuberkuloza*.

13 Three rooms are considered as a minimum to consider a family “middle class” according to Gerő. Thus, in Sátoraljaújhely, approximately 13 percent of the households fit into this category. Gerő, *Dualizmusok*, 149.

14 Ibid., 148.

15 Malojčić, *Selo i tuberkuloza*.

was 39). Altogether, 39 percent of the total population was under 18 years of age (the figure was similar for the whole of Hungary).

Table 5. Proportion of earners in the “Wohnpartheys” of Sátoraljaújhely in 1870 (prs and %)

0	0.1	0.2	0.3	0.4	0.5	0.6–0.9	1.0	Total
70	173	676	467	116	401	104	140	2,147
3.26	8.06	31.49	21.75	5.40	18.68	4.84	6.52	100

Table 6. Average number of rooms / family (Wohnparthey) in 1870 in Sátoraljaújhely (number of rooms and %)

Number of rooms	under 0.5	1	2	3	4	5+	Total
households	170	1,175	488	150	69	55	2,147
%	7.92	54.73	22.73	6.99	3.21	2.56	100

Table 7. The number of servants in family households in 1870 in Sátoraljaújhely (prs and %)

Servants (prs)	0	1	2	3	4+	Altogether
households	1,665	336	91	34	21	2,147
%	76%	15.65	4.24	1.58	0.98	730

Table 8. Number of coworkers and earners (not in family-head position) in Sátoraljaújhely in 1870 (prs and %)

Coworkers	0	1	2	3	4+	Altogether
households	1537	383	143	46	38	2,147
%	71.59	17.84	6.66	2.14	1.77	100

Table 9. Number of children in the Wohnpartheys/families in Sátoraljaújhely in 1870 (prs and %)

Number of children	0	1	2	3	4	5+	Altogether
households	619	462	424	303	165	174	2,147
%	28.83	21.52	19.75	14.11	7.69	8.10	100

In Belgrade these figures were 17, 34, 24, 11, 7, and 7% respectively around 1900.

Table 10. The distribution of family heads in Sátoraljaújhely based on their date of birth (prs and %)

Year of birth	–1809	1810–1819	1820–1829	1830–1839	1840–1849	after 1850	Altogether
family heads	238	447	578	645	236	3	2,147
%	11.09	20.82	26.92	30.04	10.99	0.14	100

Table 11. Demographic indicators in Sátoraljaújhely in 1870 (prs and %)

Indicator	Lutheran	Greek Cath.	Jew	Calvinist	Roman Catholic	Altogether
Total number of children	71	519	1,655	483	1,153	3,881 (39%)
%	1.83	13.37	42.64	12.45	29.71	100
number of families	41	373	692	302	735	2,143
%	1.91	17.41	32.29	14.09	34.30	100
children/ Wohnparthey	1.73	1.39	2.39	1.60	1.57	1.81

Source: MNL–BAZML SFL XV. Census of 1870.

Local Mobility – Local Networks

As the registry of 1870 offers only a “snapshot” of the social situation, and as its structure differs from the later censuses, the usefulness of this material (unlike the usefulness of parish registers, for example) to identify social networks and relationships or to trace patterns of change of residence among members of the younger generation is rather limited. But in certain cases, the registry still offers significant data on the basis of which one can venture hypotheses concerning trends or patterns in household composition. The marriage of the Calvinist noble landowner family Evva, which played a crucial role in the life of the county and had five rooms and an additional two rooms rented to Jewish grain merchants, and the influential and rich Catholic Farkas family (a lawyer dynasty with eight servants and coworkers, owning six rooms and renting two rooms to merchants) offers an example of the unification of two elite families with different social roots and belonging to different denominations. (Inter-denominational marriages were relatively rare, coming to only 15 percent of all marriages). The old family head András Evva (1805–1888) had already been mentioned prior to 1848 as the leader of the reformist political opposition in Zemplén.¹⁶ He managed to keep his position even after the repressions between 1849 and 1867, and he became the president of the county jurisdiction. His wife, Teréz Balásházy, also hailed from an old, local noble family, mentioned early in the eighteenth century as one of the “urban” noble families.

¹⁶ Veliky, *A változások kora*.

Another example of the decreasing role of religion within the noble elite is given by the Catholic Spek family. Irma (1847–), a relative of Antal Spek (1804–) who was a member of the local town council, married the Lutheran lawyer Ignác Boros and settled down in the main street of the town (Kazinczy Street) near the widow of Ferenc Spek (house nr. 651 and 655). Thus, they were able to look after each other. Furthermore, the elder daughter of the latter widow married a royal official, thus broadening the family network. We may point out *that, while at this time the intermingling traditional landowner and administrative elite had already accepted the “honoratior” layer* (highly educated non-nobles in important position) *as equal partners, the traditional elite living in the town still refrained from entering into relationships with the new financial elite.*

The tightness of the relations among relatives can often be measured through territorial concentration, as the above example showed. Social networks had spatial patterns too, but there were remarkable differences in the cases of different strata. For example, the innkeepers of the town also tended to enter into family relationships with one another, but they settled relatively distant from one another as their main aim was to distribute the market between the possible competitors in order to maximize income and minimize competition.

A comparison of other (earlier) registries with ours offers even greater potential as a method of identifying networks, social (vertical) mobility, migration processes (horizontal mobility), etc., but it also requires more work. The noble Kapy family, the richest at the end of the eighteenth century with 90 hectares of land, had almost disappeared by 1870. Apart from one young a child, only one person from this family was registered as an inhabitant in Sátoraljaújhely, the wife (1837–) of Calvinist county official József Bárczy.¹⁷ The Marchalko family was also a prominent noble family in the eighteenth century in the town, but by 1870 only one person, the Roman Catholic wife (1817–) of another Calvinist, István Somogyi, bore this name.¹⁸ This also indicates that the fusion of the elites of different origins and denominations was in an advanced phase by that time. Protestants traditionally held leading positions in the urban and county administration in Zemplén (this is a specific feature of the county), and they were overrepresented compared to their proportion in the whole urban population. Roman Catholics were mainly landlords, and their weight in the county council and the urban government was smaller in the first half of the nineteenth century.

17 Of course, migration was not the only factor. A family name might go extinct if there were no sons, and this limits the relevance of our investigations.

18 Barta, *Ha Zemplén vármegyét*, 298. 312–13.

Intermarriage and the general decline in the number of Protestants enhanced their position first on the urban council and then on the county council.

Family and kinship networks which existed at the time the registry was drawn up can also be traced, but only within limits.¹⁹ The maiden name of the wife of tailor János Keller, who lived at Papsor nr. 474, was Sztropkovics. Her mother also lived in the same household, while in the same house, but in another 'Wohnparthey' a Sztropkovics boy established a family. In this case, the relatives remained relatively close to one another because of their limited financial means. The house was divided between the two Sztropkovics descendants, and the husband moved into his mother-in-law's house. Another example of relatives from different communities living relatively close to one another reveals family and business strategies. Eszter Hell, the widow of a Jewish textile merchant (haberdasher) named Svajger, and the textile merchant Salamon Hell (who was her close relative) also lived in neighboring households (nr. 475 and 477). Another relative of her sons (the Svajger-children), Samuel Svajger also lived in the neighborhood (nr. 490, Széchenyi Square). Samuel Svajger was also a textile merchant (haberdasher). Adolf Hell, another haberdasher and relative, lived at nr. 498. Kinship and family ties also influenced business behavior. The marriage between the Svajger and the Hell merchant families promoted accumulation of capital, while it decreased competition. At the same time, the relative closeness made it easier for members of the families to provide care for widows, orphans etc.

Spatial Patterns: Religion, Occupation, Population Density

Though the town was depicted as a melting pot, the Jewish community had not been granted full rights in all fields of life in the 1860s. This naturally raises a question. Was there any segregation observable between religious communities despite the diversity? Based on the map illustrating the religious distribution of the population (Figure 2),²⁰ Jewish households were concentrated in the center of the city (they did not own the houses, but rather rented them from the local protestant elite). These houses were predominantly located at some of the major crossroads (Óhíd Str., now Dózsa Str.; Újhíd Str., now

19 The census does not mention family ties between the *Wohnpartheys*. This hinders reconstructions without the aid of parish registers. The same constraints are valid for the investigations of matrilocality or patrilocality.

20 <http://www.gistory.hu/g/hu/gistory/gismaps>. See maps: chapter 8, urban society.

Rákóczi Str.; and Malom Str., now Munkácsy Str.) which ran perpendicular to the main road, which led in a north-south direction. Despite the presence of some clusters of houses inhabited exclusively by Jews²¹ and the prohibition of interreligious marriages between Jews and Christians at the time, *we cannot speak about the segregation of Jews* for two main reasons. First, the area of the settlement in which Jews lived in high concentrations included the road where the local elite lived and the major scenes of urban life (community spaces, administrative buildings) took place. The presence of Jewish residents of the town was also traced in the secondary main road leading eastward through the Ronyva-bridge, which means that they were integral part of the town. The fact that Jews *were able to pay the high prices for rental properties in the center of the town* and that *the families of the elite lived alongside Jewish families* (see the example of the Evva family) means that (1) the *Jewish society* (or societies) *was a differentiated one* and (2) *the elite tolerated their presence, because Jews served as significant source of income for the traditional local elite, which refrained from capital investment in industry*. The second reason is that still there were intersections and blocks of a religiously mixed character.²²

Calvinists lived in houses along the main streets running north to south. Some of these streets bear the names of traditional handicrafts (Gubás Str., now Esze Tamás Str.). Thus, protestants living in homes on these streets represented the imprints of the traditional socioeconomic structure (and this also reflects their once higher proportion and prestige within the population). Their spatial pattern originally showed a continuous line along the main road, but this was broken up by 1870, and the rich Calvinists (based on population/room, total number of rooms, etc.) in the city center became separated from the Calvinists craftsmen who belonged to the lower middle-class.

Greek Catholics lived in the northern and southernmost outskirts of the town, near the vineyards (which lay to the north and northwest) and the arable lands (which lay to the south). This clearly indicates their sectoral distribution and social position. Most of them were agrarian wage laborers or craftsmen of less prestigious occupations. Roman Catholics were abundant in the city center

21 The blocks inhabited by Jews cannot be considered fully homogeneous because of the Christian servants and maids. The sources provide no information regarding the separation of Orthodox and Neologue Jews: in Sátoraljaújhely each group had a synagogue.

22 Most of the Jews in Debrecen also lived in the city center (along Hatvan Str. and Piac Str. near the Great Church of the Calvinists): 40 percent of the Jewish households dwelled in six streets. See Mazsu, "Inside borders" and Mazsu, "Piac, kereskedelem, kapitalizálódás." In Sátoraljaújhely the preference of north-south and east-west main roads was observable among Jews, and *though the east-west axis was of secondary importance regarding migration routes, it was a non-negligible direction concerning the movements of goods* (grain trade).

(mixed with Protestants) and on the fringes, which indicates advanced social differentiation among them. Jews also had a lower-class layer located on the outskirts, which was separated from the richer layers.

To summarize, though there were relatively homogeneous blocks or street sections (the Jewish blocks in the center, the streets in the north and the southeast—Kis Pázsic, Baracz—which were dominated by Greek and Roman Catholics, and the quarter inhabited by Protestant craftsmen in the south), segregation was not as characteristic of Sátoraljaújhely as it was of Bonyhád, for example.²³ *The spatial differentiation among people who belonged to different religions or denominations and people who pursued different occupations was advanced by 1870 and this differentiation was more based on social position than on the denominational differences.* Interreligious marriages constituted 15 percent of the total,²⁴ though half of these took place between Greek and Roman Catholics and 23 percent between Roman Catholics and Calvinists. Houses were often inhabited by families belonging to different denominations, and sometimes even the distribution of markets was observable: the Jewish butcher shared a house with a Greek Catholic bacon-maker. This strange phenomenon drew our attention to another one: *among butchers, Jews were overrepresented. They met the demands of their co-religionist population, but also those of other denominations. This indicates practical trust and reception of Jews in our interpretation, who were also overrepresented among merchants* (Figure 3). Another (rather symbolic) sign of their emancipation was the fact that Jews and Greek Catholics (the latter constituted the poorer half of society) were also found among the urban and county officials (represented by 1-1 scribe), who were primarily Calvinists (Figure 9).

As for the *spatial pattern of occupations*, our general observation is that industrialization was not yet advanced enough (two years before the abolishment of guilds) to ruin traditional old structures completely. Tanners still lived along the Ronyva River, as water was essential to their craft. Their downstream and upstream concentration was also not surprising. Because of the stench (a by-product of their work), they were pushed out from the surroundings of the bridge across the Ronyva, which functioned as the main supply route leading to the town's railway station. Tanners who were living downstream along the Ronyva did not affect the urban neighborhood negatively with their activity.

23 Gyimesi and Kehl, "Spatial analysis of the socio-economic structure."

24 Pozsgai registered 5–7.5 percent in the two districts and cca. 40 settlements in the rural Torna County in 1870. Compared to this, Sátoraljaújhely was really functioning as a melting pot. See Pozsgai, "Görög és római katolikus nemzetiségek."



Figure 2. Spatial patterns of religious and denominational belonging (family heads) in Sátoraljaújhely in 1870

Source: MNL-BAZML SFL XV. 83. box. 77–79.

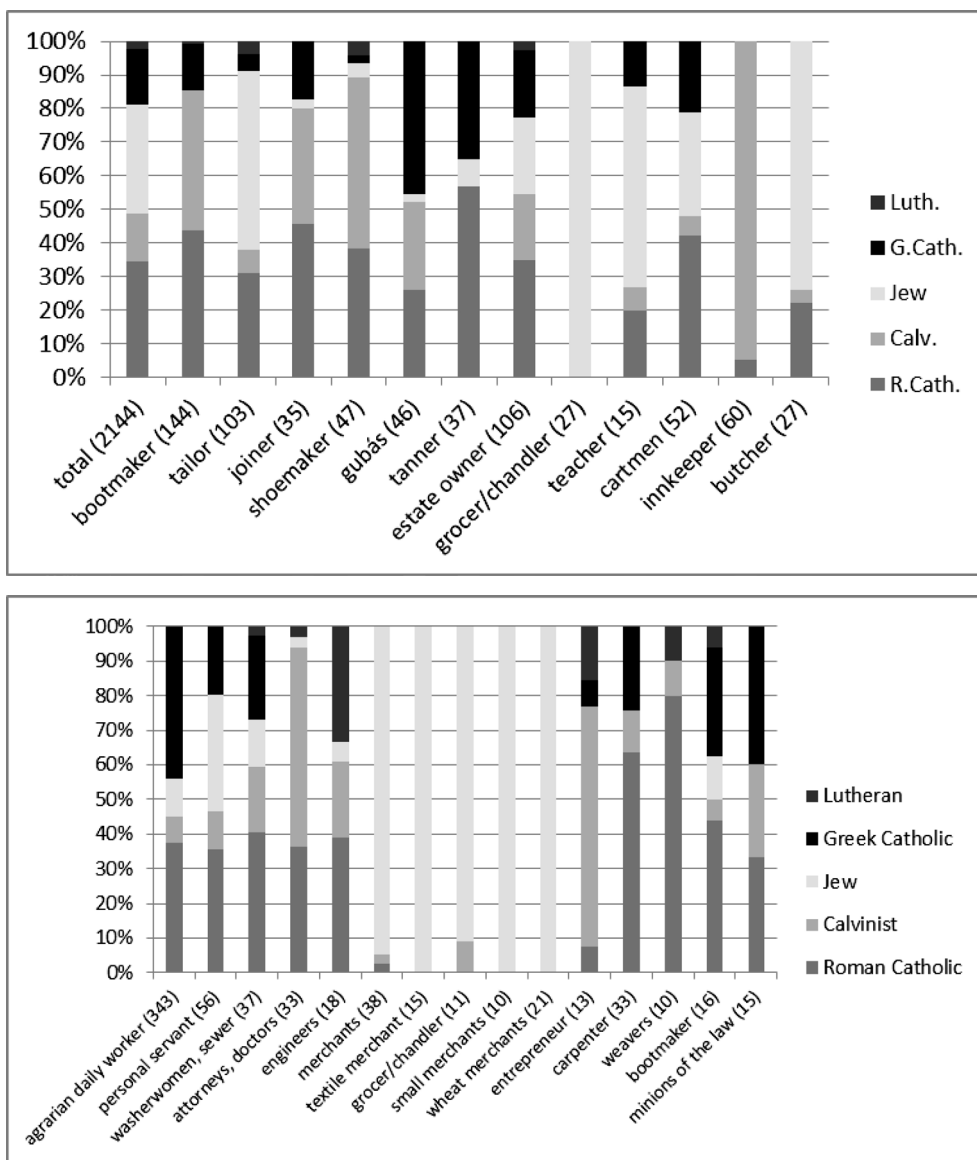


Figure 3. Religious differentiation (occupations)

The craftsmen who made heavy mantles lived mainly in the street named after them in the south (“Gubás,” from “guba,” a term used to refer to a mantle made of wool or felt) and in the north (dominated by the poor), and they were mostly Greek Catholics (for their relative wealth, see Table 22). Bootmakers, who were primarily Calvinists, lived in the southern districts on a “hidden” road parallel to the north-south main road, but many of them also lived on the

western fringes called Zsólyomka, which was also among the poorer districts. Joiners (middlemen, based on Table 22) lived scattered and evenly dispersed, while butchers were lived to the west of the main road (no butchers lived in the northern districts). Tailors lived around the town center (Figure 8).

Investigations (discussed later in detail) proved that *the location of the residences of people who pursued different occupations (i.e. the distance from the functional center of the town) correlates with the people's wealth or social prestige*. Urban and county officials lived along the north-south axis (teachers, school inspectors, state attorneys, judges, crown counsels, prosecutors), surrounded by representatives of freelance professions²⁵ (pharmacists, architects, vets, doctors, goldsmiths, private lawyers, house owners). The outer circle of the town center was dominated by assistant officials, clerks (urban, financial, insurance, postmen, policemen) and by financial experts (banking). This was followed by the zone which was inhabited by craftsmen and the outermost circle, which was inhabited by agrarian workers (Figure 8). (Servants and agrarian daily wage-laborers dominated in the northern districts, the southeastern parts of the settlement, and the west, in Zsólyomka.)

Inns, mansions, and restaurants were concentrated in the center or around the bridge over the Ronyva and in the western parts of the town near the vineyards and arable lands, from where daily-wage laborers returned tired and thirsty day after day. The first houses along the streets leading to the town also functioned as inns or restaurants to offer shelter to those who arrived on foot or by cart from the surrounding regions. (The persistence of these suburban inns indicates that railway had not yet modified the traffic patterns; Figure 8). Merchants were concentrated in the town center and the west-east road leading to the Ronyva bridge, while shopkeepers (including chandlers and grocers) targeting different layers frequently lived in the eastern and western outskirts along the main roads leading to the arable lands.

25 Supplemented by craftsmen serving the high-elite with their specialized knowledge.



Figure 4. The spatial pattern of population density (person/room) in Sátoraljaújhely in 1870

The Social and Religious Composition of Migrants

In urban environments, the role of natural reproduction in population growth has usually been smaller than that of migration. Even in the introverted Eger, which had an increase in its population of only 40 percent between 1825 and 1900 (the population of Sátoraljaújhely tripled over the course of this period), more than 75 percent of the increase was the result of migration, as the natural growth rate until 1873 was critically low (demographic pattern was characterized by high mortality beside the and a high birth rate).²⁶ In Sátoraljaújhely, the main source of population growth was also migration, which played a key role in the transformation of the city's character.

The transformation of traditional structures can also be examined by measuring the *frequency of migrant intermarriages* (and the *spatial pattern of migrant intermarriages*) alongside the frequency of *religious intermarriages* or the *spatial pattern of occupations*. (The latter two can also indicate theses transformations: a dispersed spatial pattern usually indicates the dissolution of original structures). Altogether, 33 percent of family heads were indigenous to the settlement, while the proportion of local-born wives was somewhat higher, reaching 45 percent. This means that the male population was more mobile and also that local-local marriages could not have been more than 30 percent in the town.²⁷ In contrast, in the more traditional southern districts (note the abundance of guildsmen occupying certain jobs *niches* based on religious differences), which comprised 33 percent of the households, *marriages between local born males and females* reached 50 percent (178 cases). This indicates a higher degree of *introversion* in this district of the town. On the other hand, *immigrant-immigrant marriages* were overrepresented in the north. The latter indicates the belated integration of certain layers. Immigrant-indigenous marriages had no spatial pattern.

The *changes in religious proportions* also refer to transformations. The proportion of Calvinists decreased from 18 percent in the 1840s below the country average by 1870,²⁸ while that of the Jews increased from 17 percent to 35 percent (their share among children was even higher, 42 percent in 1870). It fell back to 29 percent by 1910. (The increasing presence of Jews usually indicated industrialization and the emergence and spread of capitalism in Hungary). The proportion of Greek

26 The demographic transition in Hungary began only after the last great cholera epidemics (1873).

27 The proportion of the indigenous population reached 50 percent only together with the children, among whom immigrants were rare.

28 Their representation in the urban and county elite was traditionally higher.

Catholics gradually decreased from 23 percent to 15 percent, which, given their primary occupations (for the most part, they were agrarian wage laborers and low-prestige craftsmen and artisans), also indicates transformations in general (Table 12).

These changes were partly driven by the changes in migration patterns and social strategies and partly by the different birth rates of the different denominations. Our database offers possibilities to estimate the role both of migration and natural growth rate for religious communities, and to reconstruct the social strategies of classes and denominations.

Table 12. The change in proportion of religious denominations in Sátoraljaújhely between 1840 and 1910

Year, %	R. Cath.	Greek Cath.	Calvinist	Lutheran	Orthodox	Israelite	Altogether
1910, prs	7,936	2,943	2,878	381	34	5,730	19,902
1910, %	39.9	14.8	14.5	1.9	0.2	28.8	100
1870, prs*	3,335	1,676	1,195	155	12	3,215	9,946*
1870, %	34.5	17.0	12.5	1.6	0.1	33.5	100
cca. 1840, prs	2,401	1,464	1,174	120	26	1,125	6,310
cca. 1840, %	38.1	23.2	18.6	1.9	0.4	17.8	100

* only 9587 known cases.

It is not surprising that the proportion of immigrants was higher among the cohort of 20-30 year old (over 65%), than among the inhabitants between 50 and 60 years (50%). More interesting conclusions can be reached when investigating the subsets of the social classes, occupation groups, and denominations. The proportion of indigenous people exceeded the urban average only among the Jewish family heads (45 percent) and their wives, so the Jewish community must have been the most insular. This is surprising compared to old *topoi* and their behavior in other towns.²⁹ The growth in numbers was the result of the high internal reproduction rate (an average of 2.4 children/Jewish *Wohnpartbey*) and not of immigration (Table 11). The decrease in the proportion of Jews in the town after 1870 (Table 12) despite the high number of children may indicate that Jews reached the “saturation

29 In the larger city of Debrecen (which at the time only had 2,000 Jewish inhabitants), only 30 percent of the Jews were local-born. Another 20 percent was indigenous in the county, and another 30 percent arrived from the northeast. The average size of the 340 Jewish households indicates larger family sizes (5.5) than the town average, as was also true in Sátoraljaújhely (4.5). See Mazsu, “Inside borders.”

point”: the town as a market did not have a demand for the professions typically practiced by Jews at that stage and pace of development, and this made it less appealing for potential Jewish immigrants and increased competition for the niches among the different factions.³⁰

In contrast, *Lutheran family heads were dominantly immigrants*. Many of them were foreigners with special skills and occupations who *came as experts to meet the demand generated by industrialization*, which Hungarian schools were not yet able to cope with. The number of Lutherans in the town tripled between 1840 and 1910, a pace of growth which equaled the average growth rate of the whole town. The average number of children among them was only 1.8, which means that migration played a larger role than natural growth. (On the other hand, Lutheran family heads were somewhat younger than the average, as were Greek Catholic family heads, and this also explains the low birth rate within their households).

Among the *Greek Catholic* family heads, the proportion of newcomers was 75 percent, thus *the gradual decrease in their share of the total population can be explained by their low birth rate* (an average of 1.4/*Wohnparthey* in 1870) and by religious intermarriages. They were also relatively poorly off from the perspective of their social situation (the proportion of *Wohnpartheys* with only one room or less was the highest among them). The proportion of indigenous Roman Catholic family heads (compared to local Roman Catholic family heads) was also below the town average. The *Calvinists* tried to “balance” their bad demographic indicators (an ageing society with less than the average number of children) by relying on immigrants. Regarding the origins of wives and husbands, there was a great difference measured in the case of both Roman Catholics and Calvinists: *mainly the men were newcomers, while most of the wives were local born inhabitants* (Table 13).

Considering the group of *coworkers and employees*³¹ the share of *Jews* reaching 25 percent was well below their proportion measured among family heads and wives. This means, based on the general character of this social category comprising dominantly craftsmen,³² that *among Jews, the significance of traditional guild-industry was of secondary importance*. Though after 1848, Jews were allowed to work in guilds, they still tended to take other occupations. The proportion of *Calvinists* among employees (18 percent) was higher than their share of the total city population (12–13 percent), which *implies a more traditional social structure* and a strategy differing from that of the Jews. In the case of the Calvinists, employers

30 The Jews in Sátoraljaújhely were divided among traditionalist, modernist, and “status quo ante” factions.

31 Without own home/*Wohnparthey*, cca 1000 persons.

32 Pharmacists, assistant teachers, waiters, and merchant-assistants were also grouped here.

showed a preference in their selection of employees/coworkers for other Calvinists. This preferential cooperation meant that a Calvinist guildsman was more likely to choose a Calvinist apprentice. This does not imply exclusiveness, however. Calvinists also hired Roman Catholic apprentices. This also meant that the children of lower middle-class Calvinists were more likely to turn to handicrafts than to pursue other occupations, and they were more likely to pursue these crafts than the children of Jews and Lutherans. *These differences in strategies based on religion/denomination indicate the persistence of old structures.*

Among the social group of *servants*, the proportion of Greek and Roman Catholics (26 and 41 percent respectively) exceeded their share of the total population, while Calvinists (9 percent) and Jews (15 percent) were underrepresented. This also reflects the different strategies they adopted in the pursuit of a livelihood. Jews, for example, tended to employ non-Jewish immigrants as servants, much as Calvinists tended to employ non-Calvinists.

Among *employees and coworkers* (without their own *Wohnparthey*), the proportion of *local-born* (except for the Jews with their 51 percent) remained under the city average (40 percent) (Table 13). The high share of local-born Jews among employees also indicates an insular society and a strategy differing from that of the Christians. In contrast with Jews, Calvinists preferred immigrants as coworkers and employees. The proportion of Roman Catholics among immigrant employees reached 40 percent (overrepresented compared to the proportion of Roman Catholic family heads and their wives). The share of Calvinists reached 22 percent (also overrepresented, much as Greek Catholics were too, with their 22 percent), while the proportion of Jews in the town remained around 20 percent. In contrast, *in the whole set of coworkers and employees* (including indigenous and immigrant), Roman and Greek Catholics were underrepresented compared to their share of the total population (24 percent vs. 33 percent of family heads and 11 percent vs. 17 percent of family heads, respectively). This means that the proportion of indigenous Greek Catholic employees was small and also that their proportion was high among *servants*. In the case of these two denominations, low-prestige fieldwork dominated among immigrant employees (as their geographic location within the town confirmed earlier).

Among *the local-born servants and housemaids*, Roman Catholics were overrepresented (while among employees they were underrepresented). *85 percent of the servants and housemaids were immigrants*, which indicates that *the strategy of local-born, lower-class/declassed people aimed to avoid these lines of work by becoming apprentices or coworkers*. Among *newcomer* servants, Greek Catholics comprised 26 percent (a

higher value than their share of the total urban population), while Jews reached only 15 percent (Table 14).

Table 13. The proportion of immigrants among occupational (family head-earners; employees-coworkers; servants and maids) and denominational groups

Family-heads*	Total persons	Local-born (%)	<i>Local-born (%)</i>	Wives	Total persons	Local-born (%)	<i>Local-born (%)</i>
Lutheran	41	12.2	0.7	Lutheran	33	27.3	1.1
Gr. Cath.	373	24.4	12.5	Gr. Cath.	309	33.0	12.6
Jew	692	44.5	42.5	Jew	619	47.3	36.2
Orthodox	3	33.3	0.1	Orthodox	5	60.0	0.4
Calvinist	302	35.8	14.9	Calvinist	193	60.6	14.4
R. Cath.	735	28.8	29.2	R. Cath.	552	51.6	35.2
Altogether	2147	33.8	100	Altogether	2147**	37.7	100

Coworkers, employees	Total persons	Local-born (%)	<i>Local-born (%)</i>	Servants, maids	Total persons	Local-born (%)	<i>Local-born (%)</i>
Lutheran	10	20.0	0.8	Lutheran	8	0.0	0.00
Gr. Cath.	109	24.0	10.8	Gr. Cath.	135	9.6	21.6
Jew	146	51.4	31.4	Jew	80	12.5	16.6
Calvinist	110	25.5	11.7	Calvinist	50	10.0	8.3
R. Cath.	212	27.0	23.8	R. Cath.	216	14.4	51.6
Altogether	600	40.0	100	Altogether	520	11.5	100

* Including widows (women) registered as family-heads.

** The difference between the number of Wohnparthey and the partial sums is due to the cca. 200 widows and widowers (10%) divorced and yet not remarried.

Table 14. The distribution of immigrants (%) based on religion and social groups

	All family heads as a %	Immigrant family heads as a %	Immigrant wives as a %	Immigrant employees as a %	All employees as a %	All servants as a %	Immigrant servants as a %
Lutheran	2.0	2.7	2.7	2.2	1.6	1.5	1.7
Gr. Cath.	17.0	19.8	22.2	21.0	18.1	26.0	26.5
Jew	33.2	27.0	36.3	19.6	24.3	15.4	15.2
Calvinist	12.5	13.6	8.4	21.7	18.3	9.6	9.8
R. Cath.	35.1	36.8	29.6	41.0	35.3	41.5	40.2

The theoretical aggregated value in columns is 100% – differences are due to lack of data and rounding errors.

Social stratification of immigrants

With regards to the social elite (the methods according to which we have defined this group and identified the people who belonged to it are discussed later), in the case of family heads, 25 percent were born in Sátoraljaújhely. In the case of wives, this figure was a bit higher, 33 percent. This indicates the generally smaller horizontal mobility of women at time. Compared to the figures in the city of Eger, this still indicates an open society.³³ Among the lower-class and deprived (for instance agrarian wage laborers and washerwomen, sewers, bread-makers, etc.), the proportion of local-born people was also low, around 30 percent (in the case of their wives, it was 37 percent), while in the case of the middle class (for instance merchants, innkeepers, shopkeepers, and chandlers), the figures were 40 and 48 percent, respectively. In the case of landowners, the proportion of local-born urban dwellers was around 50 percent, and in the case of people earned their livelihoods doing handicrafts, it was similarly high (41–58 percent). Thus, the latter two occupational groups can be considered the basis of the *indigenous* middle-class (Table 15).

Table 15. The proportion of *local-born* husbands and wives in 1870 in Sátoraljaújhely

Group	Husband (persons)	Wife (persons)	Husband, (local) %	Wife (local), %
elite, official elite, freelance professions	59	81	25	33
merchants, chandlers	140	166	40	48
artisans, craftsmen	278	396	41	58
poor, lower-class (cartmen, footmen, sewers, rag-pickers, washerwomen, itinerant merchants, etc.)	156	208	30	36
smallholders and large estate owners	54	57	46	49

The abovementioned “openness” of Sátoraljaújhely (which is a feature of towns which were becoming increasingly industrialized) is indicated by another fact: *among the immigrant earners, the share of those who belonged to the elite was higher than among the local-born society* (Table 16), in contrast with the situation in Eger.³⁴ In Sátoraljaújhely *local-born earners were overrepresented within the middle class, while lower layers were dominated by newcomers*. However, the proportion of immigrants working

33 Demeter, “A dualizmus kori Eger.”

34 In Eger, the elite was underrepresented within the immigrant society. In the middle class, artisans were overrepresented, while lower “national” officials (porters, policemen, postmen) were recruited from local-born people.

in the agrarian sector did not exceed the proportion of local-born working in the same sector. From the perspective of their numbers and their share of the total population, *newcomers were overrepresented among the industrial and tertiary low-wage earners.*

The comparison of earners in the comparatively secluded city of Eger (a nearby county seat), the small town of Varannó (Vranov; a district center in Zemplén County), and Sátoraljaújhely (the county seat of Zemplén) yielded interesting results (Table 16). The lower middle class was the largest in the traditional Eger (this was particularly true of the autochthonous population), and the lower classes and middle class were both thinner (partly because of the larger lower middle class, partly because of the lack of industrial workers). The elite was also the broadest in Eger (15–20 percent vs. 3.5 and 7 percent; with its *Lyceum*, the town was able to reproduce its intelligentsia),³⁵ despite the smaller significance of the elite among immigrants.³⁶ In Varannó, the lower class was thin among immigrants, while among the autochthonous population lower layers were underrepresented).³⁷

Table 16. The social stratification of the earners' society in Eger, Varannó and Sátoraljaújhely towns

Layer	Varannó, total (%)	S.újhely, total (%)	Eger*, total (%)	Varannó, migrant (%)	S. újhely, migrant (%)	Eger*, migrant (%)	Varannó, local-born (%)	S. újhely, local-born (%)	Eger*, local-born (%)
Elite	7.1	3.4	20	8.1	3.8	12	5.8	2.5	22
Middle	48.3	41	33	40.8	36	49	58.2	50	25
Lower middle	6.1	3.5	24	8.6	3.3	12	2.9	5	28
Lower	38.5	52	22	42.5	58	25	33.1	39	20
Total (prs)	100% (720)	100% (2,656)	100% (800)*	100% (409)	100% (1,783)	*	100% (311)	100% (873)	*

35 In the case of Eger, the use of sources of a different character, namely the parish registers, limited the reliability of the classification and the comparison. The statistics were based on 167 marriages from 1883, where the occupation and place of origin of the husband, the husbands' father, and the wives' father were mentioned too.

36 In Eger, the local elite was also stronger compared to the immigrant elite society (22 vs. 12 percent).

37 In Varannó, the officials, bureaucrats, and lower-ranking state officials were all immigrants. Lacking a secondary school, the townlet was unable to reproduce its elite. Merchants, artisans, and entrepreneurs were underrepresented among immigrant earners (constituting 57 percent of all earners in Varannó, but 67 percent in Sátoraljaújhely, Table 17). 60 percent of the locals were classified into the middle classes (among migrants, this figure was only 40 percent). 33 percent of the local-born society was poor. 42 percent of the migrant society was poor.

Social stratification based on Ferenc Erdei's theory of "staggered society" and the prestige of occupations according to Max Weber.

* Data for Eger are from 1883 based on marriages in parish registers (sample size cca. 250. The town was predominantly Roman Catholic)

Sources for Sátoraljaújhely and Varannó: MNL-BAZML SFL XV. Census of 1870;

Source for Eger: MNL-HML IV-416. Marriage registers from 1883.

Table 17. The representation of migrants in different social layers of Varannó and Sátoraljaújhely

Layer	Immigrants (%) of the layer, Sátoraljaújhely	Immigrants (%) of the layer, Varannó
Elite	74	65
Middle	60	48
Lower middle	62	80
Lower	75	63
<i>Total</i>	<i>67 (1,783 immigrants)</i>	<i>57 (409 immigrants)</i>

Measuring Wealth and Social Differentiation: Methods, Spatial Patterns and Internal Differentiation Among Layers

In order to illustrate both spatial patterns and the distribution of wealth among social groups, wealth levels first had to be quantified. As income data were not available, we had to rely on the indirect census data referring to wealth. Because of this, the relevance of our investigation is limited. In order to reduce the subjective elements when classifying the single families into social groups, three different methods were tested.

The first method was based on Marxist sociologist and politician Ferenc Erdei's concept of the so-called "staggered society." Erdei contended that, in Hungary, each traditional class had a modern, capitalistic variant, and these variants existed in parallel and coalesced only gradually. We combined this theory with Max Weber's classification based on the social prestige of given occupations. Though Erdei's theory has been challenged and the classification based on Weber is considered too subjective, abandoning these old classifications and relying only on modern ones would render our investigations incomparable with old results. The results of this classification, including a sectoral distribution too, can be seen in Table 18 and 19.

Table 18. Social groups based on Erdei's model of a "staggered" society and on the prestige of occupations (Weber) (method 1; prs and %)

e ¹	town and county elite	lawyers, chief clerks (state servants)	47	2.2% ²
f	landowners	mainly middle estate owners	116	5.4%
p	freelance civil professions	teachers, doctors, railway engineers, photographers, clockmaker	91	4.2%
h	officials	state (lower class compared to 'e') and private (in banking and finances)	108	5%
g	agrarian experts	not independent but highly skilled agrarian wage-earners	34	1.6%
n		policemen, pandurs, postmen, etc.	30	1.5%
kk	merchants	innkeepers, railway entrepreneurs, merchants	216	10.1%
k, ka		lower financial officials (clerks), poor merchants, chandlers, grocers	151	7.0%
m	craftsmen	guild members: tailors, potters, bootmakers, etc.	677	31.5%
q	lower tertiary	transportation: cartsmen, waiters	60	2.8%
s	poor	daily wage earners in agriculture, beggars, bakers (women), washerwomen, scrap-iron collectors	508	23.7%
ö	widows		101	4.7%

Layers wealthier than the city average are indicated by grey.

1 Abbreviations used in maps and in charts.

2 This table did not contain data on 1,100 coworkers and 700 servants, thus the percentage values refer to 2,150 people and not to 4,000.

Table 19. Hypothetic social stratification based on the prestige of occupation (family heads; %)

Group	Agrarian	Industrial		Tertiary	Private tertiary	Altogether	%
Upper	f (116)			e (47)	p (91)	cca. 250	12%* (7%)
Middle	g (34)		kk (30)	h (108)	kk (190), h	cca. 550	25% (25%)
Lower middle				n (30)	k (132)	cca. 500	23% (25%)
Lower			s (343)			s (160), q (60)	570 + some craftsmen = 800
Total	cca. 500	cca. 700		cca. 200	cca. 600	cca. 2100	+101 widow
%	25%	35%		10%	30%	100%	households

* Servants or coworkers *not registered as family heads were omitted*. See corrected % values including these layers in brackets.

These categories do not strictly refer to wealth or social status. Group “p” was traditionally considered as the part of the elite, although the wealth and economic power of the civil professions (including state teachers) was significantly weaker than that of groups “f” (landowners) and “e” (official-bureaucratic elite) based on number of rooms and the other two classification methods described later. Category “f” was also not homogeneous regarding wealth. Smallholders and large estate owners were also included here because of the lack of census data concerning estate size. Freelance civil professionals and state clerks were underrepresented in Sátoraljaújhely compared to other towns with similar functions, where their proportion exceeded 15 percent of the earners. Compared to this, the layer of merchants (kk, k) was quite strong (17 percent), possibly as the result of relatively high number of Jews in the town and its geographical location. The proportion of craftsmen (m) was high, but not remarkably. The same percent was measured in the larger city of Debrecen.³⁸

The sectoral distribution of these groups is given in Table 18b. 35 percent of the family heads were involved in industry, but modern industrial branches were represented only by some 10 percent of the total family heads involved in industry. Guilds still dominated in this transitional period. The private tertiary reached 30 percent, reflecting the transformations (urbanization), while agriculture had already lost its dominant position (25 percent).

The *second classification* was based on quantifiable socioeconomic indicators derived from the census sheets (number of rooms, auxiliary buildings, number of servants, number of employed workers, household size). We used an *equation* to aggregate the values of the single indicators for all families, resulting in a dimensionless number, which refers to the *per capita economic potential of the family*. Based on the method of natural breaks, the 2,147 *Wohnpartheys*/families were divided into 13 groups of different sizes. The aggregated values in group 9–13 (comprising 30 percent of the households) exceeded the total town average (Table 20).

38 Widow(er)s (family heads) were treated separately, as we did not have information about their professions.

Table 20. The sociodemographic features of the 13 “social groups” (i.e. groups with different levels of wealth) defined by the method based on the equation using socioeconomic indicators (values above the average are indicated by bold letters: the average represents intergroup differences, standard deviation represents within-group differences)

Social group based on equation		Average number of children	Average number of servants	Household size	Proportion of earners	Average number of rooms	Average inhabitants per room
1 (127, 6%)	Mean	2.09	0.01	4.07	0.29	0.51	7.84
	St. Dev.	1.60	0.09	1.73	0.20	0.39	3.61
2 (140, 6.5%)	Mean	2.24	0.01	4.32	0.28	0.81	5.31
	St. Dev.	1.75	0.12	1.90	0.19	0.30	1.63
3 (233, 11%)	Mean	2.26	0.03	4.37	0.24	0.99	4.70
	St. Dev.	1.50	0.20	1.60	0.10	0.29	2.43
4 (258, 12%)	Mean	1.65	0.04	3.81	0.33	1.06	3.60
	St. Dev.	1.62	0.20	1.91	0.19	0.37	1.51
5 (158, 7.5%)	Mean	2.36	0.11	4.63	0.28	1.20	4.10
	St. Dev.	1.77	0.32	1.92	0.16	0.49	1.65
6 (203, 9.5%)	Mean	1.87	0.11	4.17	0.33	1.22	3.52
	St. Dev.	1.89	0.33	2.19	0.15	0.49	1.62
7 (264, 12%)	Mean	1.43	0.18	3.64	0.45	1.36	2.75
	St. Dev.	1.73	0.40	2.24	0.30	0.58	1.64
8 (104, 5%)	Mean	1.94	0.36	4.55	0.35	1.60	2.91
	St. Dev.	2.00	0.59	2.55	0.20	0.77	1.50
9 (164, 7.5%)	Mean	1.63	0.37	4.37	0.39	1.78	2.64
	St. Dev.	1.62	0.59	2.42	0.25	0.83	1.58
10 (151, 7%)	Mean	1.28	0.49	3.90	0.43	1.95	2.10
	St. Dev.	1.61	0.70	2.33	0.27	0.77	1.39
11 (83, 4%)	Mean	1.51	0.70	5.01	0.42	2.17	2.52
	St. Dev.	1.69	0.79	2.95	0.30	1.07	1.65
12 (99, 4.5%)	Mean	1.60	0.88	5.14	0.41	2.59	2.18
	St. Dev.	1.70	0.97	2.99	0.29	1.28	1.45
13 (162, 7.5%)	Mean	1.69	1.87	6.57	0.37	3.73	2.04
	St. Dev.	1.89	1.62	3.87	0.26	1.66	1.64
<i>Total (2,149)</i>	Mean	<i>1.81</i>	<i>0.34</i>	<i>4.39</i>	<i>0.35</i>	<i>1.53</i>	<i>3.50</i>
	St. Dev.	<i>1.74</i>	<i>0.80</i>	<i>2.45</i>	<i>0.23</i>	<i>1.09</i>	<i>2.28</i>

The *third classification* was also based on a quantitative approach using the same socioeconomic and demographic indicators, but this time *automatic cluster analysis* was used. (The subjective element here was the setting of cluster numbers. The reliability of this method was validated by discriminant analysis). As this classification did not contain family size as a variable, the results indicate the *economic potential of the Wohnparthey as a whole*.

Though automatic classifications usually lack any preconception (unlike *method 1*, based on the prestige of occupation), *groups with well-definable social characteristics were generated when applying cluster analysis*. Cluster 6, cluster 5, and cluster 1 were easily distinguishable from one another based on their socioeconomic characteristics (Table 21: the success rate of reclassification was above 90 percent here).³⁹ The boundaries of other groups were unconsolidated, fuzzy (*groups 2, 3, and 4*).⁴⁰ The fuzzy *cluster 2* had one specific, conspicuous, distinctive feature: the proportion of Jews here was over 50 percent, which exceeded the town average (34 percent) and the proportion of Jews measured in other clusters. It seems that automatic *clusterization confirmed the existence* of the so-called “*par excellence Jewish-middle class*,” a layer that evolved parallel to the traditional middle class during the process of emancipation and the spread of capitalism, as supposed by Erdei. Its “fuzziness” indicates its transitional, unconsolidated character (as well as its wealth conditions), which also reflects its potential for assimilation to other groups.

Table 21. General sociodemographic characteristics of groups created by automatic clusterization of households

Cluster 6:	the poor: high children ratio, low proportion of earners, number of rooms under one
Cluster 5:	the poor: no servants, small household size (3 prs!), number of rooms around one
Cluster 1:	the rich: more than 2 servants, a low proportion of earners (0.2 – contrary to groups defined by the previous method, where it was over 0.4 – revealing that the two methods of defining the elite are not equivalent!), number of rooms around 4
Cluster 2:	the proportion of Jews within the group is over 50%: ‘ <i>par excellence Jewish middle-class</i> ’

39 Discriminant analysis was applied as a control for clusterization.

40 The success rate of reclassification by discriminant analysis was low, under 50 percent.

To test the correspondence/overlap of the three methods, a cross-tabulation matrix was created, which proved that, although there was a 70-70-70 percent overlap between the results of the 3 methods and the correlation coefficient was higher than 0.7, the three classifications are not equivalent (Figure 6). For example, the richest three groups (11–13) consisted of 341 families (15 percent) in the case of the *second method* (i.e. the equation referring to per capita economic power), while the richest two clusters comprised 332 family heads (*the third method*), but only 192 of the cases were common (60 percent).⁴¹ This means that *the interpretation of the results is not independent from the selected method*. Thus, in order to avoid preconceptions during generalization (i. e. the classification of earners into “social groups”), the economic potential was calculated for the *different occupations* as grouping variables, too (Table 22). Lawyers and doctors (33 persons), the thin layer of engineers and entrepreneurs, the 60 merchants, and the 60 innkeepers proved the wealthiest according to all three different calculations (see rankings in Table 22), though their household structure was quite different (for instance the number of children, proportion of earners, etc.).

Was social differentiation advanced at the time? According to Williamson, income inequalities (including both spatial and social differences) regularly grew in the first stage of capitalist transformations. Due to the *lack of income data*, we cannot test the relevance of this thesis. But based on “*complex economic potential*” calculated on the basis of the equation comprising socioeconomic indicators, some sort of social differentiation became measurable. The richest 15 percent of the *Wohnpartheys* comprised 20 percent of the cumulative wealth (for the sake of comparison, this figure could reach 40 percent in Ottoman towns in the eighteenth century).⁴² The second richest 15 percent was not significantly poorer than the first group. Altogether, one-third of the families (750) had higher per capita economic potential than the city average, and they accounted for 50 percent of the total wealth. The poorest 50 percent shared 25 percent of the total calculated wealth (see Figure 5 and compare it with the differences observed between the wealth levels and sizes of groups “e” and “s” in Table 18). In other words, *the richer 50 percent of the population was three times richer than the*

41 They could be considered the “core elite,” followed by a “buffer-transition” group of an additional 100 families.

42 Canbakal and Filiztekin, “Wealth and Inequality.”

Table 22. The sociodemographic features of occupations
(values under the average are indicated by *Italic letters*)

Occupation	Average number of children per family	Proportion of earners	Average number of rooms	Inhabitant / room (avg.)	Average wealth (equation)	Average household size	Average number of servants	Average coworker number	Relative ranking based on wealth (equation)	Relative ranking based on cluster-membership	Relative ranking based on number of rooms
lawyer and doctor (33)	<i>1.39</i>	0.36	3.64	1.43	4.01	5.36	1.91	<i>0.24</i>	1	1	1
innkeeper, restaurant owner (60)	2.9	<i>0.27</i>	2.32	2.77	2.39	5.73	0.68	0.42	5	2	2
landowner (106)	2.03	0.35	2.3	2.92	2.66	4.85	0.82	0.39	2	3	3
wheat and flour merchant (21)	2.48	<i>0.22</i>	1.81	3.69	1.35	5.62	0.57	<i>0.05</i>	11	4	8
merchant (38)	0.83	0.46	1.89	1.85	2	<i>3.28</i>	0.83	<i>0.06</i>	3	5	5
engineer (18)	0.83	0.46	1.89	1.85	2	<i>3.28</i>	0.83	<i>0.06</i>	4	6	6
joiner (35)	1.69	0.39	1.84	3.52	2.24	5.57	<i>0.23</i>	1.63	6	7	7
entrepreneur (13)	2.23	<i>0.23</i>	2.08	2.67	1.35	4.85	0.31	0.31	7	8	4
butcher (27)	2.15	<i>0.27</i>	1.56	3.76	1.25	5.04	0.44	0.44	9	9	10
tanner (37)	1.86	0.36	<i>1.27</i>	3.58	1.21	4.22	<i>0.19</i>	0.41	12	10	16
craftsmen who made heavy mantles (46)	1.57	0.37	1.34	3.06	<i>1.02</i>	<i>3.93</i>		0.7	17	11	13
bootmaker (144)	2.19	0.37	1.33	<i>4.01</i>	<i>1.03</i>	4.78			14	12	14
Total sample	1.81	0.35	1.52	3.52	1.49	4.4	0.34	0.46	13	13	11
grocer, Chandler (27)	2.63	<i>0.25</i>	<i>1.19</i>	<i>4.39</i>	<i>0.81</i>	5	0.41	<i>0.11</i>	18	14	18
teacher (15)	2.27	0.32	1.77	2.91	1.22	4.67	0.53	<i>0.07</i>	10	15	9
tailor (103)	1.81	0.37	<i>1.33</i>	3.67	<i>1.16</i>	4.52	<i>0.17</i>	0.64	15	16	15
shoemaker (47) ¹	1.55	0.33	1.36	3.67	<i>1.16</i>	4.87	<i>0.19</i>	0.79	16	17	12
bread-maker and sewer women (37)	<i>1.51</i>	0.61	<i>1.2</i>	2.58	1.46	2.78	<i>0.03</i>	0.54	8	18	17
cartmen (52)	1.75	0.35	<i>1.03</i>	<i>4.05</i>	<i>0.87</i>	4.12	<i>0.17</i>	<i>0.19</i>	20	19	19
personal servant (55)	<i>1.36</i>	0.48	<i>1</i>	<i>3.93</i>	<i>0.79</i>	3.27	<i>0.11</i>	<i>0.29</i>	19	20	20
agrarian wage laborer (343)	<i>1.28</i>	0.39	<i>0.86</i>	<i>4.41</i>	<i>0.54</i>	3.28	<i>0.01</i>	<i>0.15</i>	21	21	21

1 Shoemakers were not considered wealthy by contemporary writers. Among Jews, this was a despised (but frequent) occupation according to Sölem Áléchem.

*poorer half. This inequality is not considered great compared to other regions in the world at the time.*⁴³

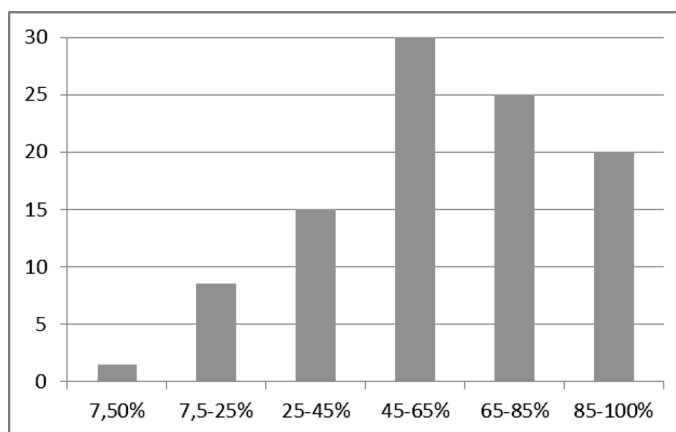


Figure 5. The distribution of economic potential (vertical axis) between groups of families (horizontal axis) as a %

The society was quite differentiated even based on single indicators, such as number of rooms, which indicated differing levels of wealth. Only 22 percent of the families had two rooms, and only 10 percent had three or more rooms (Table 6). On the other hand, the average 1.5 room/family is not greater than the value measured in Belgrade after 1900.⁴⁴ While the average population density was 3.5 persons/room (and in 25 percent of households there were four or more inhabitants per room), in wealth groups 9–13 (representing 15 percent of *Wohnpartheys*), this improved to 1.5 person/room.⁴⁵

The classification results also confirm, that our pre-defined categories (method 1: based on the prestige of occupation) “e,” “f,” “kk,” and “h” are considered the richest, followed by “p.” Thus, our preconception is not flawed (Table 23). The minor differences between the cluster-based and equation-based

43 The richest 2 percent owned 25 percent of wealth in China. In New-Spain, the richest 10 percent owned 55 percent of the wealth in 1790. In Bihar (India), in 1804 the richest 20 percent owned 50 percent of the wealth, and in Naples in 1811 the richest 10 percent owned 33 percent of the wealth. Milanovic, Lindert and Williamson, “Measuring Ancient Inequality.”

44 In Belgrade 60 percent of the *houses* had not more than one room in 1907 (as in the case of *Wohnpartheys* in Sátorajújhely), but the density was 3.5 prs/house, while in the Hungarian town it was 9 prs (calculating with two households/house). Vuksanović-Anić, “Urbanistički razvitak Beograda,” 458–65.

45 The narrow elite (group 11–13) was characterized by a low number of children, but this was equalized by the auxiliary workforce (Table 19). The proportion of earners was higher than the city average. The average population density (prs/room) and number of rooms in the households of the elite (above two) were similar to the figures measured in groups 9 and 10.

classification are due to the fact that the latter measures *total wealth of a family* regardless of family size. Group “f” is considered poorer if *per capita wealth* is calculated (instead of household wealth), *because agriculture was (and remained) a labor intensive sector in Hungary, traditionally characterized by larger family size.*

As for the internal differentiation among these groups, 90 percent of family heads had two or more than two rooms in group “e.” This figure was 60 percent in group “f,” 70 percent in groups “kk” and “Hungary,”⁴⁶ and only 40 percent among households in category “p” (freelance professions).⁴⁷ In the case of layers “s,” “q,” and “n,” 60 percent of the families were classified into the poorest four categories (1–4), while this was under 10 percent among inhabitants grouped into categories “kk,” “f,” “p,” “e,” and “h.” In these latter categories, the wealthiest four (9–13) constituted 40–70 percent of these groups (Figure 6). This figure reached 70 percent in group “e” (official-bureaucratic elite) and only 40 percent in group “p” (freelance professions).

These data also reflect the *weakening of the traditional agrarian elite* (or the fact that smallholders were also included in this group), *but the merchant elite was not yet strong enough to take over the positions of the bureaucrats. The agrarian elite successfully transformed its economic power into political power, while the positions of people with freelance occupations were relatively weak compared to those of the state bureaucracy.* As groups 9–13 represent a broad swath of more than 600 hundred families, it is not surprising that some artisans (20 percent) also appear in these aggregated groups.

Table 23. The rankings of the social layers pre-defined by prestige of occupation – using the two different statistical classification methods (cluster-based; equation-based)

	e (47)	h (108)	f (116)	kk (214)	p (91)	ö (101)	Total (2149)	k (132)	m (677)	g (34)	q (60)	n (30)	s (508)
average cluster membership	2.45	2.8	3.2	3.06	3.71	3.85	3.93	3.91	3.97	4.21	4.49	4.48	4.75
ranking	1	2	4	3	5	6	8	7	9	10	12	11	13
average equation-based wealth	4.52	2.85	2.57	2.12	1.84	1.81	1.49	1.41	1.33	1.04	0.83	0.82	0.66
ranking	1	2	3	4	5	6	7	8	9	10	11	12	13

Compare with Table 22. The numbers in brackets represent the family heads classified into the group.

46 In 1926, a merchant family or the family of an official in Belgrade had 2.5 rooms, artisans had 1.9, and workers had 1.5. The former values are similar to the values for Hungary, while the latter is higher. Calic, *Sozialgeschichte Serbiens*, 323–25.

47 Or, using a different approach, in cluster 1 each family had two or more than two rooms (90 percent had more than 3), while it was only 60 percent in cluster 2.

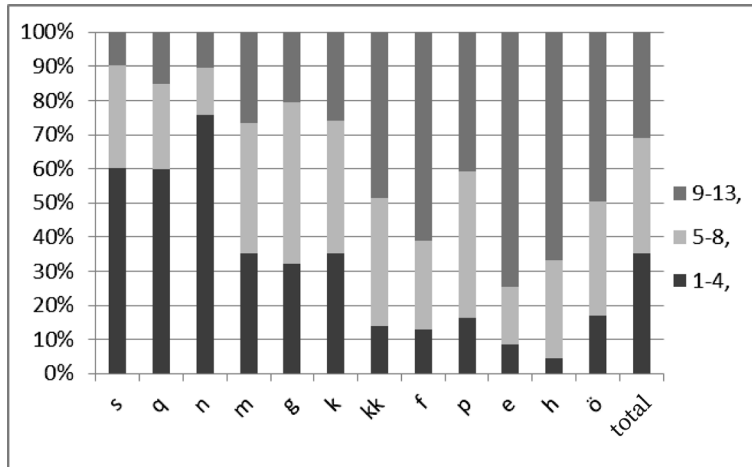


Figure 6. Internal differentiation among social groups based on the prestige of occupations
Groups 1–4 refer to poor, groups 9–13 are wealthier than the average.

Spatial Pattern of Wealth and Social Classes

We have already investigated the spatial pattern of religions and occupations, but the spatial pattern of wealth also shows interesting features. *The town was generally characterized by a concentric center-periphery accommodation pattern.* This is true both for social groups (first method) and wealth classes. The wealthiest families lived along the main street of the town, which formed a north-south axis (Figure 7). Perpendicular to this street another road led to the east across the Ronyva River, where the concentration of rich people was also higher compared to other parts of the town. *Based on the complex indicator of wealth, the northernmost and southernmost districts were inhabited by the poor.* The map showing the social classes (based on the modified Erdei-model, Figure 8) and the map illustrating the number of rooms per family (used as a proxy for wealth) also confirms this phenomenon. The picture becomes more complicated if population density is illustrated on the map (Figure 4),⁴⁸ because one can find both large and small families among both the rich and the poor. In other words, *the correlation between the size of the Wohnparthey (or number of children) and wealth was insignificant.* On the contrary, based on these maps, there seemed to be *evident connection between wealth and certain religions* (Figure 2 and 7; Figure 9) *and between wealth and occupation* (Figures 7, 8, and 15).

48 The number of rooms per family was high along the north-south axis of the town, while population density was great in the north and on the eastern outskirts and in Zsölyomka.

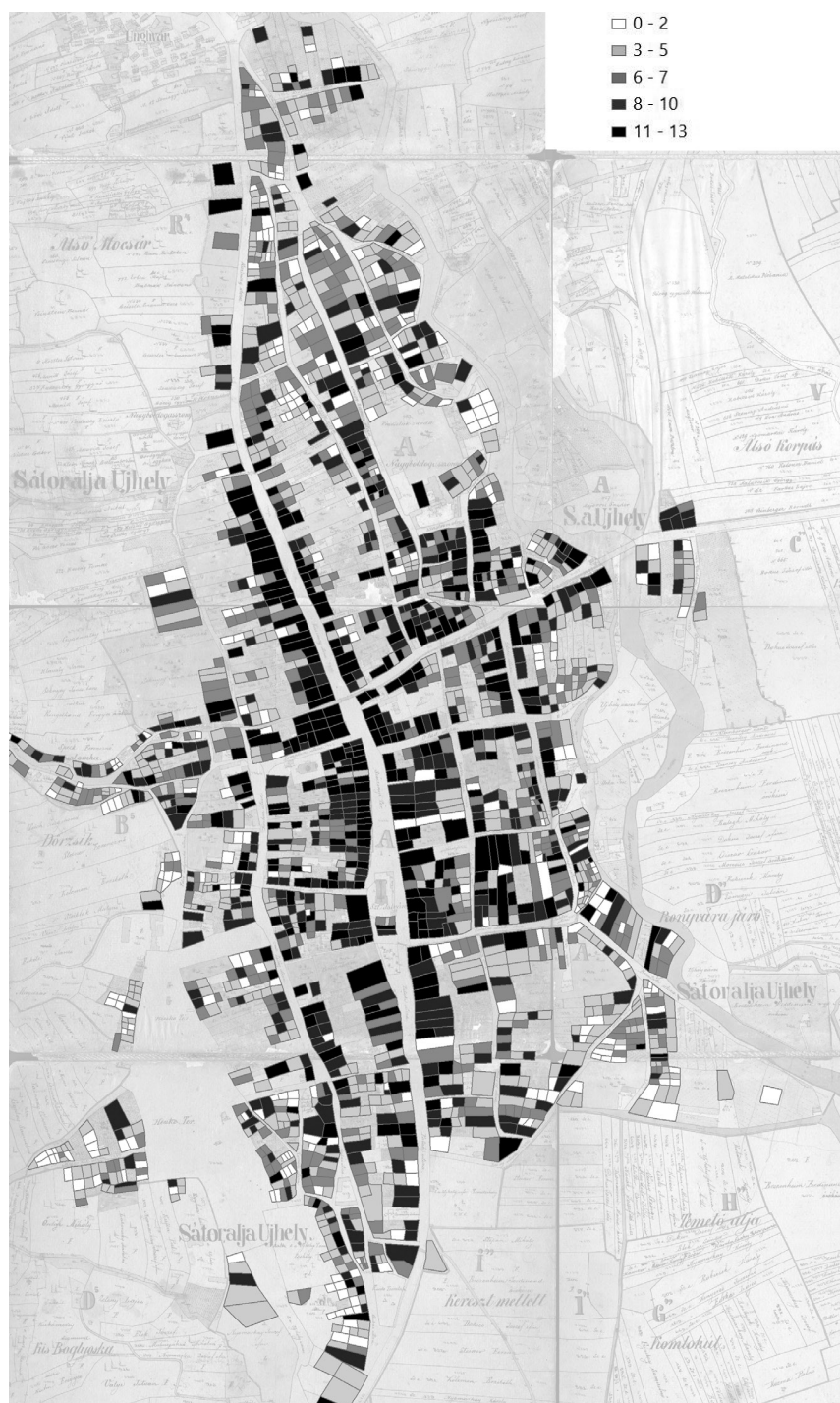


Figure 7. Spatial pattern of wealth based on the method using an equation composed of sociodemographic indicators, 1870



Figure 8. Spatial pattern of social groups in Sátoraljaújhely in 1870
For the detailed legend see Table 18a.

These variables were previously omitted from the investigations as they were not quantifiable. In order to measure and compare the relative wealth levels of different religious communities and occupations, a statistical analysis was carried out (Table 23).

With regards to religious differences, the Protestants (both Calvinists and Lutherans) had the greatest economic potential, followed by Jews (Figure 9). Greek Catholics were poorer than the average. Differentiation within the religious groups also advanced by 1870. Standard deviation values were high (there were poor artisans among Protestants and beggars and scrap-metal collectors among Jews). Protestants were overrepresented within category “h,” while Jews were overrepresented among members of group “kk” (both constituting the part of the elite). Within group “e” and group “f,” no similar trends could be observed

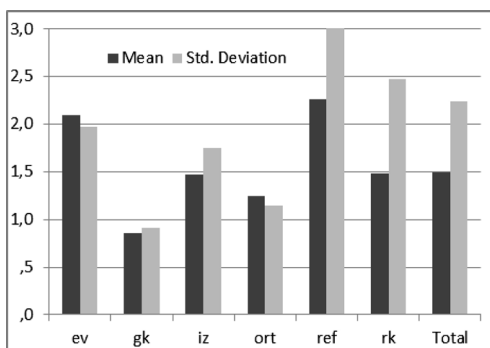


Figure 9. Connection between religion and economic potential based on the complex indicator (average, std. dev.)

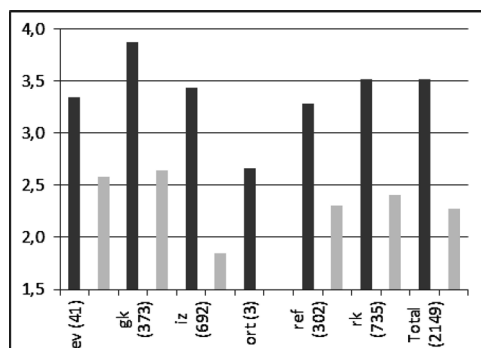


Figure 10. Differences in population density (inhabitants /room) based on religion (average and std. dev.)¹

¹ Mean is dark. Std. Deviation is indicated by light grey.

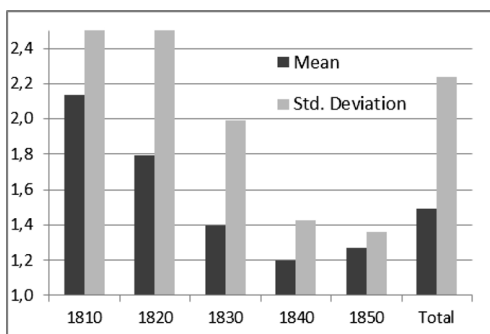


Figure 11. Connection between average economic potential (complex indicator based on the equation) and the age of the family head

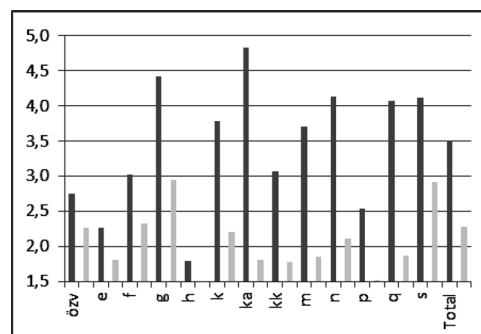


Figure 12. Differences in population density (inhabitants /room) based on social groups defined by the prestige of occupation (Erdei-Weber method) (average and std. dev.)

(Figure 13). The differences in population density (persons/room) regarding religions were also significant (Figure 10). *Age also influenced wealth* (Figure 11).

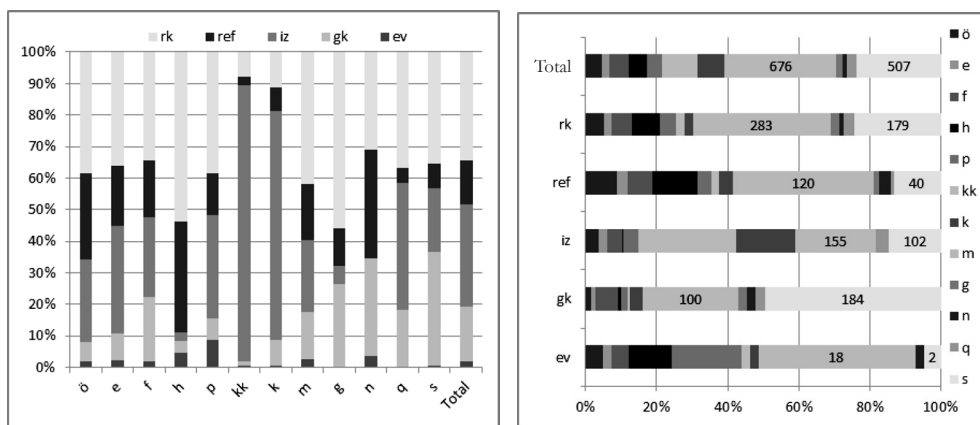


Figure 13. Differences in religious composition of different occupation groups (based on the Erdei-Weber method)

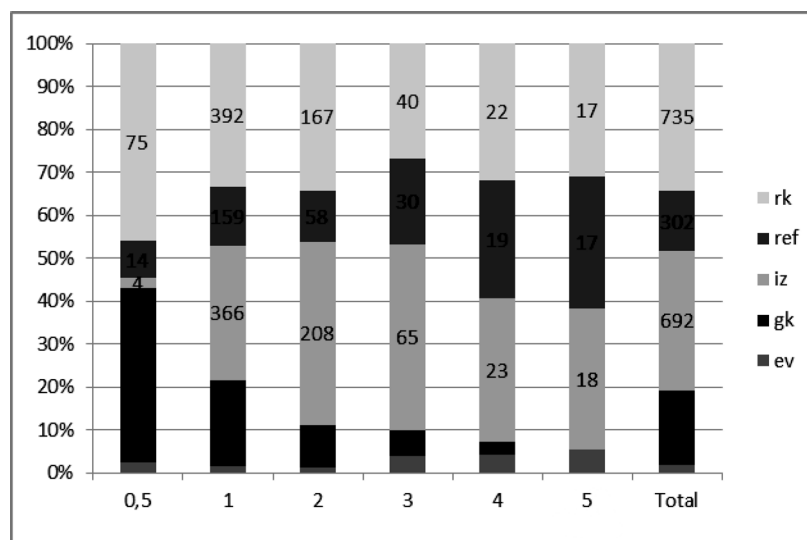


Figure 14. Differences in religions regarding the number of rooms / Wohnparthey

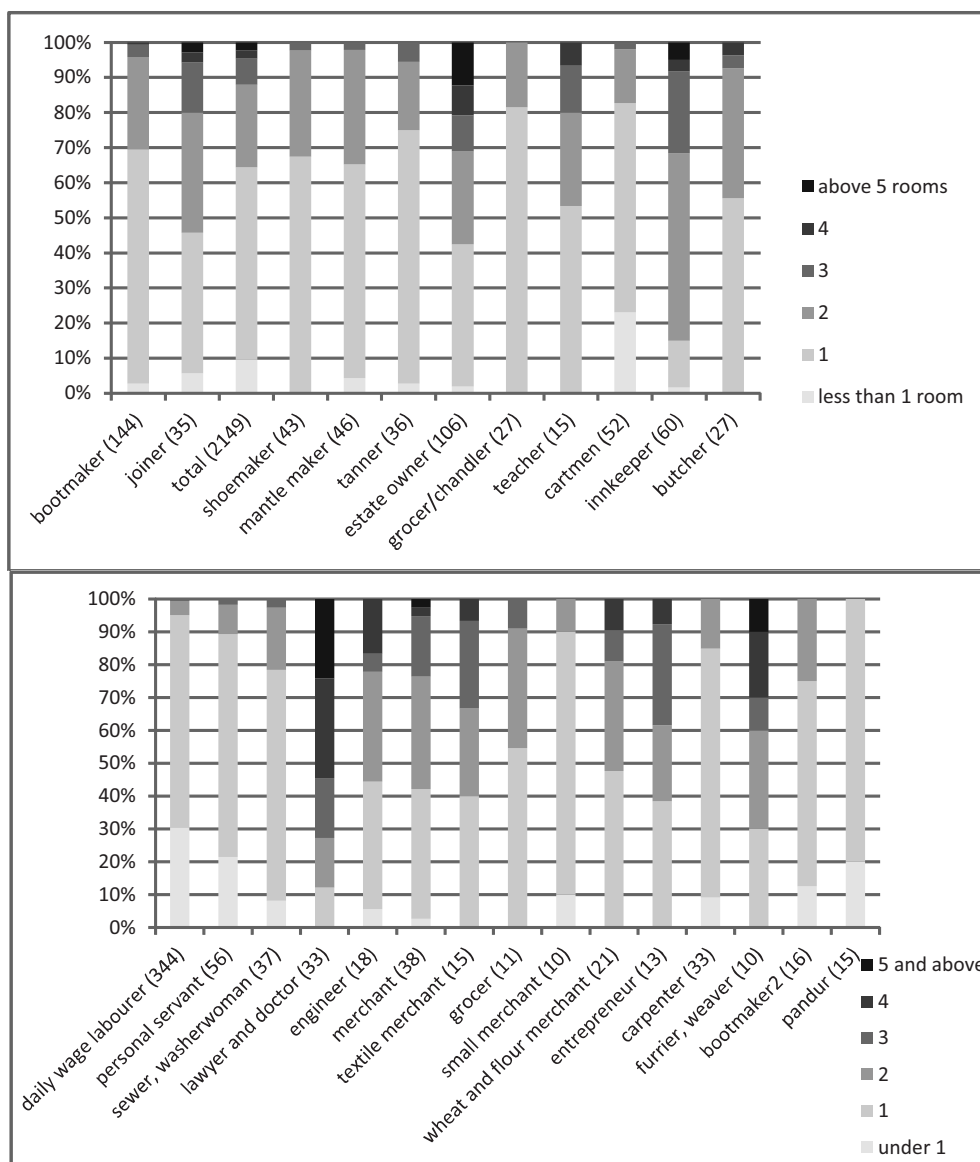


Figure 15. Internal differentiation among occupations based on number of rooms

Summary

To summarize our results, the GIS-aided evaluation of the 1870 census sheets managed to bring a new approach (an examination of various social divisions from the perspective of settlement patterns) into Hungarian urban and social history. HGIS contributed to the reevaluation of debated questions (the

existence of a Jewish middle class, the transformation of the elite, the shift of power from the old agrarian elite, spatial segregation of Jews, the extent of amalgamation of emerging capitalist social divisions and the traditional classes, etc.). Some phenomena formerly investigated through individual case studies were statistically verified. We managed to reconstruct the accommodation pattern of the town in the beginning of the period of industrialization, and we also succeeded in tracing persisting and transforming elements regarding the location of occupations (tanners lived near water, bootmakers were concentrated in one street in the southern quartier) and the marriage behavior of different communities. The role of migration in the transformation processes was examined in a comparative context (by analyzing the immigrant and host societies of three towns), and the participation of different occupational and religious groups in this was also traced, along with their strategies. At the same time, we tried to utilize the hidden potentials of the 1870 census by creating new sociodemographic indicators (proportion of children/family; proportion of earners/family; population density measured by inhabitants/room, room/family, etc.) and to measure the wealth or economic potential of the households. We tested three different methods to classify the population into social groups, and the three methods yielded partly corresponding results. The spatial patterns of the investigated sociodemographic phenomena and indicators were also mapped.

The core of the elite can be described as the common set of the three different methods (190 households). Altogether a maximum of 15 percent of the households could have been said to have belonged to the upper class. We defined the local elite as households with three rooms or more and two servants/coworkers. Protestants were overrepresented among them, but their positions were declining, and they were bound to the traditional official-bureaucratic elite. The new capitalist elite, composed of Jewish merchants, entrepreneurs, and Lutheran engineers was still weak in 1870. Despite their physical closeness of these two groups (living in the same streets), they did not really begin to amalgamate.

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Regional Differences in Development and Quality of Life in Hungary During the First Third of the Twentieth Century*

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In this essay, I look for answers to the following three questions: to what extent did the borders of Hungary after the 1920 Treaty of Trianon overlap with borders of structural development in 1910 and in 1930; what does the term “development” mean when we are talking about the Carpathian Basin; and how did geographical differences in standards of living change in the territories under discussion over the course of these two decades. To some extent, the new political borders which were drawn in 1920 in the Carpathian Basin overlapped with the borders which reflected the different levels and patterns of development in the region. This is a consideration which has been given little attention in the secondary literature in Hungary. The developmental structure of the Carpathian Basin in 1910 can be mapped using the GISTa Hungarorum Database. One discerns in this structure a major line of development. Within this line, one finds an area in which the level of development was higher than average and, in some places, considerably higher than average. Another distinctive feature of this area was that it had several centers, and this fact was of particular importance from the perspective of the Treaty of Trianon and its alleged consequences. In recent years, groundbreaking research on economic history has persuasively shown that Hungary managed to recover economically relatively quickly after 1920. Numerous factors played a role in this recovery. One of the more decisive, I argue in this study, was the geographical developmental structure of Trianon Hungary, which had several centers. Although the territory of Trianon Hungary was considerably more developed than other areas of the Carpathian Basin, it is quite clear that the economic fault lines which existed after Trianon had in fact existed before Trianon too, and the internal peripheral areas had already formed (and remained essentially unchanged throughout the interwar period). Thus, the Treaty of Trianon did not play any role in the emergence or formation of these areas. The treaty may well have had grave consequences for the country and region, but the developmental geographical structure of Hungary in the interwar period, which ultimately exerted a shaping influence on development in Hungary for the rest of the twentieth century, was not a result of Trianon.

Keywords: HDI change, regional differences in development, Interwar Hungary

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Theoretical and Methodological Frameworks

During the last roughly three decades of the twentieth century, both in the fields of geography and history, research focusing on structural analyses was gradually pushed into the background as new analytical perspectives and frameworks gained ground and agent experience became a priority. Thus, quantitative sources and methods which rely on quantitative sources seemed to lose a lot of their significance by the turn of the century. A series of novel postmodern approaches gained ground. This prompted some scholars to raise scientific concerns. For instance, Geoffrey Crossick, professor at the University of London, highlighted that overemphasis on cultural questions leads to the striking neglect of structural issues and a drop in the number of empirical studies.¹

Crossick was one of the first scholars to encourage the renewal of empirical studies, which was appreciably furthered by the digital revolution, which accelerated dramatically at the turn of the twentieth and twenty-first centuries. Due to the widespread use of personal computers, the sophisticated table management and data management programs, and the increasing use of the geospatial systems in the science of history, a new era of empirical studies dawned. The new quantitative historical studies were inspired in part by a need for a “new materialism” that came in the wake of postmodern history recordings and also by the overwhelmingly popular² spatial turn.³

The pioneering 2006 study by Róbert Győri entitled “Bécs kapujában” (“At the Gates of Vienna”),⁴ which was published in the Hungarian periodical *Korall*, has played a crucial part in scholarship and research in Hungary. The study is an extended chapter from Győri’s doctoral dissertation, in which he lays a new historical geographic bases for measuring differences in the rates of local regional development.⁵ As far as the selection of variables was concerned, Győri chose indicators of literacy, economics, and infrastructure.⁶ He used the following six indicators (Table 1–2).

1 Quoted by Kidd and Nicholls, Introduction, xxi.

2 Benda, *Zsellérből polgár*; Novák, “Az erőszak topográfiája,” Kövér, *A tiszegeszlári dráma*; Majorossy, “A foglalkozás,” Szilágyi, *Homokváros*.

3 Soja, *Postmodern Geographies*; Warf and Arias, *The Spacial Turn*; Szilágyi, “A társadalmi tér,” Izsák, “A tértudás,” Izsák and Düll, “Városi térfordulatok.”

4 Győri, “Területi fejlettségi.”

5 Győri, “A térszerkezet.”

6 Győri, “Területi fejlettségi,” 233.

Table 1
Indicators of regional developmental studies conducted by Győri

Code	Specification	Source
m1	literacy rate among the population over 6 in 1910	MSK Ús. Vol. 42
m2	rate of patients undergoing medical treatment between 1901 and 1910	MSK Ús. Vol. 46
m3	rate of high-quality residential buildings in 1910	MSK Ús. Vol. 42
m4	rate of migration balance between 1901–1910	MSK Ús. Vol. 46
m5	rate of non-agricultural workers in the labor force in 1910	MSK Ús. Vol. 48
m6	net cadastral income per agricultural employee in 1908/1910	MSK Ús. Vol. 39*
<i>Source:</i> Győri, “Bécs kapujában,” 233. <i>Remark:</i> *) rates of net cadastral income recorded by Győri followed by the corrections published in 1914, while during a later inspection of the Alföld region, the same process was conducted based on the data from 1935 (Szilágyi, “A fejlettség területi különbségei,” 49).		

Table 2
CDI calculation method for component indicators

Indicators (m1–6), base variables (v1–13)			Number of records	Data missing	Mathematical formulas for indicator calculation
Code		Description			
m1	v01	number of people under 6, 1910	12 542	0	$m1=v03\times100/(v02-v01)$
	v02	total population in 1910	12 542	0	
	v03	literacy rate, 1910	12 542	0	
m2	v04	annual mortality rate, 1901–1910	12 535	7	$m2=v05\times100/v04$
	v05	annual average rate of fatalities receiving medical treatment (from all deaths), 1901–10	12 536	6	
m3	v06	number of stone or brick houses, 1910	12 542	0	$m3=(v06+v07)\times100/v08$
	v07	number of adobe or mud houses with stone or brick foundation, 1910	12 542	0	
	v08	total number of houses, 1910	12 542	0	
m4	v09	total population in 1900	12 537	5	$m4=(v02-v09-v10)\times100/v09$
	v10	<i>total population specific to the date 1910</i>	12 542	0	
	v11	rate of natural population change, 1901–10	12 535	7	
m5	v12	number of agricultural traders, 1910	12 542	0	$m5=(v12-v11)*100/v12$

Indicators (m1–6), base variables (v1–13)		Number of records	Data missing	Mathematical formulas for indicator calculation
Code	Description			
	v12 total number of earners in 1910	12 542	0	
m6	v13 cadastral net income from total land tenures in Hungarian Koronas, 1908	12 434	108	$m6=v13/v11$
	v11 <i>number of agricultural earners, 1910</i>	12 542	0	
Totals (v1–v13)		162 913	133	
<i>Source:</i> CBRDD, compared to the original sources, GHD <> MSK Ús. 39, 42, 46, 48, own editing. <i>Note:</i> variables in italics have been listed previously. Description of m1–6 indicators are included in Table 1.				

The average derived from the normalized value of six developmental indicators (m1–6) makes the Complex Developmental Index (CDI). If this methodological procedure is taken as the basis on which to identify and compare regional differences, then we are given not an overall picture of the rate of modernization and development, but rather an incomplete sketch based on subsequently selected indicators. In practical terms, we can only see what the development indicators measure compared to prior circumstances, which allows for interpretation of the developmental overview of a simplified version.

As for the rate of development and the quality of life, further methods are available with which to measure them. In recent decades, the use of *Human Development Index* (HDI)⁷ has gained ground, especially in the social sciences. Today, primarily sociology, geography, and political science utilize HDI. This multivariable index is adapted mainly to classify the regions as “developed,” “less developed,” and “underdeveloped” and also to map the regional differences in the quality of life. In the 1970s and 1980s, there was a growing need among social researchers to develop a multivariable index⁸ which would replace the “one-dimensional” GDP⁹ already widely used to measure the rate of economic development. There was need of an index which would be reactive not just to economic factors, but also to other (individual) circumstances (skills and

⁷ *Human Development Report 1990*, 109.

⁸ Hicks and Sreeten.

⁹ According to Farhad Noorbakhsh, GNP, the specific indicator (of measuring standard of living), was commonly adopted following a recommendation included in a UN report in 1954. Noorbakhsh, “A Modified Human,” 517.

opportunities). Income is one factor on the basis of which “human welfare” can be gauged. But human welfare is perhaps better gauged via an assessment of choice options. In particular, the extension of choice options as a process gives meaning to the term “human development.”

The method of according to which the HDI is attained was published in the first issue of the series *Human Development*.¹⁰ The calculation method on which HDI is based has been refined over the course of the last couple of years (e.g. in 1991, 1999), but the process itself has remained unchanged. The value of HDI takes the arithmetic average of three component indicators (lifespan, knowledge gained from education, and standard of living). The component indicators are defined as follows: lifespan via life expectancy at birth; knowledge via the average of literacy and numeracy added to the combined key indicators of the elementary, secondary, and higher education levels; standard of living via the volume index of per capita GDP measured by purchasing power parity (PPP).¹¹ The Hungarian historical sources do not allow us to map differences in development within the area of the country via the UN method of HDI calculations. In order to arrive at an informative map, HDI must be modified in the Hungarian case. The rates used are as follows: rate of life expectancy at birth instead of raw death rates, literacy rate among those above six years of age instead of education component indicator; rate of land tax, real estate tax, corporation tax, and tantième tax out of the ordinary tax system instead of GDP (Table 3).

Table 3
Source of required variables for HDI component indicator

Code	Description	Source
k1	Average of deaths (1901–10)	MSK Ús. Vol. 46
	Population (1910)	MSK Ús. Vol. 42
	Average of deaths (1921–30), data broken down by year	KSH 1969.
	Population (1930)	MSK Ús. Vol. 83
k2	Literacy rate (1910)	MSK Ús. Vol. 42
	Population above 6 (1910)	MSK Ús. Vol. 42
	Population (1910)	MSK Ús. Vol. 42
	Literacy rate (1930)	MSK Ús. Vol. 83
	Population above 6 (1930)	MSK Ús. Vol. 83
	Population (1930)	MSK Ús. Vol. 83

10 *Human Development Report 1990*, 109.

11 Ibid.; Nemes Nagy, *Terek, helyek*, 301–05. Tomka, *Gazdasági növekedés*, 187–94.

Code	Description	Source
k3	Municipal substitute taxation of which base relies on state taxation of 1908 (K)	MSK Ús. Vol. 39
	Land tax, house tax, income tax levied on urban residents, taxes and other direct taxes levied on guilds, companies liable to public accountability (1910, K)	MSK Ús. Vol. 58
	Population (1910)	MSK Ús. Vol. 42
	Total state taxes serving as the basis for municipal substitute taxation (1934, P)	MSK Ús. Vol. 93
	<i>Tax estimates for towns (method of calculation is listed in the text):</i>	
	· Land tax paid by municipal cities (1933/34, P)	AS 1934: 51
	· House tax paid by municipal cities (1933/34, P)	AS 1934: 77
	· Company tax and tantième tax paid by municipal cities (1933/34, P)	AS 1934: 149
	· Land tax paid in county towns (corporate towns) (1933/34, P)	AS 1934: 51
	· Total of land tax paid within the country (1933/34, P)	AS 1934: 51
	· Cadastral income from lands agriculturally cultivated by towns (1935, AK)	MSK Ús. Vol. 99
	· Total of house tax paid in county towns (1933/34, P)	AS 1934: 77
	· Utility value of dwellings used by owners in county towns (1933/34, P)	AS 1934: 82
	· Raw income from leased dwellings in county towns (1933/34, P)	AS 1934: 83
	· Company and tantième tax paid by county towns (1933/34, P)	AS 1934: 149
	· Number of residents working in industry, trade, and travel (1930)	MSK Ús. Vol. 86
<i>Sources:</i> in addition to the above, the date 1910 is listed: GHD, own editing. Note: the dissolving of k1–3 is listed in the methodological description of HDI calculation.		

I have obtained details from three databases for the calculations of territorial inequalities in regional development and quality of life: 1. GISa Hungarorum Database (GHD, 7.3 million data entries, Gábor Demeter),¹² 2. Kárpát-medencei Területi Fejlettségi Adatbázis /Carpathian Basin Regional Development Database/ (CBRDD, 0.4 million data entries, Zsolt Szilágyi), 3. Magyarországi Életminőség-alakulás Történeti Adatbázisa (Hungarian Quality of Life Historical Database (HQLHD, 0.5 million data entries, Zsolt Szilágyi).

12 OTKA K 111766: Implementation of geoinformatical system to execute research on the history of Hungary and the Austro–Hungarian Monarchy (1869–1910).

*The development the Spatial Structure of the Carpathian Basin
at the Beginning of the 20th Century (CDI)*

The first complex, multivariable development studies of the Carpathian Basin were done relatively late, in 2000, when Pál Beluszky published his findings.¹³ Beluszky used twelve indicators in his study.¹⁴ He sought to select indicators (drawing on his years of scientific experience and his intuition) which would enable him to map both the economic and social changes effectively. The results profoundly rewrote all the concepts formed on the spatial structure of modernization in the Carpathian Basin at the turn of the nineteenth and twentieth centuries.¹⁵

On the basis of Beluszky's findings, we can conclude that the majority of the country had reached a level of modernization at the beginning of the century. Beluszky introduced the Kisalföld and the Great Plain as the regions which had led the process of modernization,¹⁶ where the former market towns claimed the leading position in this process.¹⁷ No further advancement has been made until now. (With regards to national politics of regional development, János Péntes has recently done studies from the perspective of geography.)¹⁸

Figure 1 was created using the unified development indicators (m1–6) after the standardization of the indicators based on the average values (CDI). It indicates regional differences. The two central regions, Vienna and Budapest, conspicuously stand out. The leap of development in Budapest, which was influenced from the east, is significantly harsher than it was in the case of Vienna. Apparently, the development of the region between the two capital cities was outstandingly high: probably the two metropolises enhanced each other's influence. It is also obvious that spatial contact was stronger between the mine basin around Tatabánya (Dorog) and the capital than it was between any other regions. It is also clear that the Hungarian capital's economic hinterland was made up not just of the abovementioned regions, but also of the areas to the south of Budapest along the Danube, which were rich in German horticultures,

13 Beluszky, "Egy félsiker."

14 Beluszky and Györi, *Magyar városhálózat*, 85–86.

15 Beluszky, *A Nagyalföld történeti földrajza*; Szilágyi, "A fejlettség területi különbségei."

16 Timár, *Vidéki városlakók*, 21; Beluszky, "Kárpát-medence országrészeinek," 348; Beluszky, *A Nagyalföld történeti földrajza*, 239; Beluszky and Györi, *Magyar városhálózat*, 85.

17 Beluszky and Györi, *Magyar városhálózat*, 87; Beluszky, "Kárpát-medence országrészeinek," 354.

18 Péntes, *Periférikus térségek*, 14–18.

and areas to the southeast of Budapest, which were fruit and vegetable farmlands at the rim of the towns of Kecskemét, Nagykőrös, and Cegléd.

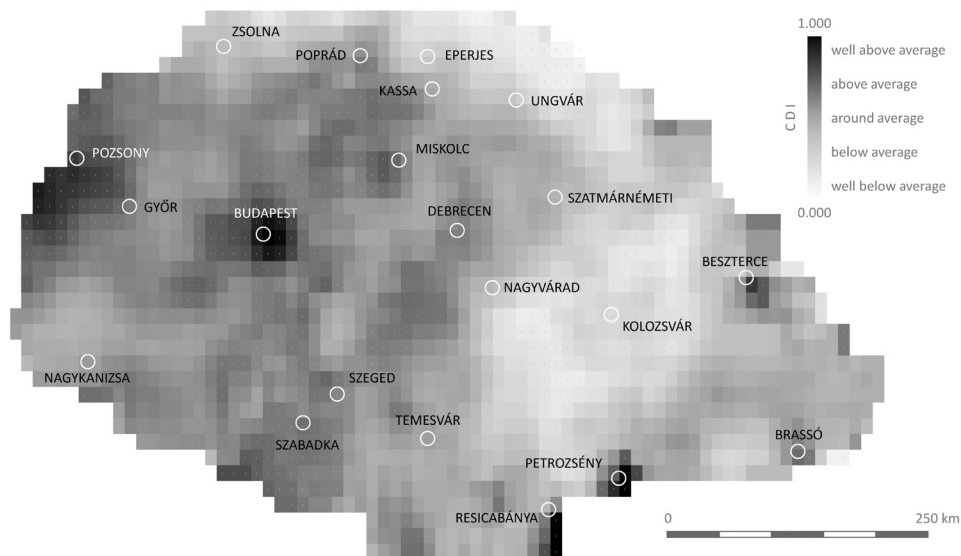


Figure 1. Development spatial structure in the Carpathian Basin based on CDI, 1910

Source: CBRDD, own calculations and compositions

Central regions which as peaks stood out with significantly lower rates of modernization were the surroundings of Resicabánya (today Reșița in Romania), Petrozsény (Petroșani, Romania), and Beszterce (Bistrița, Romania). Regions which showed less significant development were around the cities of Rozsnyó (Rožňava, Slovakia) and, in the south, Zombor (Sombor, Serbia; Sombor lies in the region known as Eszék, which is not included in this study). At the beginning of the century, what at the time was known as Upper Hungary was a more or less coherent area with an above-average level of development. It included the cities of Zsolna (Žilina), Poprád (Poprad), Kassa (Košice), Rozsnyó, and Besztercebánya (Banská Bystrica), all of which are found in Slovakia today. The area around the cities of Nagykanizsa, Kaposvár, and Szekszárd was similarly developed, as were the triangle formed by Zombor, Szabadka (Subotica, Serbia), and Újvidék (Novi Sad, Serbia) and the market town belt over the Tisza River (the formed by the cities of Szeged and Debrecen). Towards the Székely Land, a region in the eastern stretch of Transylvania, two “development corridors” appeared: the gateway towards the north, which was bordered on either side by

the cities of Szatmárnémeti (Satu Mare), Nagybánya (Baia Mare), and Beszterce (Bistrița) to the northeast and Marosvásárhely (Târgu Mureș), Kolozsvár (Cluj), and Nagyvárad (Oradea) to the southwest, and the one lying towards the south, south of the Maros River, following the crest of the southern Carpathian Mountains across the so-called Saxon Lands (a region of Transylvania which had a strong Saxon present until the last decades of the twentieth century).

At the beginning of the century, the regions which had below-average development rates were the Zalai hills, the sand lands of Bugac, the plains of the Hortobágy, and the so-called Nyírség. These areas were either densely populated small villages with no regional centers or uninhabited areas where the biogeographic indicators (such as low total annual rainfall, etc.) impeded the emergence of settlements. Over the main structure line, in the north of the *peripheral region*, a narrow zone and in the east an expanded zone appeared, both with development rates which were well below average.

Based on the above descriptions of the different regions (which are confirmed by numerous sources in the Hungarian secondary literature), the so-called “development slope,” according to which the rate of development shows a gradual decrease following the direction from the western regions towards the eastern part within the territory of historical Hungary, proves incorrect. The new results allow us to deconstruct the “slope thesis.” We should not regard the surface forms of development as a slope, but rather should consider them a hilly land which slopes from the direction of west towards east and from south towards north and also shows rises in the form of coherent areas or islands. These “high areas” are divided by lowland valleys which prove to have high (metaphorical) altitudes in patches, but mostly have surprisingly low points. As a consequence, the rigid “slope image” should be rejected in favor of an image of a “development membrane” with varied and flexible forms.

The development membrane reveals the developmental spatial structure of the Carpathian Basin in the most visual way possible. The most apparent feature of Figure 2 is that the developmental terrain is the inverse of the geographical terrain. At places where tall mountains were found in reality these regions had low rates of development. In places where a basin was found, there can be found the most developed regions. Certainly, this statement is not well founded yet. However, it highlights the fact that though there had been raw material resources for possible industrial purposes in the mountainous area, and also energy resources were also easily available, the processing plants and the low energy-demand industries were set in the basin-related divisions. Literacy rates

and access to basic health were better in the middle of the country (i.e. the flatlands), and immigration rates were higher. All these facts make is clear that the Carpathian Basin was at an above-average development level at the beginning of the twentieth century. This region was a dynamically developing part of the country at the beginning of the twentieth century, with a high level of economic innovation compared to its surroundings, and it offered higher standards of living. On the whole, this region was a basin which attracted people who hoped not simply to earn a livelihood, but also sought to invest.

DEVELOPMENT TERRAIN OF HISTORICAL HUNGARY, 1910

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OTKA K 111766: Implementation of geoinformational system to execute
research on the history of Hungary and the Austro-Hungarian Monarchy
(1869–1910)

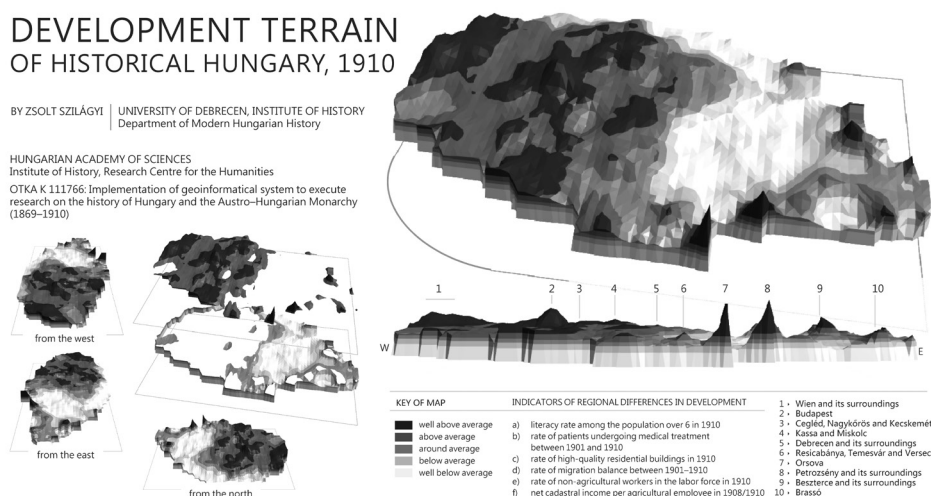


Figure 2. Development terrain (membrane) of historical Hungary, 1910

Source: CBRDD, own calculations and compositions.

Based on this, we must reject the notion that, from the perspective of modernization, the two capital cities and the surrounding areas were the only parts of the Carpathian Basin at the beginning of the twentieth century which enjoyed promising rates of development. On the contrary, we can clearly construct a multi-centered developmental structure of the Carpathian Basin based on the subsequently selected indicators. Our study reveals that a developmental main structure line existed at the turn of the century in the Carpathian Basin, in other words a kind of “break line” (Figure 1). The areas over the main structure line can undoubtedly be regarded as peripheral in the narrative of the economic development rate of the area. Our study indicated the need for further research to determine whether this line overlaps with the

eastern borders of Hungary established by the Treaty of Trianon and, if so, to what extent. Gábor Demeter has shown that “the new country borders, as internal break lines, existed before the Treaty of Trianon, and they did not simply constitute break lines defined merely by differences in language.”¹⁹ The extent to which some of the newly created national borders in the Carpathian Basin correlated with the developmental spatial structure of the greater area is unclear. This question merits further study.

Within the main line of development structure lay a region which was not homogeneous at all and showed above average (often very above average) rates of development (Figure 2). It was a multi-centered region, which gained specific meaning in the narrative of the Treaty of Trianon. The pioneering economic historic research of recent years have clearly proven that the country regained its stability relatively quickly after 1920.²⁰ *This economic success was due to many factors, but on the basis of our study, it is clear that one of the most important elements was the multi-centered developmental spatial structure of Hungary after the Trianon Peace Treaty.*

Regional Differences in Quality of Life in Hungary in 1910–1930

Based on the calculations, the national average of HDI in 1910 was 0.451, which showed a slight rise of 2% to 0.461 as a result not just of the past economic and social changes but also as a consequence of distortion stemming from the adapted resources. Practically, in 1924, the community tax base components had seen modifications following an Administrative Circular specified by the Ministry of Home Affairs.²¹ Consequently, the calculations were based on four specific indicators: land tax, real estate tax, corporation tax, and *tantième*.²² Thus, income tax and mine tax were deleted from the base of substitute tax. Corporate tax and *tantième* were “theoretically” equal to the previous tax paid by public companies and associations also the tax on equity interest and the benefit tax. The conditions of taxability, however, had seen profound alterations in the meantime. Consequently, the substitute component indicators for GDP from 1910 and 1930 (which consist of the abovementioned taxes) can only be

19 Demeter, “Történeti kérdések földrajzi szemszögből,” 30.

20 Tomka, “Gazdasági rekonstrukció,” Pogány, “A nagy háború hosszú árnyéka.”

21 177.200/1924 BM (Ministry of Interior), MSK Ús vol. 93: 14*.

22 100/1927 PM (Ministry of Finances), 10,000/1927, 1929-23-1§; 200/1927 PM, 20,000/1927 1929-2§, 1929-29§, 1390/1933 ME 1§; 400/1927 PM, 40,000/1927, 2030/1932 ME 6-10§, 1390/1933 ME 2§, 2600/1933 ME 4-6§. AS 1934: 49, 75, 147.

compared to a limited extend. With regard to these factors, the spatial structure of territorial inequalities related to quality of life had remarkable features: the major part of Transdanubia, the agglomeration of the capital city, and the rim of the towns in Tiszántúl were more developed according to this narrative than any other parts of the country. Societies in the northern regions which were industrially more developed were in a favorable position, as were town dwellers. An additional distinctive feature of the emerging spatial structure is that when taking into consideration the territory of the country as it was later defined by the Treaty of Trianon, the northeastern region of the Great Plain was acknowledged as a periphery even in 1910. Peripheral regions were clearly marked by the Nyírség, the region of Közép-Tisza and Jászság, and also parts in the Hills of Zala and the wider surroundings of Bugac. The results derived by two different methods of calculation (CDI, HDI) closely overlap (Figure 3).

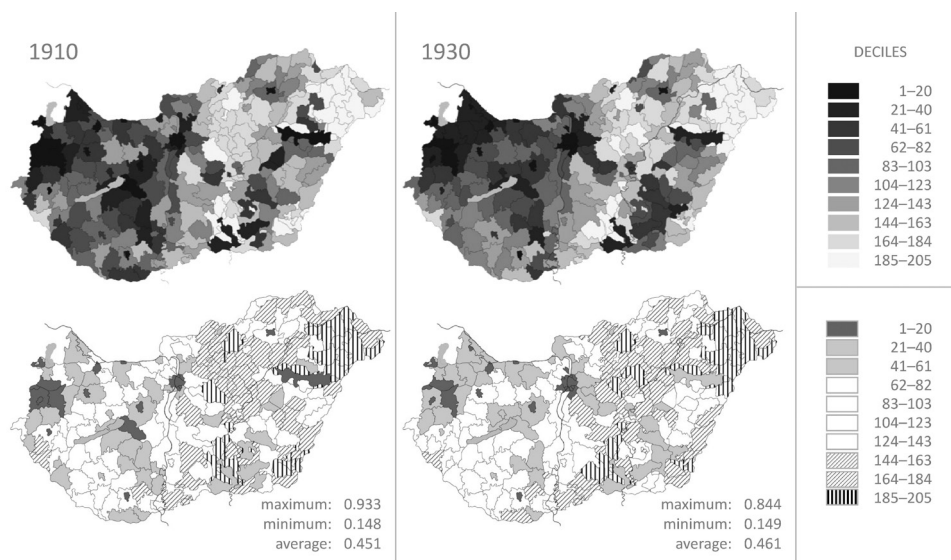


Figure 3. Regional differences in the quality of life between 1910 and 1930

Source: GHA, MÉTA, own calculations and compositions.

The overall picture becomes more complex as we investigate the volume of changes in certain regions. It is clear that more than 40 percent of the territorial units were substantially “stable.” Between 1910 and 1930, there were no towns or districts in these regions that would have shown a “leap” forwards or backwards of more than 20 points in an imaginary ranking. This kind of regional attribute can be identified with most of Transdanubia, the Sárretek district of Tiszántúl, the third of the western region between the Danube and

the Tisza Rivers, the Zemplén, the Bükk, and the Cserhát Mountains. The northern area of the Great Plain was in a particularly disadvantageous situation, as were the districts of Kiskunhalas and Kiskunfélegyháza and the majority of the districts in the border areas east of the Danube River. This contributed to the emergence of a state in which the pre-Trianon internal peripheral regions faced further deterioration and their positions became more disadvantageous. In the districts that were transformed into border areas, the pace of development apparently became slower. By contrast, the towns, especially the capital city and its agglomeration and the towns of Northern Transdanubia (including Miskolc), kept their previous momentum. From the perspective of development, they made dramatic leaps in the national ranking. The Győri basin near Vienna was an interrelated unity which showed a different developmental trajectory, as were the extended environment of the Pre-Alps and the city of Szombathely. In the north, only Miskolc underwent this different process of development, and in the Great Plain, only the areas lying next to the railway between Budapest, Szolnok, and Debrecen and the southern parts of Békés County (Figure 4).

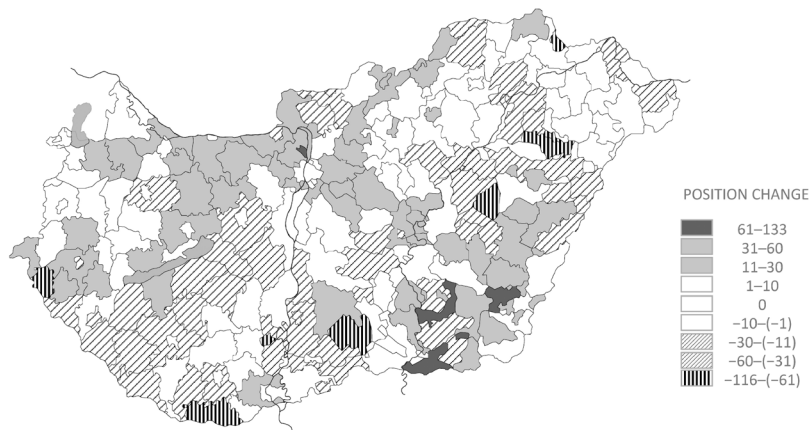


Figure 4. Changes in the quality of life between 1910 and 1930

Source: GHA, MÉTA, own calculations and compositions

A new consideration which is important if one seeks to place the data in a meaningful context lies with the calculation of the *variation coefficient*.²³ A further question arises here as to whether the differences in development (quality of life) among the regions, towns, and villages showed decreasing or rising tendencies. If the value of the variation coefficient proves lower for the period under study then the rate of regional development discrepancies among the areas compared also shows a decrease, which indicates a favorable outcome. This case indicates convergence; otherwise, the opposite should indicate divergence. (Table 4, Figure 5).

Table 4
Variation coefficient changes within the area of Hungary after the Treaty of Trianon, 1910–1930

Description	Variance		Average		Variable coefficient		Difference	
	1910	1930	1910	1930	1910	1930	points	%
Covering the total area of the country after the Treaty of Trianon								
Country area including Budapest	0.11	0.10	0.45	0.46	23.35	21.20	–2.15	–9.22
Country area excluding Budapest	0.10	0.09	0.45	0.46	22.28	20.51	–1.78	–7.97
Counties	0.07	0.07	0.44	0.46	16.75	15.32	–1.43	–8.55
Districts	0.09	0.08	0.42	0.44	20.24	17.91	–2.33	–11.51
Towns	0.12	0.12	0.52	0.52	22.51	22.10	–0.41	–1.84
Towns excluding Budapest	0.11	0.11	0.52	0.52	20.32	20.88	0.56	2.75
Statistics by regions								
Towns								
Transdanubia	0.08	0.09	0.59	0.56	14.15	16.06	1.91	13.50
North Great Plain including	0.11	0.07	0.46	0.48	24.28	15.39	–8.89	–36.62
Budapest	0.12	0.13	0.51	0.51	24.42	25.07	0.65	2.65
Great Plain excluding Budapest	0.10	0.12	0.49	0.50	20.17	23.11	2.93	14.55
Districts								
Transdanubia	0.05	0.05	0.49	0.49	10.30	9.69	–0.61	–5.97

23 $VE = S/X \times 100$, where variation is indicated via S, average is indicated via X. Csíke and Németh, *Az életminőség területi*, 31–38.

Description	Variance		Average		Variable coefficient		Difference	
	1910	1930	1910	1930	1910	1930	points	%
North	0.05	0.04	0.40	0.41	13.67	10.36	-3.31	-24.23
Great Plain	0.09	0.09	0.37	0.40	23.04	22.23	-0.81	-3.50
Regions								
Transdanubia	0.07	0.07	0.51	0.50	13.89	13.12	-0.77	-5.56
North	0.07	0.05	0.41	0.42	17.17	12.85	-4.32	-25.16
Great Plain	0.12	0.12	0.42	0.44	28.29	26.72	-1.57	-5.55

Source: GHD, HQLHD, own calculations.

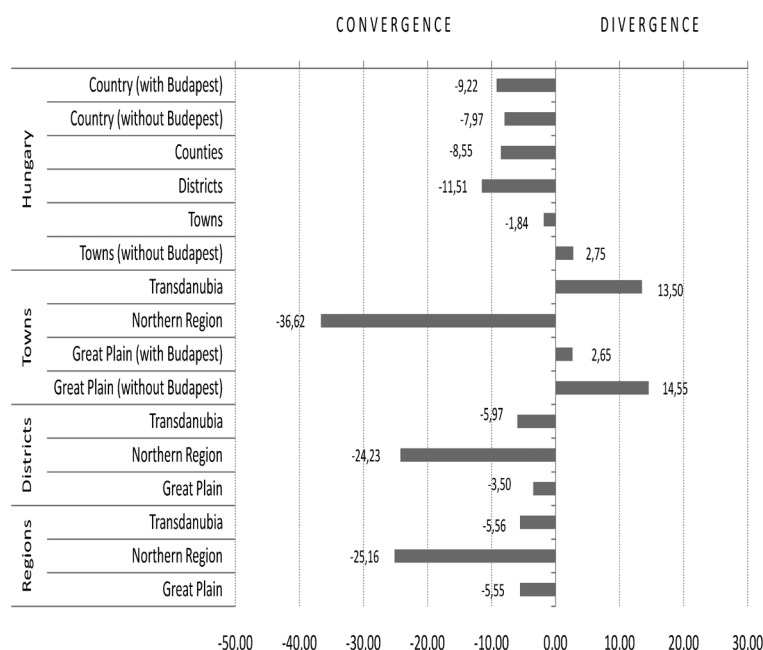


Figure 5. Variation coefficient changes, 1910–1930

Source: HQLHD, own calculation and editing

Between 1910 and 1930, in the area of the country as it was defined by the Treaty of Trianon, there was a decrease not only in regional development disparities related to the rate between districts (−11.5%), but also related to the rate between towns (−1.8%), which suggests that, overall, the disparities among towns showed only minimal differences in comparison to the disparities among districts, where the rate of convergence was six times higher. If we examine the

shifts in disparities among towns excluding Budapest, then a kind of divergence can be traced (+2.8%), which means that *while the regional differences between the capital and the other towns decreases, in the case of the statuses among towns, a completely different tendency can be observed. An ongoing increase is traceable.* The status is different if we inspect the differences based on regional sections. Convergence can only be seen among the towns of the northern region (−36.6%), while the gap between the towns on the Great Plain shows a more remarkable increase (+14.6%) than between Transdanubian towns (+13.5%). In contrast with these trends, the differences among the villages in the three macro-regions of the country showed further decreases, especially in Transdanubia, where the convergence of villages was five or six times more in volume than the villages in the other two regions. *Therefore, the disparities among the villages in Transdanubia became less traceable at a remarkably higher space and rate than in any other region of the country.*

As a consequence, we can also determine which region, given its own attributes, was more preferably influenced by the equalization process of regional differences. It is demonstrable that it was neither the Great Plain nor Transdanubia which marked the process, but surprisingly, the northern region proves to have taken the lead, where convergence reached rates five times higher than the rates found in other regions. This remarkably preferable status can be primarily attributed to the higher rate of disparity equalization between Northern towns (Figure 5).

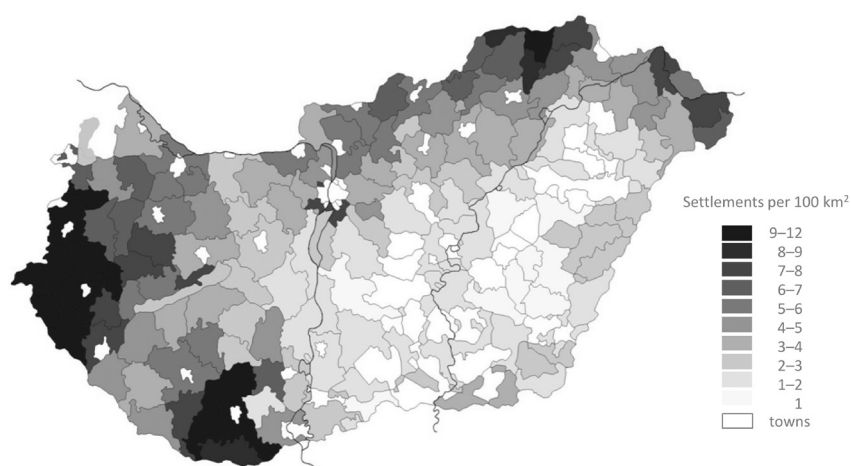


Figure 6. Settlement density in Hungary, 1933
Source: HQLHD, own calculation and own editing.

Overall, *the rate of gap decrease showed more considerable moderation for the villages in Transdanubia, while the rate of gap decrease showed more considerable moderation for towns in the northern regions.* However, the data relevant to the Great Plain indicate that a process completely different from the formerly sketched ones took place. As was the case in Transdanubia, the disparities among the towns of the Great Plain continued to grow; the regional disparities among the villages continued to show no decrease, but only slight moderation, unlike in the other regions. So, *in the Great Plain, travel processes between the villages and the towns slowed down after World War I*, which was not typical neither to Transdanubia nor to the Northern Region. Furthermore, the regional differences in lifestyles showed faster growth than the “adjustment” itself, which indicates that the gap between the agricultural towns in the Great Plain and the villages saw further “depths.” This exceptional process can be correlated with the unique settlement structure of the land, and it also indicates that the population density of the Great Plain was much lower than the population density of other regions. (Figure 6).

The Development of Quality of Life in Hungary Based on International Comparisons

Using the data assembled by Nicholas Crafts,²⁴ Béla Tomka has taken European data-based comparisons related to Hungary on the basis of HDI. Since some of the data was unobtainable, Crafts could not determine the index related to Hungary at the beginning of the twentieth century, so the calculations for 1913 were made complete by Béla Tomka. This has enabled historians to analyze the status of Hungary in correlation with a Western European context. Based on the results, it is apparent that the quality of life in Hungary compared to Northern and Western Europe was clearly even more unpreferable than it had been in 1913. (Figure 7). Over the course of the following decades, the gap displayed significant shrinking: while at the beginning of the century the HDI index was only 78% of the Western European average, by the mid period of the century it took 93%.²⁵

24 Crafts, *The Human Development Index*.

25 Tomka, *Gazdasági növekedés*, 199.

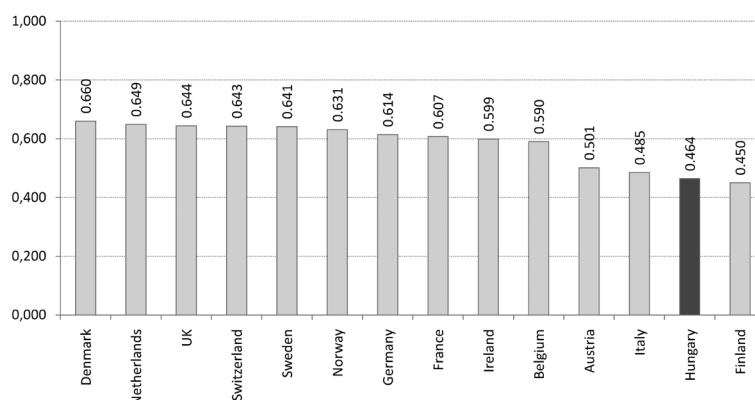


Figure 7. HDI rate in Hungary, compared to Western Europe, 1913

Source: Tomka, *Gazdasági növekedés*, 191. Own editing.

In recent years, Leandro Prados de la Escosura has collected the base data from different countries of the world. His work enables us to determine the three component indicators of HDI in 1870 when focusing on different time sections. The researcher had taken the point at the beginning of his studies that the HDI (UNHDI) calculated via UN methods can only be utilised at a confined birth rate in case of historical perspectives and in the global context, which induced him to make changes to the calculation methods (he has introduced the use of the geometric mean instead of the arithmetic mean) and also to give the index a new name: Historical Index of Human Development (HIHD).²⁶

Based on the data available, Prados has published HIHD indexes about 164 countries. These indexes enable one to sketch a quantitative image generated via the most modern methods of the quality of life validatable for both countries and eras. Consequently, the time and space dynamics of the changes in the quality of life have become constructible. (Figure 8).

Based on the latest findings, the rate of “development” could have been more balanced than was suspected earlier. The region-based comparison also highlights the fact that, compared to other northern and western European countries, a significant improvement was traceable in Hungary between 1870 and 1925. It clear that the increase in the quality of life shows balance between 1870 and 1913, though perhaps a slight slowdown is observable at the turn of the century. Although, it is clear that in the regions of northern and western Europe there was a favorable improvement with higher rates and faster paces of modernization and improvements in quality of life (which

26 Prados, “Improving the Human Development Index.”

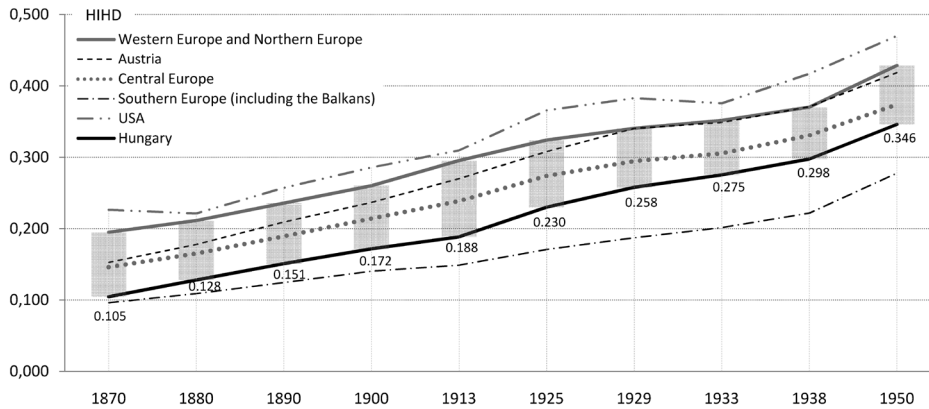


Figure 8. Changes in HIHD in Hungary based on the comparison of international data, 1870–1950

Source: WHD 1870–2015, own editing.

theoretically was correlated to the prospering economy) at the beginning of the twentieth century until the outbreak of World War I. As for the quality of life, which was theoretically (also) in correlated to the prospering status of the economy, The trend commencing in 1913 went onwards, and this contributed to further apparent gap decreases in Hungary as compared to northern and Western European average. This trend stemmed from the increase in national HIHD between 1913 and 1925. Then, it correlated with the slowdown of transformation in the Northern and Western regions between 1925–1929. At the same time, it is also clear that in the Northern and Western European regions, the transformation of the quality of life was asserted with more unfavorable effects due to the recession (1929–1933) than in Hungary. The data also indicate that during the first half of the twentieth century, in 1938 the quality of life as a national average was the closest to the northern and Western European standard: while this average in 1870 was 54% of the former standard, and in 1913 was still just 64%, then in 1938, right before the outbreak of World War II, it took 81 percent. In addition, the “improvement” of national quality of life correlates or in other words relates with the central European processes, while as opposed to the southern- European status, it shows an acceleration in the speed of changes detouring the national quality of life into a favourable direction. Finally, from the perspective of Austria, it is essential to mention that in the decades right after the Austro-Hungarian Comprise, the quality of life shows more remarkable increases in Austria than in Hungary. Practically, Austria converged at an accelerating space towards the quality of life dictated by the

northern and Western European countries, which it actually reached in 1929. From this point onwards, it advanced in complete correlation at the same level.

Conclusion

On the basis of our study, in the narrative of Carpathian Basin, the territory of post-Trianon Hungary was significantly more developed as compared to its surrounding regions. Even prior to the Treaty of Trianon, the break lines already existed, and the internal/peripheral regions had already emerged. As a result, the emergence of these gaps cannot be attributed to the consequences of Treaty of Trianon. The territorial inequalities related to quality of life owned remarkable features: the territory of the country was divided into a western region of the Danube and an eastern part of the Danube. It is essential to emphasize that although the Great Plain had a multi-centered development spatial structure as an agricultural region, it still ensured a sustainable basis for economic stability; and via the developed status of its center divisions it also ensured the balance of transition. These regions were the innovation centers that ensured the background to structure transition and to the temporary expansion of garden cultivation culture. The Treaty of Trianon has had serious consequences, but one must admit that it was not the Treaty of Trianon that resulted in the internal spatial structure which defined the developmental spatial potentials of Hungary for the rest of the twentieth century.

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APPENDIX

Changes in differences in the quality of life (HDI- Human Development Index) in Hungary after the Treaty of Trianon between 1910 and 1930

Remarks on the Table

Adapted details have been published based on the decreasing order of HDI records of 1930.

ID	Identification number. Consists of three parts (separated by periods). First part: processus/district (1) or town (2), second part: codes for a county in the Kingdom of Hungary (1–25), third part: the number for a processus/district or town within a county
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The counties of Hungary in 1930: vm. = vármegye (county), keevm. = közigazgatásilag egyelőre egyesített vármegye (county administratively unified), MH 1933

01 =	Abaúj-Torna vm.	10 =	Győr, Moson és Pozsony keevm.	19 =	Szabolcs és Ung keevm.
02 =	Bács-Bodrog vm.	11 =	Hajdu vm.	20 =	Szatmár, Ugocsa és Bereg keevm.
03 =	Baranya vm.	12 =	Heves vm.	21 =	Tolna vm.
04 =	Békés vm.	13 =	Jász-Nagykun-Szolnok vm.	22 =	Vas vm.
05 =	Bihar vm.	14 =	Komárom és Esztergom keevm.	23 =	Veszprém vm.
06 =	Borsod, Gömör és Kishont keevm.	15 =	Nógrád és Hont keevm.	24 =	Zala vm.
07 =	Csanád, Arad és Torontál keevm.	16 =	Pest-Pilis-Solt-Kiskun vm.	25 =	Zemplén vm.
08 =	Csongrád vm.	17 =	Somogy vm.		
09 =	Fejér vm.	18 =	Sopron vm.		

A	j. = járás (district), rtv. = rendezett tanácsú város (corporate town), szfv. = székesfőváros (royal seat and capital), thjv. = törvényhatósági jogú város (municipal town).
B	1910–1930 HDI difference (100%=1910).
C	The country average of HDI in 1910 100%=0,451, while in 1930 100%=0,461
D	The difference between the relative positions of 1910 and 1930.
E	The direction of the change in position (+).

Sources for Tables

Databases: GHA, MÉTA

Statistical journals: AS 1934, KSH 1969, MH 1933, MSK Ús 39, 42, 46, 58, 83, 86, 93, 99 volume.

Own calculations and compositions.

*

HDI regional differences in the area of Hungary after the Treaty of Trianon broken down by
processus and towns between 1910 and 1930

ID	Name of administrative unit	A	HDI			Compared to the average HDI (%)			Relative position (order)			E
			1910	1930	B (%)	1910	1930	C	1910	1930	D	
2.16.13	Budapest	szfv.	0.933	0.844	-9.55	206.78	183.27	-23.52	1	1	0	
2.16.09	Rákospalota	rtv.	0.635	0.731	15.17	140.70	158.78	18.07	11	2	9	+
2.16.06	Kispest	rtv.	0.673	0.729	8.33	149.19	158.36	9.17	4	3	1	+
2.16.08	Pestszerterzsébet	rtv.	0.638	0.729	14.29	141.27	158.20	16.93	10	4	6	+
2.16.01	Budafok	rtv.	0.575	0.728	26.66	127.42	158.14	30.72	23	5	18	+
2.16.11	Újpest	rtv.	0.662	0.691	4.49	146.60	150.10	3.50	6	6	0	
2.18.01	Sopron	thjv.	0.718	0.686	-4.40	159.04	148.98	-10.06	2	7	-5	
2.14.02	Komárom	rtv.	0.633	0.676	6.69	140.32	146.69	6.37	12	8	4	+
2.10.02	Győr	thjv.	0.687	0.670	-2.50	152.31	145.51	-6.81	3	9	-6	
2.22.01	Kőszeg	rtv.	0.653	0.636	-2.59	144.66	138.06	-6.60	7	10	-3	
1.16.11	Központi (PPSK)	j.	0.552	0.617	11.85	122.20	133.93	11.73	29	11	18	+
2.22.02	Szombathely	rtv.	0.671	0.612	-8.84	148.74	132.85	-15.89	5	12	-7	
2.09.01	Székesfehérvár	thjv.	0.623	0.603	-3.09	137.93	130.97	-6.96	13	13	0	
2.23.01	Pápa	rtv.	0.644	0.602	-6.43	142.65	130.78	-11.86	9	14	-5	
2.16.10	Szentendre	rtv.	0.449	0.588	30.94	99.48	127.63	28.15	108	15	93	+
2.06.01	Miskolc	thjv.	0.609	0.585	-3.99	134.95	126.96	-7.99	14	16	-2	
1.18.01	Csepregi	j.	0.597	0.581	-2.57	132.22	126.23	-5.99	15	17	-2	
1.22.03	Sárvári	j.	0.582	0.576	-1.07	129.06	125.10	-3.96	18	18	0	
2.03.02	Pécs	thjv.	0.581	0.572	-1.50	128.70	124.22	-4.49	19	19	0	
2.10.01	Magyaróvár	rtv.	0.572	0.571	-0.23	126.77	123.92	-2.85	24	20	4	+
1.22.05	Szombathelyi	j.	0.578	0.570	-1.28	127.99	123.80	-4.19	20	21	-1	
2.16.12	Vác	rtv.	0.540	0.567	4.93	119.71	123.08	3.37	33	22	11	+
2.08.04	Szeged	thjv.	0.544	0.564	3.57	120.56	122.35	1.78	32	23	9	+
1.18.04	Soproni	j.	0.545	0.562	3.00	120.85	121.97	1.11	31	24	7	+
2.04.01	Békéscsaba	rtv.	0.393	0.562	43.06	86.99	121.94	34.95	158	25	133	+
1.10.01	Magyaróvári	j.	0.577	0.561	-2.76	127.83	121.80	-6.03	22	26	-4	

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			1910	1930	B (%)	1910	1930	C	1910	1930	D	
1.24.02	Balatonfüredi	j.	0.571	0.557	−2.44	126.49	120.91	−5.58	25	27	−2	
2.11.05	Debrecen	thjv.	0.644	0.557	−13.56	142.74	120.89	−21.85	8	28	−20	
1.16.06	Gödöllői	j.	0.480	0.549	14.38	106.34	119.18	12.84	74	29	45	+
2.15.02	Salgótarján	rtv.	0.515	0.548	6.46	114.01	118.93	4.92	46	30	16	+
1.23.02	Enyingi	j.	0.584	0.545	−6.77	129.44	118.25	−11.20	17	31	−14	
1.18.02	Csornai	j.	0.519	0.542	4.41	114.92	117.57	2.65	43	32	11	+
1.22.01	Celldömölki	j.	0.529	0.541	2.22	117.30	117.48	0.18	37	33	4	+
2.24.02	Zalaegerszeg	rtv.	0.595	0.541	−9.04	131.78	117.44	−14.33	16	34	−18	
1.16.17	Váci	j.	0.524	0.541	3.12	116.15	117.37	1.21	39	35	4	+
1.10.04	Tósziget-csilizközi	j.	0.491	0.538	9.65	108.71	116.79	8.08	70	36	34	+
1.18.03	Kapuvári	j.	0.491	0.538	9.39	108.88	116.70	7.83	69	37	32	+
1.10.03	Sokoróaljai	j.	0.516	0.537	3.99	114.40	116.57	2.17	44	38	6	+
1.21.06	Völgységi	j.	0.530	0.536	1.19	117.44	116.44	−1.00	36	39	−3	
2.23.02	Veszprém	rtv.	0.551	0.536	−2.59	121.99	116.42	−5.56	30	40	−10	
2.13.05	Szolnok	rtv.	0.465	0.534	14.94	103.03	116.03	13.00	89	41	48	+
1.22.06	Vasvári	j.	0.505	0.531	5.29	111.82	115.36	3.54	53	42	11	+
1.14.02	Gesztesi	j.	0.504	0.527	4.66	111.58	114.42	2.84	56	43	13	+
1.22.02	Körmend–németújvári	j.	0.523	0.524	0.23	115.93	113.85	−2.08	40	44	−4	
2.13.03	Kistűjszállás	rtv.	0.577	0.523	−9.46	127.86	113.43	−14.43	21	45	−24	
1.21.04	Simontornyai	j.	0.526	0.522	−0.72	116.45	113.28	−3.17	38	46	−8	
2.14.01	Esztergom	rtv.	0.537	0.520	−3.19	118.91	112.80	−6.11	35	47	−12	
1.14.03	Tatai	j.	0.475	0.518	9.04	105.31	112.52	7.21	78	48	30	+
1.03.01	Baranyavári	j.	0.505	0.516	2.26	111.80	112.02	0.22	54	49	5	+
2.13.04	Mezőtúr	rtv.	0.492	0.515	4.78	108.91	111.82	2.91	68	50	18	+
1.09.04	Székesfehérvári	j.	0.560	0.515	−8.03	124.08	111.81	−12.27	28	51	−23	
1.21.01	Dombóvári	j.	0.500	0.515	2.98	110.78	111.77	1.00	59	52	7	+
1.16.07	Gyömrői	j.	0.462	0.512	10.73	102.44	111.14	8.70	92	53	39	+
1.23.04	Veszprémi	j.	0.483	0.510	5.52	107.08	110.71	3.63	73	54	19	+
1.04.04	Orosházi	j.	0.449	0.509	13.29	99.58	110.54	10.96	106	55	51	+
2.08.03	Hódmezővásárhely	thjv.	0.567	0.506	−10.82	125.59	109.75	−15.84	27	56	−29	
1.04.05	Szarvasi	j.	0.510	0.504	−1.14	112.95	109.42	−3.53	48	57	−9	
2.16.02	Cegléd	rtv.	0.497	0.502	1.04	110.09	108.99	−1.10	64	58	6	+
2.17.01	Kaposvár	rtv.	0.498	0.501	0.70	110.31	108.84	−1.47	61	59	2	+
1.16.13	Monori	j.	0.446	0.500	12.05	98.87	108.55	9.68	111	60	51	+
1.15.06	Szobi	j.	0.476	0.499	4.69	105.50	108.22	2.72	77	61	16	+
1.10.02	Pusztai	j.	0.466	0.497	6.68	103.23	107.90	4.67	88	62	26	+

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1.09.05	Váli	j.	0.500	0.494	-1.17	110.68	107.18	-3.50	60	63	-3	
1.17.09	Tabi	j.	0.540	0.494	-8.55	119.57	107.14	-12.43	34	64	-30	
1.23.01	Devecseri	j.	0.496	0.493	-0.68	109.87	106.92	-2.94	66	65	1	+
1.08.03	Mindszenti	j.	0.399	0.492	23.31	88.45	106.86	18.42	153	66	87	+
2.24.01	Nagykanizsa	rtv.	0.519	0.492	-5.18	114.95	106.80	-8.15	41	67	-26	
1.04.01	Békési	j.	0.461	0.489	6.14	102.14	106.22	4.09	94	68	26	+
1.06.06	Putnoki	j.	0.450	0.489	8.69	99.64	106.12	6.48	103	69	34	+
1.23.03	Pápai	j.	0.508	0.488	-4.08	112.64	105.86	-6.78	49	70	-21	
2.07.01	Makó	rtv.	0.504	0.485	-3.79	111.62	105.22	-6.40	55	71	-16	
1.21.05	Tamási	j.	0.501	0.483	-3.51	111.00	104.94	-6.06	58	72	-14	
2.12.01	Eger	rtv.	0.429	0.483	12.78	94.96	104.94	9.98	124	73	51	+
1.04.02	Gyomai	j.	0.447	0.482	7.68	99.10	104.56	5.46	110	74	36	+
1.03.05	Pécsvárad	j.	0.479	0.481	0.42	106.08	104.38	-1.70	75	75	0	
1.16.04	Biai	j.	0.462	0.479	3.82	102.33	104.09	1.76	93	76	17	+
1.16.16	Ráckevei	j.	0.477	0.476	-0.23	105.62	103.25	-2.37	76	77	-1	
1.24.03	Keszthelyi	j.	0.470	0.475	1.01	104.23	103.17	-1.07	83	78	5	+
2.08.02	Szentes	rtv.	0.503	0.474	-5.64	111.38	102.98	-8.40	57	79	-22	
1.03.03	Mohácsi	j.	0.450	0.473	5.26	99.65	102.78	3.13	102	80	22	+
2.11.04	Hajdusoboszló	rtv.	0.460	0.473	2.87	101.94	102.74	0.81	96	81	15	+
1.24.11	Zalaszentgróti	j.	0.464	0.473	1.96	102.77	102.68	-0.10	90	82	8	+
1.06.04	Miskolci	j.	0.463	0.473	2.18	102.55	102.67	0.12	91	83	8	+
1.24.09	Tapolcai	j.	0.452	0.473	4.56	100.18	102.63	2.46	99	84	15	+
1.09.03	Sárbogárdi	j.	0.487	0.473	-2.98	107.92	102.59	-5.33	71	85	-14	
1.16.15	Pomázi	j.	0.428	0.472	10.41	94.73	102.49	7.76	125	86	39	+
2.19.01	Nyíregyháza	rtv.	0.472	0.472	0.00	104.47	102.36	-2.11	81	87	-6	
1.11.02	Püspökladányi	j.	0.467	0.471	0.96	103.40	102.29	-1.11	87	88	-1	
1.17.05	Lengyeltóti	j.	0.449	0.471	4.73	99.54	102.15	2.61	107	89	18	+
1.16.05	Dunavecsei	j.	0.495	0.470	-5.03	109.73	102.11	-7.63	67	90	-23	
2.16.07	Nagykőrös	rtv.	0.512	0.470	-8.23	113.41	101.98	-11.44	47	91	-44	
1.24.08	Sümegi	j.	0.452	0.470	3.98	100.05	101.93	1.89	100	92	8	+
1.07.05	Torontáli	j.	0.356	0.469	31.79	78.84	101.81	22.97	169	93	76	+
1.21.03	Központi (Tolna)	j.	0.515	0.469	-9.07	114.16	101.72	-12.44	45	94	-49	
1.09.02	Móri	j.	0.421	0.467	10.86	93.25	101.29	8.04	137	95	42	+
1.17.02	Csurgói	j.	0.506	0.464	-8.24	112.02	100.71	-11.31	52	96	-44	
1.17.03	Igali	j.	0.485	0.464	-4.33	107.42	100.70	-6.72	72	97	-25	
1.22.04	Szentgotthárd-muraszombati	j.	0.445	0.464	4.21	98.55	100.63	2.08	113	98	15	+

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1.09.01	Adonyi	j.	0.450	0.462	2.50	99.80	100.24	0.44	101	99	2	+
1.24.07	Pacsai	j.	0.415	0.458	10.24	91.95	99.32	7.37	142	100	42	+
1.23.05	Zirci	j.	0.427	0.457	6.91	94.65	99.15	4.50	127	101	26	+
1.24.10	Zalaegerszegi	j.	0.443	0.454	2.51	98.08	98.51	0.43	115	102	13	+
2.13.02	Karcag	rtv.	0.568	0.452	−20.45	125.79	98.04	−27.75	26	103	−77	
1.17.06	Marcali	j.	0.475	0.451	−4.91	105.20	98.01	−7.19	79	104	−25	
1.24.05	Nagykanizsai	j.	0.443	0.451	1.76	98.25	97.96	−0.29	114	105	9	+
1.24.06	Novai	j.	0.394	0.450	14.37	87.24	97.77	10.53	157	106	51	+
1.05.01	Berettyóújfalusi	j.	0.427	0.450	5.39	94.62	97.71	3.09	128	107	21	+
2.16.03	Kalocsa	rtv.	0.471	0.450	−4.45	104.34	97.69	−6.65	82	108	−26	
1.15.01	Balassagyarmati	j.	0.461	0.450	−2.39	102.12	97.66	−4.46	95	109	−14	
1.07.03	Kőzponti (CsAT)	j.	0.421	0.450	6.72	93.38	97.64	4.26	136	110	26	+
2.11.03	Hajdunánás	rtv.	0.496	0.449	−9.39	109.90	97.58	−12.33	65	111	−46	
1.05.05	Sárréti	j.	0.412	0.449	8.94	91.27	97.42	6.15	146	112	34	+
1.14.01	Esztergomi	j.	0.425	0.447	5.26	94.13	97.08	2.95	131	113	18	+
1.01.04	Sziksói	j.	0.445	0.446	0.18	98.61	96.79	−1.81	112	114	−2	
1.15.02	Nógrádi	j.	0.450	0.444	−1.16	99.62	96.47	−3.14	104	115	−11	
1.01.05	Tornai	j.	0.450	0.444	−1.16	99.60	96.46	−3.14	105	116	−11	
1.17.07	Nagyatádi	j.	0.473	0.444	−6.13	104.71	96.31	−8.40	80	117	−37	
1.17.01	Barcsi	j.	0.470	0.443	−5.83	104.13	96.09	−8.04	84	118	−34	
1.03.02	Hegyháti	j.	0.439	0.442	0.65	97.36	96.01	−1.35	120	119	1	+
1.03.07	Szentlőrinci	j.	0.497	0.441	−11.27	110.11	95.73	−14.37	63	120	−57	
1.06.07	Sajószentpéteri	j.	0.441	0.440	−0.27	97.67	95.44	−2.23	117	121	−4	
1.06.05	Ózdi	j.	0.417	0.437	5.02	92.29	94.97	2.68	139	122	17	+
1.21.02	Dunaföldvári	j.	0.427	0.434	1.54	94.70	94.22	−0.48	126	123	3	+
1.17.04	Kaposvári	j.	0.454	0.434	−4.39	100.51	94.16	−6.35	97	124	−27	
2.02.01	Baja	thjv.	0.453	0.433	−4.36	100.26	93.95	−6.31	98	125	−27	
1.15.05	Sziráki	j.	0.405	0.432	6.84	89.69	93.89	4.20	149	126	23	+
1.05.04	Derecskei	j.	0.469	0.432	−7.81	103.91	93.86	−10.04	86	127	−41	
2.25.01	Sátoraljaújhely	rtv.	0.497	0.432	−13.08	110.16	93.82	−16.34	62	128	−66	
1.04.06	Szeghalmi	j.	0.413	0.432	4.46	91.54	93.70	2.16	144	129	15	+
1.16.03	Aszódi	j.	0.398	0.431	8.18	88.22	93.51	5.29	155	130	25	+
2.03.01	Mohács	rtv.	0.422	0.430	1.87	93.52	93.35	−0.18	135	131	4	+
1.25.04	Tokaji	j.	0.415	0.428	2.92	92.05	92.82	0.78	141	132	9	+
1.01.01	Abaújszántói	j.	0.414	0.426	2.97	91.74	92.56	0.82	143	133	10	+
2.08.01	Csongrád	rtv.	0.334	0.426	27.60	74.00	92.52	18.52	176	134	42	+
1.16.08	Kalocsai	j.	0.448	0.425	−5.14	99.22	92.22	−7.00	109	135	−26	

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1.01.03	Gönci	j.	0.398	0.423	6.11	88.26	91.76	3.50	154	136	18	+
2.12.02	Gyöngyös	rtv.	0.274	0.421	53.76	60.64	91.37	30.72	194	137	57	+
1.24.01	Alsólendvai	j.	0.508	0.420	-17.20	112.48	91.26	-21.22	50	138	-88	
1.16.09	Kiskőrösi	j.	0.387	0.420	8.57	85.69	91.15	5.46	159	139	20	+
1.16.12	Kunszentmiklósi	j.	0.416	0.418	0.62	92.15	90.85	-1.30	140	140	0	
1.13.03	Kőzponti (JNSz)	j.	0.372	0.418	12.55	82.37	90.84	8.46	164	141	23	+
1.03.04	Pécsi	j.	0.438	0.417	-4.77	97.09	90.59	-6.49	121	142	-21	
1.17.08	Szigetvári	j.	0.423	0.417	-1.38	93.67	90.52	-3.16	133	143	-10	
1.13.04	Tisza alsó	j.	0.417	0.416	-0.21	92.46	90.40	-2.05	138	144	-6	
1.05.02	Biharkeresztesi	j.	0.425	0.415	-2.48	94.24	90.05	-4.19	130	145	-15	
1.06.02	Mezőcsáti	j.	0.409	0.415	1.37	90.61	90.00	-0.61	147	146	1	+
1.03.06	Siklói	j.	0.519	0.414	-20.10	114.92	89.97	-24.95	42	147	-105	
1.05.03	Cséffa-nagyszalontai	j.	0.413	0.413	0.03	91.52	89.70	-1.82	145	148	-3	
2.16.14	Kecskemét	thjv.	0.423	0.412	-2.61	93.81	89.52	-4.29	132	149	-17	
1.02.03	Jánoshalmi	j.	0.422	0.412	-2.36	93.58	89.52	-4.05	134	150	-16	
1.07.01	Battonyai	j.	0.383	0.412	7.77	84.77	89.51	4.74	160	151	9	+
1.15.04	Szécsényi	j.	0.380	0.412	8.55	84.13	89.48	5.35	161	152	9	+
1.02.02	Bajai	j.	0.404	0.411	1.65	89.52	89.16	-0.36	150	153	-3	
2.13.06	Túrkeve	rtv.	0.439	0.410	-6.64	97.37	89.07	-8.30	119	154	-35	
1.25.03	Szerencsi	j.	0.432	0.409	-5.35	95.73	88.77	-6.95	123	155	-32	
1.16.02	Alsódabasi	j.	0.371	0.407	9.67	82.28	88.41	6.13	165	156	9	+
2.15.01	Balassagyarmat	rtv.	0.442	0.404	-8.54	97.87	87.70	-10.17	116	157	-41	
1.01.02	Encsi	j.	0.406	0.403	-0.88	90.00	87.41	-2.59	148	158	-10	
1.07.04	Mezőkovácsházi	j.	0.301	0.398	32.25	66.68	86.41	19.73	191	159	32	+
1.04.03	Gyulai	j.	0.302	0.397	31.52	66.81	86.10	19.29	189	160	29	+
1.16.01	Abonyi	j.	0.341	0.396	15.96	75.65	85.96	10.31	175	161	14	+
1.12.03	Hatvani	j.	0.365	0.395	8.18	80.93	85.79	4.85	167	162	5	+
1.12.06	Tiszafüredi	j.	0.427	0.393	-7.81	94.52	85.38	-9.14	129	163	-34	
1.06.03	Mezőkövesdi	j.	0.354	0.391	10.21	78.52	84.80	6.27	171	164	7	+
1.12.02	Gyöngyösi	j.	0.347	0.390	12.19	76.97	84.61	7.64	174	165	9	+
1.06.01	Edelényi	j.	0.404	0.388	-3.95	89.49	84.22	-5.27	151	166	-15	
2.11.01	Hajduböszörmény	rtv.	0.507	0.388	-23.60	112.38	84.13	-28.25	51	167	-116	
1.15.03	Salgótarjáni	j.	0.311	0.381	22.29	68.98	82.65	13.68	184	168	16	+
1.25.02	Sárospataki	j.	0.348	0.377	8.49	77.07	81.93	4.86	173	169	4	+
1.12.01	Egri	j.	0.326	0.377	15.80	72.13	81.84	9.71	179	170	9	+
1.02.01	Bácsalmási	j.	0.398	0.376	-5.42	88.12	81.66	-6.46	156	171	-15	

ID	Name of administrative unit	A	HDI			Compared to the average HDI (%)			Relative position (order)			E
			1910	1930	B (%)	1910	1930	C	1910	1930	D	
1.13.06	Tiszai közép	j.	0.372	0.375	0.76	82.45	81.40	−1.05	163	172	−9	
1.13.02	Jászsági felső	j.	0.314	0.370	17.87	69.49	80.25	10.76	183	173	10	+
1.13.05	Tiszai felső	j.	0.400	0.368	−8.10	88.66	79.84	−8.82	152	174	−22	
1.08.01	Csongrádi	j.	0.239	0.368	53.61	53.04	79.83	26.79	201	175	26	+
1.13.01	Jászsági alsó	j.	0.355	0.367	3.24	78.69	79.60	0.91	170	176	−6	
1.16.14	Nagykátai	j.	0.264	0.366	38.36	58.59	79.43	20.84	197	177	20	+
1.20.02	Fehérgyarmati	j.	0.373	0.363	−2.73	82.68	78.80	−3.88	162	178	−16	
1.20.04	Vásárosnaményi	j.	0.320	0.361	12.93	70.90	78.45	7.55	181	179	2	+
1.24.04	Letenyei	j.	0.357	0.361	1.10	79.09	78.35	−0.74	168	180	−12	
2.11.02	Hajduhadház	rtv.	0.440	0.360	−18.09	97.40	78.17	−19.23	118	181	−63	
1.19.01	Dadai alsó	j.	0.366	0.358	−2.11	81.10	77.79	−3.31	166	182	−16	
2.21.01	Szekszárd	rtv.	0.469	0.357	−23.99	103.99	77.45	−26.54	85	183	−98	
2.04.02	Gyula	rtv.	0.318	0.355	11.56	70.46	77.01	6.56	182	184	−2	
2.16.05	Kiskunhalas	rtv.	0.434	0.354	−18.56	96.20	76.77	−19.43	122	185	−63	
1.07.02	Eleki	j.	0.311	0.349	12.18	68.85	75.69	6.83	185	186	−1	
2.13.01	Jászberény	rtv.	0.333	0.348	4.77	73.68	75.64	1.96	177	187	−10	
1.16.10	Kiskunfélegyházi	j.	0.267	0.345	29.03	59.20	74.84	15.64	196	188	8	+
2.16.04	Kiskunfélegyháza	rtv.	0.270	0.343	26.79	59.85	74.36	14.51	195	189	6	+
1.25.01	Bodrogekői	j.	0.320	0.338	5.39	70.98	73.30	2.32	180	190	−10	
1.20.01	Csengeri	j.	0.301	0.337	11.88	66.66	73.07	6.41	192	191	1	+
1.05.06	Székelyhídi	j.	0.332	0.334	0.52	73.65	72.55	−1.11	178	192	−14	
1.08.02	Kiskundorozsma	j.	0.301	0.333	10.39	66.78	72.23	5.45	190	193	−3	
1.12.04	Hevesi	j.	0.354	0.332	−6.19	78.36	72.03	−6.34	172	194	−22	
1.11.01	Kőzponti (Hajdu)	j.	0.310	0.331	7.03	68.60	71.94	3.34	186	195	−9	
1.19.02	Dadai felső	j.	0.302	0.331	9.48	66.93	71.80	4.86	188	196	−8	
1.12.05	Pétervásári	j.	0.253	0.325	28.49	56.06	70.57	14.52	199	197	2	+
1.19.09	Tiszai	j.	0.306	0.294	−4.07	67.91	63.83	−4.08	187	198	−11	
1.19.03	Kisvárdai	j.	0.290	0.275	−5.01	64.22	59.77	−4.45	193	199	−6	
1.19.07	Nyírbátori	j.	0.225	0.255	13.64	49.81	55.46	5.65	203	200	3	+
1.20.03	Mátészalkai	j.	0.256	0.251	−1.80	56.72	54.58	−2.14	198	201	−3	
1.19.08	Nyírbogdányi	j.	0.220	0.240	9.02	48.82	52.15	3.33	204	202	2	+
1.19.05	Nagykállói	j.	0.240	0.210	−12.39	53.17	45.64	−7.53	200	203	−3	
1.19.06	Nyírbaktai	j.	0.226	0.209	−7.58	50.10	45.37	−4.73	202	204	−2	
1.19.04	Ligetajai	j.	0.148	0.149	0.86	32.71	32.32	−0.38	205	205	0	



Inner Territory and What Lies Behind It: An Inquiry Into the Hungarian Urban Hierarchy in 1930

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The study of the emergence of the Hungarian urban hierarchy raises a number of methodological questions concerning the complex settlement structure and the unique urban development of the Carpathian Basin. Research on the Hungarian urban hierarchy reveals a strong positive correlation between the position of the cities in the hierarchy and the complexity of their urban functions. The aim of my inquiry is to provide a complex picture of the Hungarian urban hierarchy of the 1930s, or, more precisely, the potential hierarchies. I approach this issue from various perspectives. As there are different definitions of cities in judicial (administrative), statistical, economic, sociological, and geographical contexts, the questions remain open: what do we consider a city, and what makes a settlement a city in the interwar period in Hungary? One of the cornerstones of my research is the issue of the outskirts. In administrative terms, we can speak about a unit, but due to the differing patterns of urban development in Hungary, the relationship between the core territory and its periphery is complex. Since the classic homestead theory has been challenged, hierarchical investigations have had to address the problems involved in dividing the data between urban cores and urban peripheries. Hierarchic rankings based on the incorporation of outskirts are quite different from rankings which omit the latter zones, which tend to be dominated by scattered farms not linked functionally to the urban core. The differences also show strong regional patterns. This study, based on statistical data, tries to highlight these differences in the urban hierarchy using this new approach. This way, it becomes possible to put the study of the Hungarian urban hierarchy in the interwar period on a new methodological footing which differs in several significant ways from the foundations of earlier research on the subject in Hungary.

Keywords: periphery issue, settlement structure, urban hierarchy, Hungarian urban network, historical geography.

“If society is inevitably spatial and the concept of space is impossible to separate from its social content, it not only means that social processes are to be analysed as they spatially present, but also means that what we consider to be spatial features are to be analysed theoretically and within social concepts.”¹

1 Massey, *Spatial Division of Labour*.

In today's era of interdisciplinarity, when the breakup of formal boundaries between disciplines is a common phenomenon, it is not easy to find a common language, common sets of concepts, and shared methods for different disciplines to use in their common research fields.² A good example of this is the research on urban history, especially the research on urban hierarchies. The complexity of this research topic is illustrated by the fact that it is a relevant field and perspective of inquiry in several disciplines, including geography, history, sociology, statistics, and economics. If we were to ask which discipline offers the most relevant, most fitting definition for the city as a form of settlement, then the answer is, simply, all of them.

Any discipline that has the city within its scope of interest has had to come up with a fitting definition, fitting, at least, from their respective points of view. Understandably, each discipline identifies different factors as decisive, thus leading to different notions of the city. "In the case of a complex, complicated entity such as the city in particular, we can consider these differences natural."³ Each discipline paints a one-sided picture of the city's essence as it looks at the city from different angles and uses different conceptual sets to approach what it considers the most relevant feature of the city. Even if these essential factors are listed in a complex definition, the weight and the importance of them would also turn out to be differentiated at different moments in time. So, as a researcher, I cannot decide which discipline is right and which is not, because as a whole, these factors are not comparable across disciplines. "Sociology is no exception: it cannot shed light on the complex reality of the city", Tibor Mendöl wrote in 1939.⁴ Sociology uses only one possible approach, and it understands the concept within its own context when grasping at the definition of city, but other perspectives are present in other disciplines, and a definition is not exclusive to any point of view.⁵ However, I find that the geographic approach is currently dominant in the research in Hungary.⁶

My long-term goal is to present a complex picture of the city hierarchy in Hungary in the 1930s. More specifically, I offer a picture of potential city hierarchies. I plan to investigate a city hierarchy and to approach the issue from

2 Beluszky and Győri, "A város a láz a nyugtalanság."

3 Tóth, "Tér- és időbeli sajátosságok a magyar városodásban," 55.

4 Mendöl, "Az alföldi városokról," 218.

5 Ibid., 218–19.

6 Bácskai and Nagy, *Piacörzöttek, piacközpontok*; Timár, *Vidéki városlakók*; Beluszky and Győri, *Magyar városhálózat*.

several perspectives. The explanation for this is that the different disciplines work with different definitions of the city, which are definitely represented in research papers on urban history in the recent years.⁷ Legal (administrative), statistical, economic, sociological, and geographic concepts of the city all create different understandings of it. Why should not we talk about the definition of the city in the context of these city concepts, that is, administrative, statistical, sociological, etc. urban hierarchies. This will give way for a number of new aspects for the analysis of the settlement structure and hierarchy.

The background to the methodology I use for my urban hierarchy study, which is based on the geographic city concept, has already been published in the *Rural History Yearbook*⁸. The present work is a preliminary study, and I examine only one important methodological question: the question of the periphery, which is methodologically prominent both in geographic, sociological, and statistical urban hierarchy studies. The subject has been discussed a great deal both in works on urban geography and settlement stock,⁹ but it is rarely the true focus, except in studies which were written in the interwar period. A researcher who examines the Horthy-era town-farm theme can easily feel as if time has come to a standstill and the “research” has taken no steps forward. One major reason for this is that nowadays there is very little interest in similar issues and studies among professionals and readers alike. There is no question, however, that very little is known about the subject in a contemporary setting. It is essential that we re-approach the question, as further study could result in a better understanding of the hierarchical network of cities between the two world wars.¹⁰

Based on the factors outlined above, I find it justified to incorporate new approaches and methods into the research of the town-city relationship system and the city hierarchy between the two world wars. This allows us to get closer to the actual state of things.

The questions remain open: where does the periphery belong? How did the periphery affect the hierarchical ranking of the settlements between the two world wars? My aim in this preliminary study is to answer these questions empirically.

7 Bácskai, “Vas megye várostörténeti munkáinak,” 137–52.

Gyáni, *A város mint zárt és nyitott tér*, 205–20.

8 Bán, Város, hierarchia, pozíció.

9 Timár, “Az alföldi és dunántúli városok,” 42–55; Beluszky and Győri, *Magyar városhálózat*; Beluszky, “Az Alföld szindróma;” Erdei, *Magyar Tanya*; Mendöl, “Az alföldi városokról,” 217–32.

10 Szilágyi, “Város és tanya kapcsolata.”

Periphery or Boondocks

The centuries-old history of the evolution of the “scattered farm” of the plains, by the nature of its complexity, has yet to be clearly unraveled. In the interwar period, ethnographer István Györffy hypothesized that the appearance of these “scattered farms” could be connected with the nomadic lifestyle of Hungarian settlers during the so-called Conquest.¹¹ On the basis of this hypothetical connection, he derived the distinctive type of Hungarian city known as the “Alföld country town.” His position was that these cities used to be “two internal plot” (“*két beltelkes*”) so-called hutch-garden (“*ólas-kertes*”) settlements, which he thought to be the predecessors of the later scattered farm cities. His perspective was widely accepted by historians, geographers, ethnographers, and sociologists, so this concept became widespread. The idea that Kecskemét might also have been “two internal plot” settlements once came up,¹² although no evidence has emerged to this day in support of this theory. Furthermore, the earliest maps which allow for morphological comparison suggest that it is unpersuasive. Also, at the end of the eighteenth century, quite a few plains settlements had this two inlot system. One could hardly base the notion that this was a prevailing system solely on the other two of the three cities in question, Cegléd and Nagykőrös, which exhibit this form. In recent years, the formation of the farms has been seen in new light thanks to István Orosz’s research on the Modern period land use of these farms on the plains.¹³ It shows that at the start of the eighteenth century, at least 107 settlements were listed on the Great Hungarian Plains where “*parlagoló*”¹⁴ agriculture was present, and plough fields and grasslands alternate systematically. Typically, a third of the land was used in a “*parlagoló*” system because communities on plains which were used to support livestock found it easier to renew grasslands using this method. One precondition of this was to have extended borders (because without extended borders, the “migration” of plough fields and hayfields was impossible to execute) and also to keep the population low in relation to these borders. The latter was important, since a growing population caused the grasslands to shrink with the extension of plough fields. Therefore, with a growing population, “*parlagoló*” systems only

11 Györffy, *Magyar tanya*, 72–76.

12 Szilágyi, *Kecskemét várostörténeti atlasz*, 10–11.

13 Orosz “Parlagoló földművelés az Alföldön,” 2014. – We are saying thank you to Professor István Orosz for his manuscript.

14 Hungarian soil shifter agricultural system in which one part remains unsown.

remained feasible as long as the land could be extended beyond the borders by the inclusion of new fields (plains). As the population of the Great Plain grew steadily in the eighteenth century, there were two main options for the “*parlagoló*” settlements; either to rent or buy new plains like Kecskemét or, if this was not possible, to give up “*parlagolás*” (often due to outside pressure). Whichever option was chosen, due to the growing demand for grains, further fields had to be cultivated, facilitating and speeding up the spread of farms on the borders. Farms existed even before the eighteenth century, mostly as a consequence of the “*parlagoló*” system. The use of a “*parlagoló*” system meant that a farmer’s land remained a single unit (as opposed to pressure cultivation), and this was both an indispensable prerequisite of modern agriculture and also allowed for the development of scattered farm agriculture. It is hardly a coincidence, then, that the boundaries of nineteenth-century scattered farm agriculture coincided with the spread of the earlier “*parlagoló*” system on the plains.¹⁵

The economic function of agrarian gardens changed seasonally. From spring to late autumn, they were used for plant production, but in winter they were used to keep animals, and the food accumulated during the year provided food for the animals in the cold months. The agrarian garden under cultivation is known as a hibernacle. Early in the spring, the animals were kept on the fresh lawn between the gardens until April, when farmers were obliged to take their livestock out to the common pastures (and they faced punishment if they failed to do so). It is therefore evident that these agrarian gardens were one part of the estate. They lay on the city’s borders, and they were privately owned. These properties were often called moneyed gardens in the common parlance, as they were freely given and sold. Most of them lay on the southern boundary, beyond the inner Pasture belt, on the urban land, but there were also agrarian gardens in the west, on the border of the village of Nyíri and in Talfáj, which is the northern area of the city of Kecskemét today. All of them used to be moneyed agrarian garden, or at least the sources indicate that buildings (agricultural) had been erected on them by the seventeenth century. The construction of these kinds of building on land used for this purpose, however, only became common practice at the beginning of the eighteenth century.¹⁶ Quite a few of these properties also had dug wells, which increased the value of the estates. The water from these wells was consumed by the workers on the scattered farm, but

15 Orosz, *Parlagoló földművelés*, 14–15.

16 Czettler, *A tanyakérdés*, 443–446.

from November to April, the wells were used to provide water for the animals, though it may also have been used for irrigation in smaller quantities. By the eighteenth century, large livestock farms gave the city its main economic profile. The domestic animals (milking cows, work stock) were usually kept close to the city and placed on the inner pastures. The animals intended for sale for their meat were placed on distant and rented plains, and they were brought closer to the town just before sale. Large herds were needed to keep huge supplies of livestock. When a city rented out fields, the better-quality parts with softer soil were separated and were distributed between the cattle and horse owners. The so called “livestock owner” (*marhásabb*) farmers were given whole hibernacles, and the less wealthy were given smaller parts. These agrarian gardens on the plains were called “scattered farms donated by the town”.¹⁷ The enclosed parts were then cultivated, ploughed, sown, or mowed. Like the “moneyed agrarian gardens” (*pénzes mezsei kert*) in the city borders, they were hibernacles and were considered prohibited lands. Since agrarian gardens built on rented plains were not the property of Kecskemét, in general no buildings were constructed on them, given the renting conditions.

Due to the different ownership situation, the two types of agrarian garden differed not only in appearance but also in function. Though both the “moneyed agrarian gardens” (*pénzes mezsei kert*) and the “city’s donation gardens” could be embodied. (The latter only until the lease over the plains lasted.) The sources indicate that the agrarian gardens that were formed in the seventeenth and eighteenth centuries and had different agricultural buildings erected and wells dug on them began to be called scattered farms to differentiate them from the town’s gift agrarian gardens, which had much simpler functions. In fact, in these “moneyed agrarian gardens” (*pénzes mezsei kert*) it is possible to recognize the later (nineteenth and twentieth century) scattered farms, which were based on plant production. The spectacular rise in the number of gardens accelerated the transformation of gardens by the fact that, due to bad weather conditions in the area, it was necessary to produce the necessary wheat locally. Within the given geographic and economic context, the only viable route for this was to break up lands that were previously had not been tilled or cultivated. However, given the lower quality of the less-bound sandy soils of these lands, their capacity for production was exhausted after a few years of field cultivation, and most of them were not suitable for grazing for a long time. With the transformation of the

17 Szilágyi, *Kecskemét várostörténeti atlasz*.

methods of land use, the surrounding sand became mobile and began to move, a process which was significantly accelerated by climate change. The eighteenth century bore witness to warmer and drier weather in the area, as a result of which Lake Fertő was already low in the 1720s and even dried up twice, first in 1740 and then in 1773.¹⁸ The limited extent of arable land, the narrowing of the pastures, the inability to rent new plains which could be used for planning and grazing, and the warming of the climate after 1745 all contributed to a shift in the second half of the eighteenth century, as scattered farms became increasingly numerous on the borders. This process was captured as a snapshot of maps by the first military survey. With the transformation of “moneyed agrarian gardens” (*pénzes mezei kertek*), a new kind of farm management emerged based not on animal husbandry but plant production. This process was promoted by planting forests and orchards, viticulture, and last but not least, peaking grain prices from the middle of the nineteenth century. Additional momentum was brought by the appearance of the railroad.¹⁹

If we move to a specific conceptual background, it can be seen that all disciplines have put the scattered farm in different contexts, and everyone has approached the concept from a different perspective, just like the concept of the city, as mentioned in the introduction. Offering a definition, however, is always a perilous gesture, as any definition assigns significance to some aspects while apparently excluding others. Scattered farms have been examined from the perspectives of public administration (law), geography, sociology, economics, and ethnography.²⁰ In this case, I present two types of definitions: geographic and sociological.

Geography has basically a landscape-oriented approach. Settlements are examined from the perspective of the relationship between man and landscape. In addition, the landscape itself offers opportunities for people in the given space, and geographers also consider how these opportunities are utilized by the people living there. The first researcher who looked at Nyíregyháza’s “bush formation farms” (*bokortanyák*) from the perspective of geography and gave a definition of them was Gyula Simkó. He was followed by a number of geographers, including Tibor Mendöl. Of the geographic approaches I am going to mention, the definition of certain communities as “scattered settlement” (*szórványtelepülés*) is one. In most cases, these farms were permanently inhabited by colonies, though

18 Rácz, “Magyarország környezettörténete,” 200.

19 Szabó, “A kecskeméti szőlő- és gyümölcstermesztés,” 6.

20 Erdei, *Magyar tanya*.

administratively these colonies belonged to a particular settlement but formed a separate landscape.²¹ This interpretation of the scattered farm as a settlement within a settlement constituted a new approach.

The sociological approach, represented by Ferenc Erdei, contrasts with the notion of some cohesion between the scattered farm and the settlement (town/village) and suggests instead a geographic concept: the accessory settlement. This settlement is commonly referred to as an agricultural area within the living space of a given settlement. According to Erdei, the scattered farm was only of economic importance, and the place of residence was only secondary, because the actual homes of these lands as temporary domiciles were within the inner city. In addition, the established road network itself constituted another important argument for the relevance of the sociological approach. There was little to no connection between the farms, as in most cases the roads only led to the given settlement/town.²²

To sum up, the two disciplines approached the economic and social factors of the farm and the city itself from different perspectives. The main starting point for the scattered farm is the extent to which it could be said to constitute a long-term form of settlement: periodically or permanently. Given these differences in perspective, it was only a matter of time before the representatives of the two disciplines arrived at varying interpretations of the scattered farm.

Given the uniqueness of the scattered farms (as settlement types), there is little mention of it in the international secondary literature, but the question of the Hungarian scattered farm and the outside area has attracted the attention of some foreign researchers, most notably, that of Berlin historian Konrad Schünemann (1901–1940). Professor A. N. J. Den Hollander has also written an accomplished book and some articles about the Hungarian Great Plain.²³ This book is a rarity in this series of historical, sociological, and ethnographic works. In Hungary there is very rich secondary literature on the scattered farm.²⁴ A smaller library could be filled with the scholarly works in Hungarian on this subject. A 1786 book by Samuel Tessedik comes to mind,²⁵ and the works by the aforementioned Ferenc Erdei and Tibor Mendöl are also worth mentioning.

21 Erdei, *Magyar tanya*, 22–24.

22 Erdei, *Magyar tanya*.

23 Den Hollander, *Az Alföld települései és lakói*; Den Hollander, *The Great Hungarian Plain: a European Frontier Area* (I–II).

24 Szabó, *A debreceni falurendszer*; Erdei, *Magyar Tanya*; Györffy, *Magyar falu, magyar ház*; Szabó, *A kecskeméti szőlő- és gyümölcstermesztés*.

25 Thessedik, *A paraszt ember Magyarországban*.

Erdei and Mendöl both dealt with domestic farm research, and in some cases they differed significantly in their views.²⁶ In this paper, I focus more on empirical research.

The Methodology of the Research

My inquiry focuses on one specific moment in the history of Hungary: 1930, when a census was taken. By then, the situation of the country had stabilized after a period of relative economic prosperity (1925–29). These four years had been characterized by rapid growth.²⁷ The world economic crisis (1929–1930) only caused stagnation at first, but a significant decline began in 1931.

One of the cornerstones of my preliminary study is that I separate the data concerning the inlot downtown and the data concerning the total area (the administrative town), so I set up two separate hierarchical ranges. Thus, the two territorial units are empirically comparable. This perspective is provided by the diverse development of the settlements in the country. I am referring to the differences between the settlements in the Great Plain and the settlements in Transdanubia and western parts of the country, but in a larger context I would also mention the differences between Eastern European and Western European urban development.²⁸ Another important methodological background for this model is that the analysis of the population size and employment structure of settlements which contain outskirts between the two world wars does not necessarily reflect the real characteristics of the city network. Rather, it reflects the ideas of less well-informed researchers who leave out of consideration the critical analysis of historical statistical data.²⁹

The point of view of the research topic is not completely unprecedented. However, the previous works,³⁰ in contrast with my study, only accomplished the

26 See the discussion: Mendöl, “Néhány szó az alföldi városokról,” 217–32; Mendöl, *Egy könyv a magyar faluról*, 204–8; Mendöl, *Megjegyzések Erdei Ferenc*, 113–15; Erdei, *Magyar tanya*; Erdei, *Tanyás települések földrajzi szemlélete*, 103–13; Publications about the discussion: Timár, “Sociology and Geography,” 86–92; Timár, “Vidéki városok,” 49–51; Timár et al., “Vita a magyar városokról,” 617–28; Szilágyi, “Város és tanya kapcsolata.”

27 Tomka, *Gazdasági növekedés, fogyasztás*.

28 Timár, “Az alföldi és dunántúli városok,” 42–55; Erdei, *Magyar tanya*; Gyáni, *A város mint nyitott és zárt tér*, 205–20.

29 Timár, “Az alföldi és dunántúli városok,” 42–55.

30 Erdei, *Magyar Tanya*; Mendöl, *Az alföldi városokról*, 217–32; Mendöl, *Megjegyzések Erdei Ferenc*, 113–15; Timár, *Szociológia és geográfia*.

separation of the external and internal territory in a representative settlement layer, namely cities with legal implications.

In the course of my research, I used the “inventory” method³¹ to set up two hierarchies. I collected the data from the various censuses at the settlement level. Consequently, two complex databases containing quantified data have been constructed. It was important to create artificial variables which are available in central statistical records both for the inlot and for the whole area of the settlements

However, I must emphasize that for the year in question (1930), we do not have the same quantity and quality of settlement-level data sets as provided by the census in the beginning of the century. Therefore, given the current state of research, more complex internal indicators cannot be included.

The works of József Nemes Nagy³² and Pál Beluszky³³ provided additional data which helped add to the mathematical and statistical basis of my inquiry. Furthermore, concerning the statistical sources, I should mention the central documents that were prepared for public access and are the basis of any research concerning twentieth-century Hungarian town networks or city hierarchies. These documents include the publications of the Hungarian Royal Hungarian Central Statistical Office, the gazetteer for the given years, and the various national economic and demographic data series, which are in many cases available in digital form³⁴ today.

First, I grouped data from Hungary’s gazetteer of 1930, which recorded data for settlements with more than 1,000 residents. According to Beluszky’s research,³⁵ we can talk about urban settlements in functional terms (“functional towns”) above 10,000 inhabitants in the Great Hungarian Plain and over 4,000 inhabitants over the Transdanubia in the 1910s. First, I focused on settlements with populations over 2,000, but later I thought it would be worth expanding the survey with data concerning settlements with smaller populations, considering that the modeling of small towns and near-urban processes can be particularly important in the study of peripheries. Accordingly, I lowered the population threshold so that my research would include more settlements and thus become

31 conf. Beluszky and Győri, *Magyar városhálózat*, conf. Gál Zoltán, “*A magyarországi városhálózat vizsgálata*,” 50–65; conf. Major Jenő, “*A magyar településhálózatról*,” 32–65.

32 Nemes Nagy, *Terek, helyek, régiók*, 51–57.

33 Beluszky and Győri, *Magyar városhálózat*, 93–102.

34 https://library.hungaricana.hu/hu/collection/kozponti_statistikai_hivatal_nepszamlalasi_digitalis_adattar/ Accessed on August 8, 2018.

35 Beluszky and Győri, *Magyar városhálózat*.

broadly representative. With this shift, 1,634 settlements were recorded in the database, which was found to be a sufficient number compared to the total of 3,422 settlements³⁶ (48 percent). Thus, the first step consisted of recording the names of the settlements and their populations.

For the next step, I used the 86th edition of the New Series of Hungarian Statistical Publications, which provided a large amount of data for my research. I recorded the number of inhabitants and the employment structure of the inlot of each settlement using the data from this volume. I also used this volume to record the abovementioned indicators at the administrative level. As I had used the data concerning the main employment groups, it was possible to determine the proportion of non-agricultural earners mathematically. This was important, because along with tertiarization, the proportion of the secondary sector³⁷ was also an important factor in the evolution of a more urban existence. In addition, the use of the significance of surplus services formula has made it possible to establish the “rural part” of services. This method is one of the decisive methodological elements of Beluszky’s “inventory process,” which is based on the fact that the city is a rural provider. Consequently, the central role is based on the “surplus” service provided to the countryside. The aforementioned Walter Christaller also used this method in his research in southern Germany. The popularity of the theory notwithstanding, it is worth mentioning that the method itself may lead to distortions in certain cases, so we have to use it with caution. On the basis of the formula³⁸ of the theory, we can conclude that the population belonging to the settlement is part of the agglomeration, like the area outside the administrative boundaries. Consequently, we must use this method together with methods which consider the population of the settlement or area. If this value is negative for a given settlement (see table), this means that the settlement cannot provide for its own population in the services sector. However, if it is

36 On the capital city, see Hajdú 2005, 150. Cf. Latest 1992, 187.

37 The particular branches included in the Statistical Bulletin have been classified into the basic economic sectors accepted by the reviewed geography following the methodology below. The primary sector contains the primary producers, who were mining and metallurgical workers, while the secondary sector was composed of the industry workers and day-labourers. The tertiary sector was the most extensive, including the workers involved in commerce and credit; transport; civil service and liberal professions; armed forces; house seekers, and, finally, the fourth, the so-called other group, the retired; other and unknown employees. Szilágyi 2012, 111.

38 Significance of surplus services formula (K): $K = F_v - L_v \cdot F_m / L_m$; F_v : the commercial turnover of the studied settlement; F_m : commercial turnover of the studied area; L_v : number of population in the studied settlement; L_m : number of population in the studied area.

positive, it will supply potential users beyond its own population. There was a plan to use a financial indicator, but the construction of the variable failed due to methodological problems. Between the two world wars, during the “fiókosítási program,”³⁹ deposit data concerning “smaller sub-offices” (*alfiókók*) in certain settlements appeared in the central account censuses. This makes it practically impossible to record the settlements’ deposits.

In summary, the two databases contained six variables, three in the inlot and three in the total area database. The average of the variables gave the complex value which determined the hierarchy. Accordingly, the following variables are included in the two databases:

• Inlot population	• Total area population
• Inlot proportion of non-agricultural earners	• Total area proportion of non-agricultural earners
• Inlot significance of surplus services	• Total area significance of surplus services

Since there are different types of variables (population, ratio, etc.), I have unified the variables using a mathematical method. The method used was the formula for normalization,⁴⁰ which prevented the creation of negative numbers and allowed the variables to be unified.

For this time-horizon, according to the present state of the research, we do not have the quantity and quality of inlot data sets to increase the complexity of this study. I could mention the financial indicator as an example. It is also important to note that the so-called total area database is made only for a representative purpose in order to examine the hierarchy of the two areas based on the same methodology and variables. However, this database is not properly complex, as the number of the indicators shows. Nevertheless, in this case, this function is not primary.

Finally, after the creation of the two databases and the two hierarchies, the positions were compared. Thus, I have constructed a brand new hierarchy for the inlot area at settlement-level, for which there was no example in Hungary in former researches. The two hierarchies make it possible to compare the differences and similarities between the inlot and the administrative positions in the period between the two world wars.

39 Several smaller sub-offices which belonged to the central sub-office in the interwar period.

40 Normalization formula: $ni = (xi - xmin) / (xmax - xmin)$; ni: normalized variable; xi: variable of the dataset; xmax: maximum of datas; xmin: minimum of datas.

I would like to emphasize that I have created only one possible context in which to study the inlot area's hierarchy with this methodological model. Understandably, there are as many methodological approaches as there are results.⁴¹

Placing Results in Context

More and more research has been done on this subject, and it has been necessary to isolate the external areas in the urban hierarchy. I am thinking of the work of Lajos Timár⁴² and Zsolt Szilágyi.⁴³ However, the research that was done was only partial, as it only concerned settlements which were cities in legal terms.

In this inquiry, I open a new perspective on the issue, because I have completed the separation of inlot and outskirts on nearly 1,600 municipalities at the settlement level.

According to my *a priori* assumption, the separation of the external area adversely affects the position of these country towns of the Great Hungarian Plain. The results will be explained on two levels: on the one hand per se, and the on the other, the overall ranking of the inlot results. During the investigation, I omitted Budapest, since studies of Budapest in the year in question (1930) have already been done.

As can clearly be seen from the ranking table (Table 2), the internal hierarchy study confirmed the leading position of Debrecen after Budapest between the two world wars. I had arrived at this conclusion in the course of my previous examination as well. One of the concerns about this result was the role/prestige of the inhabitants of the city and the function of the city. The importance of the city grew in 1920, when the city of Oradea was made part of Romania in accordance with the Treaty of Trianon. The regional centers of Miskolc, Győr, Szeged, and Pécs were also included in my comparison.

Territorially, as can be seen on the map (Map 1), the leading settlements cover up the regions of Hungary, so we can say that the contrived hierarchy study in the field is more evenly distributed. The relativity is manifested as long as there is a regional center (Győr) and two county centers (Szombathely and Sopron) in the northwestern part of the country, with a distance of nearly 100 km separating them. But the area between the Danube River and the Tisza

41 Bán, "Magyarország városhierarchia-vizsgálatának módszertani kérdései," 9.

42 Timár, *Az alföldi és dunántúli városok*, 45.

43 Szilágyi, *Város tanya kapcsolata*, 10.

has no regional centers. This may be due to the development of a dynamic agglomeration zone to the west and northwest in response to economic and political developments. This area lies towards Vienna, and it reaches the border of the state. In addition, the city of Sopron got into the top ten settlements in this region (in my urban hierarchy).⁴⁴ Furthermore, the advance of Budapest's agglomeration is observable. In this case, the first twenty settlements included Újpest, Rákospalota, and Budafok. The positions of these cities are also well reflected in the aura of the capital and its outstanding role within the domestic settlement network (Map 1).

I have highlighted ten former country towns from the inlot ranking.⁴⁵ Taking into account the positions of these cities, we can conclude that four of them rank among the first 15. In the case of these five settlements (Debrecen, Szeged, Kecskemét, Szolnok, Nyíregyháza), it is not clear that the unplugging of the external area would have affected them drastically. Using the same methodology, I also made an administrative ("total area") ranking. This makes it possible to reconstruct the differences between the inlot and the total area hierarchies. It is important to mention that a significant position change was observable in the field of the vanguard (top10). Only in the case of two settlements, Debrecen and Szeged, remained the rankings the same (Table 1). Regarding the differences in the two urban hierarchies, the position of the inlot in the ten investigated cities was proven to be stronger, with the exception of Debrecen and Szeged. The conclusion is that in these predominantly agricultural-minded cities, the importance of the external area is insignificant in this time horizon. Moreover, the periphery is significantly weakened by the hierarchy position of former country towns. However, it is also noticeable that the scale of these derogations is highly variable. There are certain country towns with appreciable or moderate position changes (compare it to Kecskemét with 15, Gyula with 51 and Orosháza with 81 position changes etc.). Further anomalies can be observed in the table of rankings (Table 1). In particular, if one compares the first twenty settlements in the two lists of rankings, one observes that the significant increase, can only be detected in the agglomeration of the capital. Comparing the two rankings, I have found that the settlements in the vicinity of Budapest can be described by the increase in their overall area rankings. Yet at the beginning of the twentieth century, Hungarian industry, which was focused in Budapest, was characterized

44 Győri, "Bécs kapujában," 231–51; Tóth, *Tér- és időbeli sajátosságok*.

45 Debrecen, Szeged, Kecskemét, Szolnok, Békéscsaba, Gyula, Hódmezővásárhely, Kiskunfélegyháza, Nyíregyháza, Cegléd.

by a high degree of territorial concentration. At that time, Budapest had emerged as the country's largest economic center, and the growth of the agglomeration was fast paced (Map 1).⁴⁶

Finally, to offer answers to the questions raised in the introduction, it can be stated that the (hierarchical) ranking of an urban settlement is greatly influenced by the data of the peripheral areas (outskirts, farms), and not only in the settlements of the Great Plain. In this study, we can conclude that the periphery is not an integral (functional) part of the settlement. It was found that in all cases when this is possible, data on inlots should be calculated and used in hierarchical investigations in order to avoid distortions caused by different patterns of urban development.

Outlook

Overall, we can conclude that the city hierarchy of Hungary between the two world wars is an extremely complex field of research which creates an interdisciplinary space between historical science and geography. This complexity determines the methodology, though the result of this kind of research is also significantly influenced by the use or exclusion of certain methods. Furthermore, the domestic aspect of the subject itself is diverse and reflects on a number of areas that point in new directions which have not yet been pursued in the secondary literature. I am thinking, for instance, of research into quality of life, for which the necessary data are available, or studies on development, for which the HDI⁴⁷ has to be adjusted. However, in my opinion, it would be more important to involve this indicator at the lower hierarchy levels, as the introduction of this new variable would not be sufficiently desirable for the higher-ranking settlements. The abovementioned methodological problem is difficult to comprehend in a domestic context between the two world wars, but research done according to this method would help further our understanding of a number of economic and social processes in villages.

With regard to the whole database, there are three important aspects missing from the related research. One would be a financial / economic dimension, which would place local interest rates in the center of the study at settlement level. This way, there should be two relevant financial indicators ready for the

46 Győri and Mikle, *A fejlettség területi különbségeinek változása*, 151.

47 Human Development Index, created by the UN.

database. Also, while doing my research, I had the idea of adding data concerning literacy rates to the database, as this kind of data is often used in modernization studies (HDI, for example). However, in this case, it would make more sense to use this indicator at the lower hierarchy levels in my opinion, as the introduction of this new variable would not result in sufficient dispersion-deviation within settlements of higher rank. There is no doubt, however, that it provides a partial solution to the aforementioned methodological problem, and it would facilitate drawing distinctions at lower hierarchy levels.

I believe this study on modernization would be relevant to our understanding of small town and near-small settlements. Additionally, the so-called dispersion (Std. Deviation) value could turn out to be an important tool in determining the “scoring” variables of institutions, lawyers, and doctors.⁴⁸ This would allow us to assign institutions hierarchy levels.

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48 Beluszky, “Adalékok a magyar településhierarchia változásaihoz,” 331.

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Annex

THE INLOT URBAN HIERARCHY OF HUNGARY IN 1930

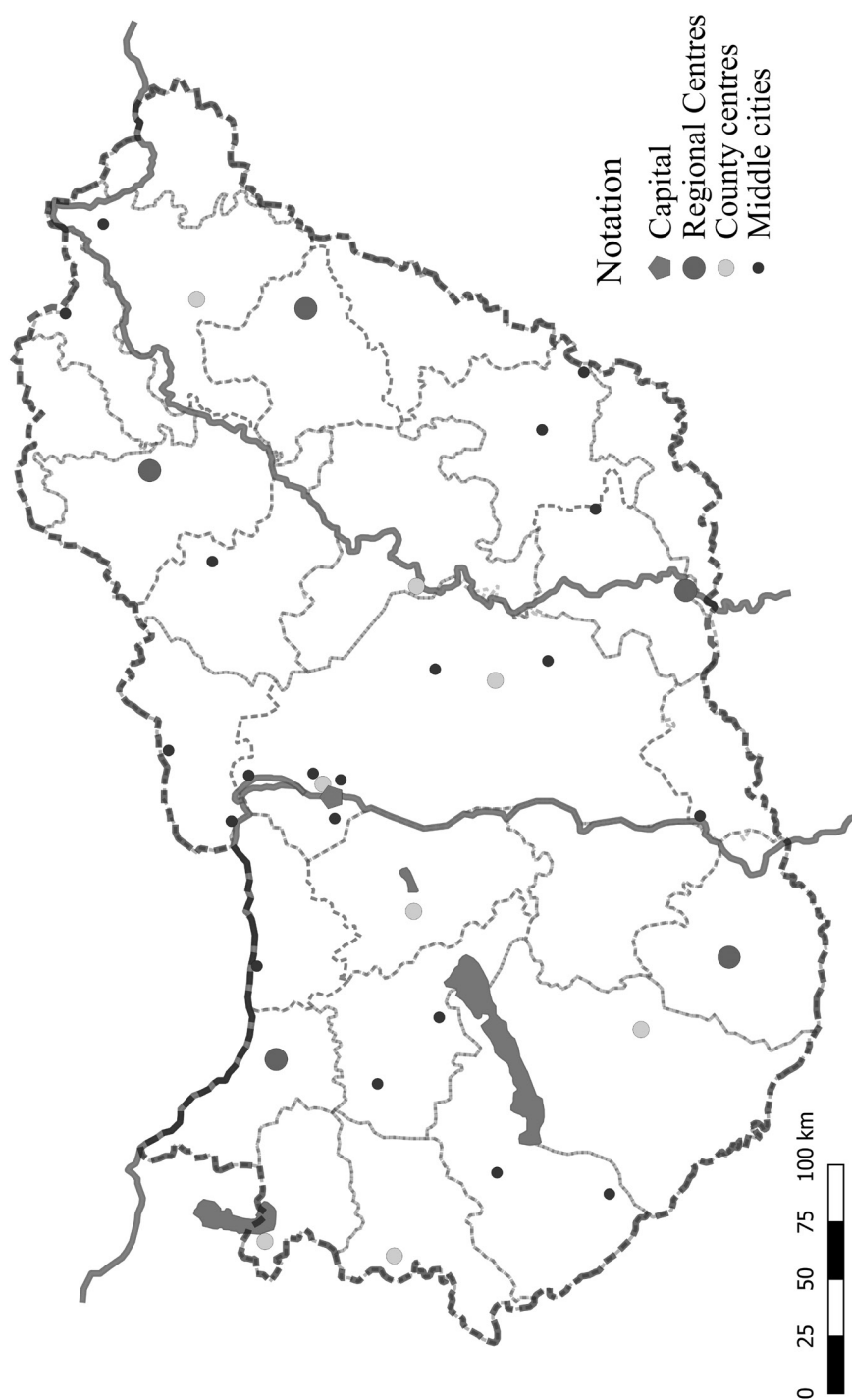


Table 1
Hierarchical rank differences between the two territorial units surveyed in 1930

Ranking (in lot)	Name	1930	Name	Ranking (based on total area)
1	Debrecen	←————→	Debrecen	1
2	Szeged	←.....→	Szeged	2
3	Miskolc	←-----→	Újpest	3
4	Pécs	←-----→	Pesterzsébet	4
5	Győr	←-----→	Kispest	5
6	Nyíregyháza	←-----→	Miskolc	6
7	Szombathely	←-----→	Győr	7
8	Kecskemét	←-----→	Pécs	8
9	Sopron	←-----→	Rákospalota	9
10	Újpest	←-----→	Szombathely	10
11	Szolnok	←-----→	Pestszentlőrinc	11
12	Székesfehérvár	←-----→	Csepel	12
13	Kaposvár	←-----→	Budafok	13
14	Nagykanizsa	←-----→	Sopron	14
15	Rákospalota	←-----→	Székesfehérvár	15
16	Sátoraljaújhely	←-----→	Szolnok	16
17	Békéscsaba	←-----→	Kaposvár	17
18	Veszprém	←-----→	Pestújhely	18
19	Baja	←-----→	Sashalom	19
20	Budafok	←-----→	Nyíregyháza	20

Table 2
The inlot urban hierarchy of Hungary in 1930

Rank	Name of settlement	v1	v2	v3	IUHI
		Internal population (1930)	The proportion of non-agricultural earners in the area (1930) %	Significance of surplus services (person)	Inlot urban hierarchy complex indicator (based on normalized values)
I. REGIONAL CENTRES					
1	Debrecen	66,834	78.85	52127.49	0.587
2	Szeged	89,621	77.13	40851.87	0.526
3	Miskolc	60,032	80.93	35836.29	0.490
4	Pécs	50,019	74.24	28861.28	0.439
5	Győr	49,886	86.83	25664.00	0.432
II. COUNTY CENTRES					
6	Nyíregyháza	31,237	81.51	23837.13	0.410
7	Szombathely	34,945	83.27	23141.97	0.409
8	Kecskemét	34,788	69.43	18681.42	0.368
9	Sopron	32,441	72.39	17908.18	0.366
10	Újpest	66,541	91.96	11769.44	0.360
11	Szolnok	34,050	78.54	15583.35	0.359
12	Székesfehérvár	33,291	73.09	16419.22	0.358
13	Kaposvár	29,845	76.43	14669.71	0.350
III. MIDDLE CITIES					
14	Nagykanizsa	30,389	69.66	12352.06	0.329
15	Rákospalota	42,278	83.56	8734.62	0.325
16	Sátoraljaújhely	17,585	78.89	9652.38	0.318
17	Békéscsaba	37,647	65.53	9696.77	0.312
18	Veszprém	17,792	78.34	8587.06	0.311
19	Baja	25,370	74.99	8569.74	0.310
20	Budafok	19,543	90.58	5341.70	0.305
21	Komárom	6,911	87.72	5968.79	0.301
22	Zalaegerszeg	12,157	76.66	6878.64	0.298
23	Vác	19,361	78.71	6007.52	0.297
24	Pápa	19,774	77.58	5667.48	0.294
25	Balassagyarmat	11,120	74.47	6440.84	0.292

Rank	Name of settlement	v1	v2	v3	IUHI
		Internal population (1930)	The proportion of non-agricultural earners in the area (1930) %	Significance of surplus services (person)	Inlot urban hierarchy complex indicator (based on normalized values)
26	Eger	30,196	57.55	7959.48	0.291
27	Gyula	17,030	68.06	6129.54	0.286
28	Szob	3,394	82.24	4449.25	0.286
29	Kisvárdá	13,304	73.69	4457.07	0.281
30	Kiskunfélegyháza	20,271	64.20	5366.48	0.279
31	Orosháza	14,291	62.01	4987.72	0.278
32	Cegléd	25,521	55.45	5396.34	0.278
IV. SMALL TOWNS					
33	Szentendre	5,418	74.17	3342.72	0.272
34	Keszthely	9,841	70.31	3635.68	0.271
35	Esztergom	15,549	59.12	5141.56	0.271
36	Celldömölk	5,961	74.50	2994.22	0.270
37	Gyöngyös	18,232	54.14	5587.58	0.269
38	Kőszeg	8,075	73.60	2850.33	0.269
39	Salgótarján	15,254	72.39	2621.44	0.269
40	Hatvan	14,333	64.64	3959.48	0.269
41	Kalocsa	11,323	64.71	4050.69	0.268
42	Mátészalka	9,125	70.80	3064.34	0.268
43	Szentes	21,540	60.08	4161.60	0.268
44	Szentgotthárd	3,152	83.23	1123.93	0.267
45	Magyaróvár	7,351	77.45	1819.62	0.267
46	Újdombóvár	2,125	82.50	1163.19	0.266
47	Tóváros	5,012	76.45	1930.32	0.265
48	Nagytétény	4,006	83.44	716.38	0.265
49	Hajmáskér	2,040	74.77	2265.81	0.265
50	Hódmezővásárhely	36,783	53.57	3621.20	0.263

Hungarian urban hierarchy in 1930
(Internal variables to a total area)

Rank	Name of settlement	v1	v2	v3	UHI
		Population (1930)	The proportion of non- agricultural earners in the area (1930) %	Significance of surplus services (person)	Urban hierarchy complex indicator (based on normalized values)
1	Debrecen	117,275	67.84	43891.61	1.640
2	Szeged	135,071	54.15	22044.90	1.591
3	Újpest	67,400	91.84	11495.09	1.497
4	Pesterzsébet	67,907	91.02	12595.49	1.493
5	Kispest	64,512	88.64	17849.12	1.448
6	Miskolc	61,559	80.39	35525.01	1.356
7	Győr	50,881	86.54	25355.36	1.332
8	Pécs	61,663	74.77	28089.62	1.284
9	Rákospalota	42,949	83.39	8560.27	1.217
10	Szombathely	35,758	83.07	23040.50	1.178
11	Pestszentlőrinc	30,611	87.61	8861.56	1.173
12	Csepel	22,901	93.98	-3526.41	1.171
13	Budafok	19,691	90.54	5300.55	1.120
14	Sopron	35,895	73.45	18334.76	1.066
15	Székesfehérvár	40,714	70.33	15931.96	1.064
16	Szolnok	38,764	71.54	14156.68	1.060
17	Kaposvár	32,715	74.36	14169.78	1.047
18	Pestújhely	11,340	89.26	3819.58	1.042
19	Sashalom	11,792	88.09	2573.99	1.031
20	Nyíregyháza	51,308	58.03	17377.52	1.006
21	Albertfalva	3,331	91.12	1327.42	1.000
22	Rákosszentmihály	14,083	83.18	4375.46	0.995
23	Kecskemét	79,467	38.54	2680.42	0.979
24	Nagykanizsa	30,869	69.09	12192.30	0.972
25	Vác	20,960	75.68	5572.05	0.964
26	Veszprém	17,792	77.43	8389.54	0.963
27	Sátoraljaújhely	18,431	76.58	9437.81	0.960
28	Pápa	21,356	75.07	5092.84	0.959
29	Békásmegyer	8,447	83.72	464.11	0.954

Rank	Name of settlement	v1	v2	v3	UHI
		Population (1930)	The proportion of non- agricultural earners in the area (1930) %	Significance of surplus services (person)	Urban hierarchy complex indicator (based on normalized values)
30	Baja	27,935	69.89	7677.48	0.953
31	Komárom	7,562	83.54	5818.30	0.952
32	Nagytétény	7,160	82.07	62.33	0.926
33	Soroksár	14,387	77.32	-848.84	0.925
34	Békéscsaba	49,374	53.05	4798.41	0.920
35	Felsőgöd	3,024	83.87	1080.51	0.916
36	Diósgyőr	20,854	71.95	-1822.17	0.912
37	Rákoshegy	4,198	82.30	1552.36	0.908
38	Salgótarján	16,980	73.45	2353.60	0.905
39	Szob	3,486	81.75	4428.18	0.900
40	Szentgotthárd	3,258	82.13	1098.86	0.899
41	Magyaróvár	8,584	76.70	1514.63	0.878
42	Zalaegerszeg	13,072	72.48	6541.74	0.870
43	Pesthidegkút	6,030	77.70	1237.74	0.870
44	Piszke	1,436	80.82	-101.36	0.869
45	Kámon	2,143	80.00	891.59	0.866
45	Budakeszi	6,099	77.33	480.21	0.865
47	Ózd	7,322	76.24	9.18	0.861
48	Balassagyarmat	11,551	72.56	6291.08	0.860
49	Kisvárd	14,133	70.33	4217.64	0.851
50	Rákospalota	8,189	73.77	1629.64	0.842



Migration and Urbanization in Industrializing Bulgaria 1910–1946

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Urbanization is among the most important demographic phenomena of the modern age. Today, half of the world's population lives in cities, and by 2050 this share is expected to reach 70 percent. Urbanization theorists see this as a consequence of three mutually impacting processes: natural growth (population growth as a result of birth rates exceeding mortality rates), migration (mainly from the villages to cities), and reclassification (the administrative mechanism for giving urban status to former villages or urban settlements) – whose relative contribution to the urbanization process varies depending on the environment.

The processes of urbanization and internal migration in Bulgaria in 1910–1946 have not often been made the subject of rigorous study, perhaps because the scale of urbanization at the time was small and the pace slow compared to the period after World War II. At the same time, however, the first half of this period was characterized by intensive waves of refugees and immigrants (Bulgarians, Russians, and Armenians). Having in mind the lack of attention which this question has been given in the secondary literature, in this paper I examine the urbanization processes in Bulgaria at the time and the role of migration to and within the country in these processes. In particular, I monitor the significance of gender, nationality/“nationalité ethnique” in urbanization in Bulgaria and the roles of smaller and larger cities and the capital, Sofia. I rely heavily on the five censuses carried out between 1910 and 1946, which drew a distinction between local-born and non-indigenous populations, including people who had been born abroad. In other words, the data contain information on native-born people (i.e. born in the locality where they were enumerated or, as one might say “locals”), people who were enumerated in a locality different from their birthplace within the country (i.e. internal migrants, in-migrants), and people who were foreign-born (i.e. external migrants, immigrants).

Concerning the role of migration to and within the country in the urbanization process in Bulgaria, my quantitative analysis shows that urbanization in Bulgaria was influenced by migration (mainly internal migration), partly by the waves of refugees and immigrants during the war and in the interwar period, which accelerated the growth of cities. At the same time, the urbanization of small towns was due primarily to immigration. The trend towards urbanization (albeit at a slow pace) in Bulgaria was a result of the migration of the predominantly ethnic Bulgarian population from villages to cities, but the contribution of Armenian and Russian refugees was also notable.

Keywords: internal and external migration, immigration, in-migration, Bulgaria, urbanization, towns, cities, ethnicity, sex, 1910–1946

Urbanization is among the most important demographic phenomena underway today, when half of the world's population lives in cities¹ and the rapid growth of urban agglomerations which are already huge is being blamed for a number of negative phenomena (high levels of unemployment, infrastructural tensions, and environmental degradation, for instance).² The study of urbanization as a historical process is increasingly pressing, since this process has implications for the present day, given the need to find successful mechanisms with which to address its negative effects.

Urbanization theorists see urbanization as a consequence of migration together and in interaction with natural population growth (which occurs as a result of birth rates exceeding mortality rates) and a process of reclassification (the administrative mechanism for giving urban status to former villages or surrounding settlements), the relative contribution to urbanization of which depends on the economic and social background.³ Migration within the country from rural to urban areas directly contributes to urbanization by causing a decline in rural populations and growth in urban ones. Furthermore, some cities attract significant numbers of immigrants from abroad, which also leads to an increase in the urban population.⁴ A transition to urban lifestyles and settlement patterns is also a consequence of economic modernization, industrialization, and changes in the demographic makeup of the population.

In the period under examination here, Bulgaria experienced relatively rapid demographic growth in spite of the Balkan Wars, First World War, and the accompanying loss of life. This growth was due not simply to a common trend in postwar population growth, but also to the immense inflow of refugees and immigrants⁵ generated by armed conflicts beginning in the second decade of the twentieth century, namely the Balkan Wars and World War I, not to mention the 1917 revolution and civil war in Russia, the Aster Revolution in Hungary, the Greek-Turkish war of 1919–1922, and subsequent events. By 1925, some

1 According to data for 2011. See: UN, 2014b. Accessed on March 2, 2018. <http://onlinelibrary.wiley.com/doi/10.1002/psp.2036/full>

2 Bencivenga and Smith, "Unemployment, Migration and Growth," 582–608; Bilsborrow, "Migration, Population Change and the Rural Environment," 69–94; Kavzoglu, "Determination of Environmental Degradation," 429–438.

3 White, *International Handbook*, 474–75.

4 Найденова, 3–15.

5 In this essay, I use the term "immigrant" to refer to people who came, as immigrants, to the country from abroad. Similarly, the term "emigrant" refers to people who left the country. I use the term "in-migrant" to refer to people who migrated from one settlement to another within the country.

200,000 people had come into Bulgaria as immigrants. Most were of Bulgarian ethnic origin, but there were also 20,000 Russians and 15,000 Armenians among them. The population increased also because of higher birth rates in Bulgaria following the first demographic transition.⁶ The country was rural, and four fifths of its population were peasants. The majority of landowners had relatively small holdings. Bulgaria had an agriculture-centered development strategy, which, however, did not exclude industrialization. Economic modernization happened in agriculture and livestock breeding, which accounted for half of the GDP. The country crossed the threshold of industrialization in the late 1930s.⁷ Between 1926 and 1934, there were 97 rural towns (most of which were small) with populations under 10,000 (Table 2). Sofia saw the highest growth rate. Other rapidly-developing cities included Plovdiv, Varna, Burgas, and Ruse. The proportion of the urban population rose by 5.6 percent between 1910 and 1946. So, concerning the interrelated processes of internal migration, urbanization, and industrialization, there was some development, but it was rather slow, which explains why this development has been seen by some researchers more as stagnation than as any kind of progress.

In this essay, I examine the role of migration in Bulgaria's urbanization during the period preceding accelerated industrialization. At that time, the importance of internal migration and immigration in the numerical growth of urban populations in Bulgaria increased – although immigration including refugees was significantly smaller than in-migration, and it continued more intensively only until 1926 (Table 3). (Here we would like to give a terminological clarification: unlike in our era when the “refugee” and the “immigrant” are separate categories,⁸ in the examined period refugees were usually considered immigrants.) There was a total of 217,328 in-migrants within the country in 1910 and 354,187 in 1926 (figures which greatly exceeded the number of immigrants into the country). So, there were 59,706 immigrants in 1910 and 166,761 in 1926 (their relative share in towns/cities was larger than in the villages). More than one third of the in-migrants and about half of the immigrants were predominantly directed to the big towns and cities, i.e. settlements with populations over 10,000. According to the data, in 1910, 89 percent of the immigrants (53,067 people) and 77 percent

6 Груев, Демографски тенденции, 369–70.

7 Kopsidis, “Was Gerschenkron right?” 9, 17; Lampe and Jackson, *Balkan Economic History*, 576–77; Ivanov, *The Gross Domestic Product of Bulgaria*, 105, 107; Teichova, “Industry,” 239.

8 For details see: The 1951 United Nations Convention Relating to the Status of Refugees. See also: Long, “When refugees stopped being migrants,” 4–26.

of the in-migrants (167,437 people) were encouraged to go to urban settlements, and in 1926, their figures were 80 percent (129,214 people) of immigrants and 77.5 percent (282,079 people) of in-migrants. Until 1926, the general trend was towards increases in the number of immigrants and in-migrants targeting the towns/cities.

Table 1. Number of towns/cities in Bulgaria according to the classification used in the population censuses, 1910–1946

Towns/cities with population	1910	1920	1926	1934	1946
Up to 10,000 people	42	53	53	48	43
Above 10,000 people	28	26	28	33	40
Above 20,000 people	8	9	12	12	17
Above 50,000 people	1	3	3	3	4
Above 100,000 people	1	1	1	1	2
<i>Total</i>	80	92	97	97	106

Earlier Findings, Data Sources, and Methods

Scholars have shown little interest in urbanization in Bulgaria and its interaction with (internal and external) migration processes during the period under examination. This may be the case in part because, at this initial stage (which started with the founding of the Third Bulgarian State in 1878 and ended in the late 1940s), the relative share of the urban population was growing slowly and the urban way of life was spreading slowly.⁹ Faster-paced, dynamic urbanization took place in the second half of the twentieth century. It accelerated under centrally planned economic development, as a result of which urban populations grew sharply. At the end of the 1960s, urban settlements accounted for more than fifty percent of the population, which was increasingly concentrated in the administrative centers.¹⁰

Some researchers on migratory and urbanization processes in Bulgaria have claimed that after 1880 (up to 1934, for example) there was a “progressive urbanization trend.” They have tended to support their theses with indicators such as the steadily increasing number and the growing relative share of the

9 Младенов и Димитров, “Урбанизацията в България,” 13; Минков, *Миграция на населението*, 85; Стефанов, *Демография на България*, 258–59.

10 Василева, *Миграционни процеси в България*, 94; Марчева, “Социални измерения на урбанизацията” 127; Марчева, *Политиката за стопанска модернизация*, 396–97.

urban population.¹¹ Other authors have contended that migration growth (i.e. the difference between the in-migrants and out-migrants, calculated on the basis of population censuses, which are, however, rather “rough” measurements) should be understood as an indicator of urbanization processes in Bulgaria.¹² They have found that migration growth is always to the benefit of towns and cities. It leads to rises in the urban population and drops in rural populations.¹³ In the case of Bulgaria, the phenomenon was reflected by the 1905 census, after the Ilinden-Preobrazhenie Uprising (1903) and, then, in the first half of the 1920s.

Table 2. Migration growth of urban population in Bulgaria, in %¹⁴

	For the urban		For the rural
	population		
	Totev	Stefanov	Stefanov
1901–1905	2.3		
1906–1910	0.8		
1911–1920	13		
1921–1926	16.3		
1927–1934	10.5	9.8	4.2
1935–1946	12.6	14.8	6.7

Some scholars have supposed that the urbanization process was “decreasing” in the interwar period, and they explain this with the impact of territorial changes resulting from the Balkan Wars and World War I on the settlement system and the urban-rural population ratio.¹⁵ According to the Treaty of Bucharest and the Treaty of Neuilly-sur-Seine, eight towns¹⁶ were separated from Bulgaria (from Southern Dobrudja and the Western Outskirts) and transferred to Romania and

11 In 1880 the urban population in the Bulgarian Principality constituted 16.7 percent of the total population of the newly created state; in 1920 – 19.9 percent, and in 1934 – 21.4 percent. See: Василева, *Миграционни процеси в България*, 110; Георгиев, *Освобождението и етнокултурното*, 24; Попов, *Стопанска България*, 13.

12 Тотеv, “Населението на България”, 26–32; Стефанов, *Демография на България*, 218; Даскалов, *Българското общество*, 143.

13 Стефанов, *Демография на България*, 218.

14 Тотеv, *Населението на България*, 26–32; Стефанов, *Демография на България*, 218.

15 Везенков, “Урбанизацията в България,” 56–69.

16 From South Dobrudja – Silistra, Tutrakan, Dobrich, Balchik, Kavarna, and from the Western Outskirts – Bosilegrad, Strumitsa, Tsaribrod (Dimitrovdgrad).

the Kingdom of Serbs, Croats and Slovenes and another 17¹⁷ were added to the country through the newly acquired lands. However, urbanization was declining, because among the latter mentioned settlements, most were less economically developed towns, and their minority Turkish and Muslim populations were prone to emigration.¹⁸

Since the development of urbanization in Bulgaria between 1910 and 1946 has only rarely been made the subject of study and at the same time this period (and especially its first half) was characterized by intensive refugee and immigrant inflows of Bulgarians, Russians, and Armenians and the emigration of the local Greeks and Turks (under the bilateral agreements with Greece and Turkey for population exchange), I have devoted this inquiry to the role of migration in the urbanization process. The quantitative analysis, on the basis of which I have examined the interaction between migration and urbanization phenomena and processes, is itself based on data concerning the urban (and rural) populations in the Bulgarian censuses done in 1910, 1920, 1926, 1934, and 1946. We have turned to this type of source because of the lack of other statistics for the period in question. At that time, only a few countries were collecting statistics which provide an adequate basis for a thorough assessment of urbanization. For this reason indirect methods have commonly been used to calculate the components of the increase in the pace of urbanization based on census data.¹⁹ Often such studies are based on data concerning birthplace, and they apply different research approaches.

In our particular case, we have used the statistical data for the urban (and rural) populations recorded in correlation with the birthplace of the native-born (born in Bulgaria) population (for those born in a settlement other than the place of enumeration, i.e. for the in-migrants) and the foreign-born population (i.e. immigrants). Data for in-migrants provide information about origins within the country (i.e. another district within a given county, another county, or another

17 Ahtopol, Bansko, Gorna Dzhumaja (Blagoevgrad), Nevrokop (Gotse Delchev), Dyovlen (Devin), Daradere (Zlatograd), Ortakoyi (Ivalovgrad), Koshukavak (Krumovgrad), Kardzhali, Malko Tarnovo, Melnik, Mastanli (Momchilgrad), Petrich, Razlog, Mustafa pasha (Svilengrad), Pashmakli (Smolyan) and Vasiliko (Tsarevo).

18 Везенков, “Урбанизацията в България,” 60; Дананлов, *Изследвания върху*, 164–68.

19 The Components of Urban Growth in Developing Countries. Population Division. Department of Economic and Social Affairs. United Nations Secretariat. ESA/P/WP.169. Sept. 21. United Nations, 2001, 58. Accessed on June 26, 2018. [https://population.un.org/wup/Archive/Files/studies/United%20Nations%20\(2001\)%20-%20The%20Components%20of%20Urban%20Growth%20in%20Developing%20Countries.pdf](https://population.un.org/wup/Archive/Files/studies/United%20Nations%20(2001)%20-%20The%20Components%20of%20Urban%20Growth%20in%20Developing%20Countries.pdf)

locality in the country), and data for immigrants reflect origins by countries. This means that the statistical information “covers” the number of in-migrants at a given time point, not counting mortality, and refers only to the first generation of in-migrants (as opposed to the US censuses, for instance, which also collected information concerning geographical family origins for subsequent generations of families). In the case of statistical information concerning people who had been born outside of the country, this information did not in any way address the ways in which immigrants to Bulgaria moved (migrated) within the country after having entered the country. Most immigrants to Bulgaria, however, were very mobile for a time after having entered the country and did not immediately settle down. When trying to establish the contribution of internal migration to urbanization, the most important direction of this migration is from village to town/city. However, from the point of view of the migration and concerning the de facto population, in principle the Bulgarian censuses of 1910, 1920 and 1926 contain information on migration to towns/cities without reference to the settlements of departure (i.e. whether the settlement from which a migrant to a town/city came was a village or another town/city). Thus, this kind of database includes data on inter-town/city migrations too. In this specific case, there were significant patterns of migration from small urban centers to big urban centers. In the Bulgarian censuses there is evidence of population movement from villages to towns/cities only concerning the economically active population and not the total population. Only the 1934 census provides statistical information on migration in the direction of village–town/city. In the 1946 census, a very different methodology was used, which is why this census is practically incomparable with the previous censuses, at least from the perspective of the data they contain concerning the directions of migration.

We have tracked some of the processes for different subperiods (and not for the entire period under examination). This is because we do not have the relevant data due to the different methodologies according to statistical information was aggregated in 1934 and 1946.

We have based our quantitative analysis on some of the more important theoretical frameworks in today’s understanding of urbanization. Our choices of specific indicators were determined by these theoretical frameworks. Nowadays, demographers define urbanization as the growth in the proportion of the population living in urban areas.²⁰ It is worth noting that this is not only a question

20 Poston and Bouvier, *Population and Society*, 307–11.

of proportional growth, because urbanization does not simply mean growth in urban populations. It also comprises growth in the relative share of the urban population. In other words, if urban and rural populations grow at the same pace, this should not be understood as urbanization. Urban population growth is considered to be entirely the result of urbanization if the total population does not change but the relative share of urban population is increasing; then, the degree of urbanization (the degree of population growth in urban areas) is equal to the growth rate of the urban population.²¹ However, in most urbanizing countries, including Bulgaria, during the period in question, the total population was growing, and it is possible to distinguish the proportion of urban population growth resulting from urbanization from the proportion resulting from overall population growth (the latter is roughly equal to the degree of urbanization plus the rate of total population growth).

Using these definitions, in measuring processes and phenomena, we have proceeded from the standpoint that urbanization is present when the urban population growth rate exceeds the rural population growth, and we have used this indicator as the main one, measured as the percentage of the total urban or rural population, for the population of the small and big towns/cities,²² for the capital, and for the separate ethnic groups in Bulgaria. Our intention was to determine the contribution of the small and big towns/cities and the capital to urbanization in Bulgaria and also to consider differences in the makeup of urbanizing populations from the perspectives of sex and ethnicity. The final part of the text is devoted to the interrelationships among migration, urbanization, and industrialization and to some of the changes in the urban space. In order better to corroborate the trends we have identified, we have also monitored other indicators, such as the volume of migration and the number of in-migrants and immigrants-refugees per 1,000 locals. Of course, we are aware of the general nature of quantitative parameters and the presence of certain micro-processes and background processes which cannot be numerically measured, because urbanization is indeed primarily a result of migration, and it is reasonable to treat it as such. However, urbanization is not just a consequence of migration from village to city, especially if this migration is perceived as long-term or permanent resettlement. Firstly, urbanization is the net result of complex migratory movements between rural and urban areas, including circular migration back and

21 Tacoli, C. et al., *World Migration Report 2015*.

22 Until 1926, the censuses used 10,000 inhabitants as the threshold for the distinction between small towns/cities and big towns/cities.

forth. Actually, migration from village to town/city may be a result of people delaying their return or not returning to rural areas as they decide to remain in the city in which they have settled. Secondly, urbanization involves both the net movement of people to and within urban areas, the progressive expansion of urban boundaries, and the creation of new urban centers. As already mentioned, in principle, urbanization can also be accelerated by higher natural population growth in urban areas and particularly high emigration from rural areas, although these factors are not considered very substantial.

Before undertaking the quantitative analysis, we would like to note that during the period in question, there were no legislative restrictions on population crowding in the cities. Administrative measures to limit migration were first introduced for the capital city of Sofia in 1943.

The Contributions of Migration to Urbanization

We start examining the growth of Bulgaria's urban population as a percentage compared to the growth of the rural population, which is influenced by migration (mechanical growth) and natural growth (and perhaps reclassification of settlements).²³ In the period from 1910 to 1946, the population of the country grew from 4 million to 7 million. Both urban and rural populations grew, but the share of the urban population increased from 19.1 percent in 1910 to 24.7 percent in 1946. This was due both to natural growth and to mechanical movement. The change in the proportions of the urban and rural populations was not as sharp as it was in the second half of the twentieth century, but it was smooth. Over the course of 36 years, the urban population more than doubled (+111.4 percent), while the rural population increased only by about half (+58.6 percent), so although the rural population grew in absolute terms, its relative share declined from 80.9 percent in 1910 to 75.3 percent in 1946²⁴ (and this growth in the relative share of the urban population was much greater than that in the years preceding World War I²⁵). The greatest increase in the urban population as a proportion of the total population took place in 1911–1926

23 This indicator was used by the ethnographer G. Georgiev, in his study of the internal migration and urbanization processes in the years after the formation of the Third Bulgarian State. See: Георгиев, *Освобождението и етнокултурното*, 23.

24 Тотев, "Населението на България", 177–79; Цеков, "Селската селищна," 78.

25 In 1880–1900 for instance (i.e. for a period of 20 years), the urban population in Bulgaria increased by 36.6 percent and the rural one by 31.6 percent. See: Георгиев, *Освобождението и етнокултурното*, 23.

(+36 percent), then in 1927–1934 it was +15 percent and in 1935–1946 it was +33 percent.

For the period between 1910 and 1926, statistics indicate a significant difference in population growth in small and big towns/cities, i.e. in the towns/cities with populations up to 10,000 inhabitants on the one hand and over 10,000 inhabitants on the other. Table 3 shows that population growth in the big towns/cities outstripped growth in the small ones, but the determining factor in this process was the enormous growth of the capital city. If Sofia is excluded, population growth in small towns surpassed (albeit not by much) population growth in big towns, and the proportional growth of the urban population in Bulgaria up to 1926 was mainly due to the increase in the population of the capital, which more than doubled.

Table 3. Growth of the population in absolute terms in small and big towns, Sofia, and villages, 1910–1926²⁶

<i>Population in</i>	1910	1926	Growth in		1934	Growth in	
			<i>figures</i>	%		<i>figures</i>	%
Small towns	251,849	321,239	+69.390	+27.5	331,582	+10,343	+3
Big towns/cities, including Sofia	577,678	808,892	+231.214	+40	970,969	+162,077	+20
Big towns/cities, without Sofia	474,866	595,890	+121.024	+25.5	683,874	+87,984	+15
Sofia	102,812	213,002	+110.190	+107	287,095	+74,093	+35
Villages	3,507,991	4,348,610	+840.619	+24	4,775,388	+426,778	+10

We seek in our inquiry to determine the extent to which urbanization was influenced by migration in general (meaning both within the country and across its borders) and, within this, the extent to which it was influenced by in-migration on the one hand and immigration and emigration on the other. We establish the relative share of the increase in the number of in-migrants and immigrants in the towns/cities in relation to the increase in the urban population (for the territory of the country in the respective census year) based on the abovementioned birthplace data. Here, in the context of what has already been said about the specifics of this kind of statistical information on migration to towns/cities,

26 Sources: Общи резултати 1923, 14–17; Общи резултати 1927, 16–23; Общи резултати 1931, 16–23.

we would like to point out again that migration to urban areas includes not only migrants coming from villages but also migrants coming from other towns/cities.²⁷ Inter-town/city migration, and in particular migration from small towns/cities to big towns/cities, was not terribly large and did not affect major trends. In 1911–1926, total urban increase as a share of migration was 81 percent, and in 1927–1934 it was 61 percent. Generally speaking, during the period in question, urbanization in Bulgaria was mainly due to migration, and mainly to internal migration, representing 56 percent of the total migration growth in 1911–1926, despite the intense refugee inflows of Bulgarians, Russians, and Armenians as a consequence of the wars, and almost entirely to internal migration in 1927–1934, when external migration was declining (Table 2).

The 1934 census data, which took into account migration from villages to towns/cities, confirms this conclusion. We have analyzed a variety of data concerning in-migrants who moved from villages to towns/cities and concerning immigrants and refugees who came from foreign countries and settled in towns/cities in Bulgaria, because the mobility of immigrants within Bulgaria is not quantitatively known. There were almost twice as many in-migrants who moved from villages to towns/cities as there were immigrants to Bulgaria who settled in towns/cities. They constituted 64 percent of the people who settled in towns/cities (Table 1).

The rise in the number of in-migrants to towns/cities and the rise in the number of refugees and immigrants to towns/cities (per 1000 local people²⁸) correspond to the abovementioned trends. In 1911–1934, the number of in-migrants who moved from villages to towns/cities was steadily growing, more than doubling and reaching almost half a million. Their number per 1,000 locals was gradually increasing too, in the first half of the 1920s much more significantly (reaching 402 in-migrants per 1,000 locals in 1934). This proportional increase was particularly significant in the first half of the 1920s. By 1934, in-migrants constituted almost one-third of the local population in the towns/cities of Bulgaria.²⁹ The number of refugees and immigrants was one third or one fourth that of in-migrants to urban communities. The number of immigrants was twice to three times smaller than that of the internal migrants, and it was growing to the mid-1920s as a result of refugee flows. These refugee flows stopped,

27 Clearly, in-migration from one city to another does not affect the national rate of urbanization.

28 Population born in the locality where it was enumerated during the census.

29 At the same time, the proportion of in-migrants among the rural population remained unchangeable until 1920 and only increased afterwards.

however, and in 1934 the proportion of foreigners from the population became lower (233 foreign-born per 1,000 locals) (Table 5).

Table 4. Number of in-migrants and immigrants/refugees among urban and rural de facto population, 1910–1934³⁰

	In-migrants		Immigrants/refugees		Local population*		Total	
	among						population of Bulgaria	
	urban	rural	urban	rural	urban	rural	urban	rural
	population							
1910	217,328	468,763	59,706	59,965	551,916	2,977,966	828,950	3,505,794
1920	271,358	489,945	118,185	104,393	576,422	3,284,497	965,965	3,878,835
1926	354,187	635,717	166,761	137,735	609,156	3,575,131	1,130,104	4,348,583
1934	459,296	743,280	159,391	127,186	683,770	3,904,863	1,302,457	4,775,329

* Population born in the locality where it was enumerated during the census.

Table 5. Intensity of in-migrants and immigrants/refugees to the locals* among urban and rural de facto population, in ‰, 1910–1934³¹

	In-migrants		Immigrants/refugees	
	among			
	urban	rural	urban	rural
population				
1910	393.8	157.4	108.2	20.1
1920	470.8	129.8	205.0	31.8
1926	581.4	149.2	273.8	38.5
1934	671.7	190.3	233.1	32.6

* Population born in the locality where it was enumerated during the census.

30 Sources: Общи резултати 1923, 14–17; Общи резултати 1927, 6–23; Общи резултати 1931, 16–23; Преброяване на населението, 3.

31 Sources: Общи резултати 1923, 14–17; Общи резултати 1927, 16–23; Общи резултати 1931, 16–23; Преброяване на населението 3.

The Contributions of Sexes

During the period in question, a common gender characteristic of migration to towns/cities was that the majority of migrants were men,³² as opposed to the period after World War II, when predominantly women set off for urban areas.³³ However, if one examines the data concerning numerical growth of migrants to towns/cities in 1911–1934, it becomes evident that this phenomenon concerned both sexes, but it was higher for women: +91 percent for male in-migrants and +138 percent for female ones, and +131 percent for male immigrants and +228 percent for female ones, bearing in mind that at the same time the number of in-migrants was twice or three times the number of immigrants. In this case, the historical and cultural background played an important role in determining the extent to which women had opportunities to migrate independently of men. The Bulgarian model of economic development at the time, however, also influenced the sex composition of the in-migration flow. Preferring to employ men, the urban occupation structures seem to be the main factor in setting limits for female migration to towns/cities. As we shall see, later the large number of (unmarried) women migrating towards the towns/cities was linked to employment opportunities, especially in the sector of “domestic service.”

The final result was a numerical preponderance of men in the cities in the mid-1920s, where, unlike in the villages, there was the usual demographic phenomenon of women outnumbering men because of longer life expectancies. (Here, however, I would like to note that before the wars, compared to the other countries, Bulgaria was distinguished by predominantly male populations in both cities and villages, and by the mid-1930s, the two sexes had gradually come to constitute roughly half of the population each, Table 6). In order to identify the source of male preponderance in towns/cities, we have used as an indicator the number of females per 1,000 males in the variations of the native-born and foreign-born urban populations. Within the native-born populations, we see the usual situation: women outnumbered men. But in the case of migrants, we find precisely the opposite. At first glance, the related data show a preponderance of men, and men were particularly numerous among refugees and immigrants having in mind that among Bulgarians there was more balance, because they lived predominantly as families. This was also true for the third-largest but still

32 Women mainly headed for villages.

33 Василева, *Миграционни процеси в България*, 110.

a dozen times smaller refugee stream of Armenians. The Russians, second in number but also dozens of times fewer, (being soldiers) were distinguished as a male refugee and immigrant flow. But this contribution of external migrants to urbanization is only seeming, since they were in principle half as many as in-migrants. So, in this case, the men who predominated in the in-migration flow to the cities were the determinants (Table 6).

Table 6. Number of females per 1000 males among urban and rural population in Bulgaria, 1910–1934³⁴

	Urban							Rural
	Locals*	In-migrants	Refugees and immigrants	Total	From the refugees and immigrants			Total
					Bulgarians	Russians	Armenians	
1910	1,062	752	612	935	544		639	973
1926	1,057	880	844	966	890	341	924	1,005
1934	1,014	944	874	971				996

* Population born in the locality where it was counted during the census.

The Contributions of the Ethnicities

The migration towards towns/cities among the native-born population of Bulgarian ethnicity was decisive for the process of urbanization, although the relative share of the urban population within its variation was very low, because being numerically dominant, it had an ascending trend (Table 7). However, we were curious to consider the contributions to urbanization of other ethnic groups recorded in the statistics. In understanding the analysis that follows, it should be taken into consideration that behind the high rates of growth there was a small number of migrants.

By volume, the resettlements in towns/cities prevailed among the indigenous, comparatively small ethnic groups, such as Armenians and Jews, with a tendency to increase between 1910 and 1926. However, they had come into being and existed as urban diasporas. In 1910, 96 percent of local Jews and 88 percent of local Armenians lived in towns/cities. This phenomenon is related to their occupations. Over half (54 percent) of the economically active Armenians were

34 Sources: Общи резултати 1923, 14–17; Общи резултати 1931, 16–19; Преброяване на населението, 3.

employed in industry (mostly in clothing and footwear production), and over half (52 percent) of the economically active Jews were traders (dealing with sales of clothing and footwear, food and beverages, foreign exchange, commissions and exports). Another 36 percent of the latter worked in industry (in the production of either clothing and footwear or beverage). Among the Armenians and Jews, the main direction of in-migration was from small to big towns/cities. They were concentrated in the big towns and cities, where their resettlements (compared to the local Jewish and Armenian population) were distinguished by their high number per 1000 locals, and therefore this movement did not contribute to urbanization understood as the movement of in-migrants from villages to towns/cities. In 1911–1926, among Armenians, quantitatively small in-migration can be observed in the opposite, town/city-to-village direction. The very high number of resettled people per 1000 locals within the Armenian rural population shows that their rural diaspora was at that time a relatively new phenomenon. A similar process can also be observed among the Jews in 1926. Hence, although among the local Armenians and Jews the relative share of resettlements to the towns/cities increased (among the Jews +46 percent and among the Armenians +41 percent) compared to their migration to villages, not they, but the Armenian refugee wave from the first half of the 1920s constituted the most significant contribution to urbanization in Bulgaria with their urban resettlements' impressive growth of +246 percent.

Table 8 shows that among the different ethnic groups it was the rural population that predominated within the set of native-born people, except for the Jews, Armenians and Greeks. According to the 1926 census data for the foreign-born (i.e. the new refugees and immigrants), the Armenians, Bulgarians, Jews, and Russians were mainly targeting towns/cities with an upward trend. The Greek diaspora showed an interesting demographic trend for the period 1911–1926. Among the native-born Greeks, the urban population increased by more than 20 percent, and among the foreign-born Greeks, it decreased by five percent (although it was predominant there) (Table 7); the reason for this was their nearly total exodus³⁵ as a result of the Greek-Bulgarian Convention on Voluntary Population Exchange of 27 November 1919. In 1910, about 91 percent of the total urban Greek diaspora lived in the towns of Kavakli (Topolovgrad), Stanimaka (Asenovgrad), Varna, Sozopol, Burgas, Anhiolo (Pomorie), Mesemvria (Nesebar), and Plovdiv. It is obvious that after the wars,

35 Forty thousand were displaced and only ten thousand remained in Bulgaria.

the local Greek population was increasingly concentrated in the towns/cities, and the displacements themselves took place first among immigrants. In their place, Bulgarian refugees were resettled. The native-born ethnic Turks were distinguished by a small urban diaspora, whereas foreign-born Turks concentrated in cities; in both variations there was a downward trend in migration of ethnic Turks to towns/cities; the drop was perceptibly lower among immigrants. Displacements which intensified during the wars and continued afterwards contributed to this, but they were not the only factor. The Turkish population started leaving towns/cities and resettling in villages, as evidenced by the rise in their numbers as a percentage of the populations in villages (Table 7 and 8). In the case of the Romanians and Tartars, there was a decrease in the urban population (in terms of number and relative share) compared to 1910 for both the native-born and foreign-born, but this was largely due to the cessation of Southern Dobrudja to Romania. Among the minority diasporas in Bulgaria, only the Russians turned from a rural community into urban one. This took place because of the tendency among new Russian refugees and immigrants to settle almost exclusively in the towns/cities. This caused an extraordinary increase in their urban population of +2009 percent (Table 7). Hoping to return to their home country soon, they did not accept Bulgarian citizenship, and so by law they had no right to receive agricultural land (this explains their low share in rural areas), unlike refugees of Bulgarian ethnic origin.

Table 7. Relative share of the urban population in Bulgaria among the different ethnic groups in correlation with native- and foreign-born (i.e. for the old and the new diasporas), de facto population, 1910, 1926³⁶

<i>“nationality/ nationalité ethnique”</i>	Native-born		Foreign-born	
	1910	1926	1910	1926
Armenians	85.8	92.6	90.3	93.0
Bulgarians	17.2	18.5	43.4	50.4
Jews	95.9	97.1	97.5	98.1
Greeks	59.3	79.8	74.5	70.5
Romanians	7.7	0.8	35.1	26.0
Russians	10.8	59.9	42.6	63.3
Tatars	27.7	16.2	63.2	45.5
Turks	15.0	11.9	63.7	42.6
Gypsies	25.4	24.0	26.9	16.7

36 Sources: Общи резултати 1923, 14; Общи резултати 1931, 18.

Table 8. Increase/decrease in the number of in-migrants and immigrants/refugees among the urban and rural population of different ethnic groups in Bulgaria 1910–1926, in %³⁷

“nationality/ nationalité ethnique”	In-migrants		Immigrants	
	rural	urban	rural	urban
	population		population	
Armenians	–46	+41	+151	+246
Bulgarians	+37	+69	+165	+251
Greeks	–72	–55	–48	–136
Jews	–13.5	+46	+8	+41
Romanians	+45	–62	–33	–57
Russians	+451	+429	+1098	+2009
Tatars	–53	–68	–90	–75
Turks	+46.5	+30	+41	+15
Gypsies	+26	+31	+377	+160

The Contribution of the Small and Big Towns/Cities

Before considering the question referred to in the subtitle, we will try to explain the changes in the data concerning the native-born population, which may seem obvious at first glance. These changes are important because they influenced the formation of the indicator of migrants' number per 1,000 locals, and since the analysis of the origin of these changes is a sign of whether it is a source of out-migration or emigration, and because of the dynamics of the urbanization itself. In the period from 1910 to 1926, the number of native-born population in Bulgaria decreased sharply in both small and big towns/cities (excluding Sofia). In small towns/cities, it decreased almost twice as much as it did in big ones (it doubled only in Sofia). It is interesting to see how much this phenomenon was due to migrations. We have tracked it at the settlement level and we have found out that in 1926 in 18 of the 26 big towns and cities the native-born population grew, and in some cases it grew considerably (in Burgas it doubled and in Plovdiv it grew by one third). In the remaining 8 big towns,³⁸ it decreased from several hundred to not more than 1,500. In the case of big towns/cities, three-quarters of the reduction was a result of the secession of the three major towns in Southern Dobrudja after the Balkan wars (Silistra, Tutrakan, and

37 Sources: Общи резултати 1923; Общи резултати 1931.

38 Vratsa, Stanimaka (Assenovgrad), Samokov, Kazanlak, Chirpan, Svishtov, Shumen and Turnovo.

Dobrich). The remaining loss was mainly due to the displacement of the Greeks from Burgas, Varna, Plovdiv, and Stanimaka and to a very small extent, due to mortality and other displacements. In the case of small towns, the decline of the native-born population by half was due to the secession of the five cities with the Treaty of Neuilly (Balchik, Kavarna, Bosilegrad, Tsaribrod, and Strumitsa). It also partly diminished because of the expulsion of the Greeks.³⁹ This loss was not compensated by the 17 towns in the newly acquired territories and the reclassification (i.e. new settlements which were declared towns), probably owing to the in-migration and out-migration from the small to big towns/cities.

The loss of local urban population as a result of the secession of cities (both small and large) and as a result of the territorial losses from the wars was not only simply compensated in the period between 1926 and 1934 by still high birth rates due to intense external and internal migration (the latter of which was significantly larger), but as early as 1934 the pre-war number of the native-born population had been exceeded. That is why we can conclude that the secession of the towns/cities as a result of the wars lost by Bulgaria really had a negative impact on the urbanization of the country, and if that had not happened, the urbanization process would have been much stronger. However, it can not be denied that it was intense and intensifying and quantitatively managed to overcome the loss of the native-born urban population in less than ten years. In this sense, we cannot speak about its stagnation or lagging behind. It simply evolved in the context of changed territorial conditions.

The census statistics make it possible to identify the urbanization centers in Bulgaria, which coincide with the destination points of migration flows. Towns/cities differ in their socio-economic characteristics, so they have different attractive opportunities. In order to estimate them, we consider the cities in the two groups according to the number of their inhabitants (small and big). We have separated the capital of Sofia, which was (and still is) the administrative and cultural center of the country, from the group of other towns/cities, as its growth was unprecedented and incomparable with that of other cities. The data on settlements by groups of towns/cities show that the big towns/cities (except the capital of Sofia) had the greatest influx of in-migrants, refugees and immigrants by absolute number and by the indicator showing total number of in-migrants and immigrants-refugees per 1000 locals. This value in 1910 was twice

39 Among the Greek population in Bulgaria, until the Balkan wars there was relatively low mortality. See Щерионов, “Демографският преход,” 256.

as high as in the case of the small towns. Despite that between 1910 and 1926 the small towns had a much larger growth of migratory influx (both in number and percentage) than the big ones (a tendency which reversed between 1926 and 1934), but they were far behind in terms of migratory flows to the capital. (Table 9) The latter surpassed the influx to both small and big towns/cities not only in their absolute numbers but in their intensity as well: in 1910, in the big towns/cities (except Sofia) the total number of migrants and (in-migrants and immigrants) per 1000 locals was twice as high. Sofia marked the greatest growth. There, the number of migrants was almost twice as much as that of the locals. In 1926, the local population declined in both small and big towns on account of a sharp rise in the number of migrants (almost six times within the external ones and 1.5 times within the internal ones) (Table 9). Small towns strengthened their position of attractiveness, and they caught up with their lagging behind and the number of migrants per 1000 local people almost reached the level of big towns, although the volume of migration to them was smaller. The capital was once again distinct in scale from the other major cities. Migrants in the direction of Sofia were twice as numerous as local residents.

To quantify the role of immigration and in-migration in the urbanization of small and big towns/cities and the capital, we use an indicator that expresses the relative share of the increase in the number of immigrants/refugees and in-migrants in small and big towns/cities and Sofia compared to population growth in them. For the small towns, +44.5% belong to immigrants and +32% to in-migrants; for the big towns/cities +33% and +50% respectively, and for Sofia +21% and +51%. Or, in general, until 1926 Sofia and the big towns were growing predominantly by in-migrants, while small towns were increasing in size because of immigrants (Table 3 and 10).

Now we are going to track the most significant role of migration in the urbanization of separate towns/cities. In 1910, among the cities in Bulgaria, the biggest attraction centers for migration (internal and external), apart from the capital of Sofia, was the administrative center of the Burgas County, to which Bulgarian refugees were directed. (At that time, it was the largest such center in the county, with a population density below the average, and there were quite large reserves of state and municipal land funds.) So, in these two cities (Sofia and Burgas), 63 percent of the population consisted of in-migrants and immigrants/refugees. This figure was followed by Varna with 49 percent, Ruse with 45 percent, Plovdiv with 42 percent, and Shumen 30 percent. In 1926 the main centers of attraction for migration were the same cities but

in a different sequence, and after the large refugee waves of Bulgarians from Thrace, Macedonia, Dobrudja and the Western Outskirts as well as Russians and Armenians, the number and the relative share of the settlers grew. Sofia gave its first place to Burgas, where the majority of the population was migrant (refugees, immigrants, in-migrants from other parts of the country) 87 percent, and ranked second with 68 percent, followed by Plovdiv 56 percent, Varna 55 percent, Ruse 52 percent, Haskovo 47 percent, Sliven 28 percent, Shumen 26 percent. Subsequently, in the second half of the 1920s, the immigration flow decreased considerably, stopping the refugee waves; so, Burgas (65 percent) relinquished to Sofia (68.5 percent) the leading position in the attraction of migrants. The abovementioned towns/cities (not taking into consideration the capital) were traditional industrial and commercial centers, with Ruse, Varna, and Burgas having the greatest ports on the Danube River and the Black Sea, respectively, and Plovdiv enjoying investment of German, French, and Belgian capital and a prospering food industry, Sliven being a center for the textile industry, and Haskovo developing tobacco production and trade; yet a few of them lost population through the expulsion of local Greeks (Burgas, Varna, Plovdiv), which was compensated by in-migrants and immigrants/refugees of Bulgarian ethnicity.

If we distinguish the urban attractiveness centers in relation to the extent of their attraction for the internal and external migration flows, we find that Sofia attracted an increasing percentage of the in-migration flow to towns/cities and the whole immigration flow (1926: 29 percent and 10 percent, respectively, in 1934: 33 percent and 13 percent, respectively). The capital city was followed by Plovdiv, which similarly showed an increase in its relative share in the internal migration to cities (1926: 8 percent and 3 percent, respectively, in 1934: 10 percent and 2 percent, respectively). Then, by a relative share of five to ten per cent compared to the in-migration to towns/cities, come Varna and Ruse in 1910 and 1934 and Shumen and Varna in 1926. Another several towns/cities developed as centers of attraction for refugees and immigrants (based on the indicator of immigrants' relative share in the given city compared to all immigrants in the towns/cities in Bulgaria), with values clearly distinguishable from those of other towns/cities; they were Sofia (1926: 25 percent, 1934: 27.5 percent), followed by Plovdiv (1926: 12 percent, 1934: 19 percent), Varna (1934: 11 percent); refugees accepted into Svilengrad (1926: 6 percent), Burgas (1926: 5.4 percent, 1934: 5 percent), Haskovo (1926: 4 percent); but in the following years, the number of immigrants there was decreasing significantly due to displacement within the country.

In fact, the data shows that the main attraction center for migration was the capital, and the other four major Bulgarian cities of Plovdiv, Varna, Ruse, and Burgas lagged behind it, and only very seldom did migratory flows stand out in the urbanization of small towns. This is understandable considering that the aforementioned cities best suited the standard of living in Bulgaria at the time. Sofia was the most developed city in Bulgaria. It had electricity and good supplies of water. In the 1920s, the Rila water main was built, the construction of sewerage was started, and after the wars, the capital transformed from a predominantly consumer center and a city of clerks and officers into a commercial and industrial center with a large working class. The lack of settlements with truly urban profiles and with high standards of living, including better incomes and living facilities, contributed to Sofia's becoming the most dynamically developing city in Bulgaria. In the second half of the 1930s, the Batova-Varna water pipeline was built, which supplied water to the sea capital. The new ports of Varna and Burgas, put into operation in the very beginning of the twentieth century, contributed to their urban revival.

Table 9. Total number of migrants (in-migrants and immigrants/refuges) and locals* and the number of migrants per 1,000 locals in small and big towns/cities, and in Sofia, 1910–1934⁴⁰

	Towns with up to 10.000 inhabitants			Towns/cities with and above 10.000 inhabitants, without Sofia			Sofia		
	Migrants	Locals*	Intensity	Migrants	Locals*	Intensity	Migrants	Locals*	Intensity
1910	56,530	195,096	289.8	220,504	356,820	618.0	64,993	37,768	1720.9
1926	109,955	144,211	762.5	267,028	328,862	812.0	144,265	68,714	2099.5
+/- in numbers	+53,425	-50,885		+46,524	-27,958		+79,272	+30,946	
+/- %	+94.5	-26		+21	-8		+122	+82	
1934	115,456	215,932	534.7	306,406	377,468	811.7	196,825	90,370	2178.0
+/- in numbers	+5501	+71,721		+39,378	+48,606		+52,560	+21,656	
+/- %	+5	+49.7		+14.7	+14.8		+36.4	+31.5	

* Population born in the locality where it was enumerated in the census.

40 Sources: Общи резултати 1923, 14–17; Общи резултати 1927, 16–23; Общи резултати 1931, 16–23; Преброяване на населението 3.

Table 10. Number of immigrants and in-migrants together in the small and big towns/cities, and in Sofia, de facto population, 1910–1926⁴¹

	Immigrants in			In-migrants		
	Towns with up to 10.000 inhabitants	Towns/cities with and above 10.000 inhabitants, without Sofia	Sofia	Towns with up to 10.000 inhabitants	Towns/cities with and above 10.000 inhabitants, without Sofia	Sofia
1910	6,639	34,608	18,459	49,891	120,903	46,534
1926	37,547	87,357	41,857	72,108	179,671	102,408
+ / – in figures	+30,908	+52,749	+23,398	+22,217	+58,768	+55,874

To What Extent Was Urbanization Through Migration Related to the Modernization of Towns/Cities and to Industrialization?

Unfortunately, the Bulgarian censuses do not contain information about the inter-professional in-migrants' mobility to towns/cities. In order to answer this question, we have used the data that we have on the sectoral structure of the economically active population within in-migrants coming from villages to towns/cities, but only for the population of Bulgarian ethnic origin. This type of statistics on refugees and immigrants of Bulgarian (Table 11) and other ethnic origin (Tables 12, 13) was not published in correlation with villages and towns/cities, and that is why the data are incomparable. We have only used them as a guideline.

The coefficient of economic activity among the in-migrants of Bulgarian ethnic origin (who predetermine the whole structure) in the village-to-town/city direction was higher (1920: 61.7 percent, 1926: 60.2 percent) than the average for the country (54 percent), which indicates that most of them were labor migrants moving in search of a livelihood. The coefficient of economic activity among foreign-born refugees and immigrants was even higher (63.8 percent for 1926). In the professional structure of economically active women who had moved from village to town (Table 12) the sector of “domestic servants” dominated (over 40 percent). The urbanization process means not only village-to-town migration, but also perception of the urban way of life as well. Part

41 Sources: Общи резултати 1923, 14–17; Общи резултати 1927, 16–23; Общи резултати 1931, 16–23.

of the urban lifestyle of the upper stratum in this period included the hiring of domestic servants. Even a regular servant exchange was organized in Sofia. Girls from all over the country, led by parents and dragomans, came to Sveti Kral Square (St. Kral), today's St. Nedelja Square (St. Holy Sunday) every St. George's Day and St. Dimitar's Day in order to seek employment. It is noteworthy that former maidservants were preferred by bachelors as wives, especially among the peasantry, because they were literate and well-informed.⁴² The data in Table 11 show that women hardly left home and farm work, and they very slowly entered the professional work. Female laborers were more likely to be employed in professional work. 18 percent of them were occupied in industry, and only 4 percent in public services and the liberal professions. Those occupied in industry (38 percent) predominated among the male village-to-town in-migrants; again, among them in second place was the sector of "public services and the liberal professions" (31 percent).

However, based on the available data, it can be summarized that in the first half of the 1920s, among in-migrants (both men and women), the number and relative share of those occupied in the industrial sector was growing markedly; in addition, the number of workers in the industrial sector was growing much more rapidly than the number of workers in the agricultural sector. The male in-migrants of Bulgarian ethnicity went predominantly into industry, as did male refugees and immigrants of non-Bulgarian ethnicity, as indirectly can be assumed on the basis of Tables 12 and 13.

42 Даскалов, *Българското общество*, 153–54.

Table 12. Professional structure of the economically active village-to-town in-migrants of Bulgarian ethnicity, de facto population, by sex, in figures and %, 1920–1926⁴³

	1920						1926					
	male	female	total	male	female	total	male	female	total	male	female	total
	%			<i>In figures</i>			%			<i>In figures</i>		
Agriculture and live stockbreeding, hunting and fishing	14.8	35.5	19.5	10,131	7,105	17,236	12.7	35.6	18.6	11,364	11,099	22,463
Industry incl. mining, crafts and communications	28.7	11.0	24.7	19,589	2,198	21,787	38.0	17.7	32.8	34,164	5,510	39,674
Trade	11.6	1.4	9.3	7905	288	8,193	13.3	1.6	10.3	11,935	484	12,419
Public services and liberal professions	42.8	5.0	34.2	29,213	1,003	30,216	31.0	4.3	24.1	27,861	1,340	29,201
Domestic servants	0.5	46.8	11.0	310	9,364	9,674	0.4	40.7	10.8	382	12,693	13,075
Undetermined	1.6	0.3	1.3	1114	46	1,160	4.6	0.1	4.7	4,116	34	4,150
Total	100.0	100.0	100.0	68,262	20,004	88,266	100.0	100.0	100.0	89,822	31,160	120,982

Table 13. Professional structure of the economically active urban immigrants and refugees of non-Bulgarian ethnicity, de facto population, by sex, in figures and %, 1926⁴⁴

	male	female	total	male	female	total
	%			<i>In figures</i>		
Agriculture and live stockbreeding, hunting and fishing	15.7	50.7	21.8	5,434	3,718	9,152
Industry incl. mining, crafts and communications	49.8	27.7	45.9	17,203	2,032	19,235
Trade	15.5	4.9	13.6	5,349	359	5,708
Public services and liberal professions	8.8	11.4	9.3	3,042	838	3,880
Domestic servants	0.7	5.2	1.5	231	383	614
Undetermined	9.5	0.1	7.9	3,280	10	3,290
Total	100.0	100.0	100.0	34,539	7,340	41,879

43 Sources: Общи резултати 1926, 4–5; Общи резултати 1932, 4–7.

44 Ibid.

Table 14. Professional structure of the economically active refugees and immigrants of Bulgarian ethnicity, de facto population, by sex, in figures and %, 1926⁴⁵

	male	female	total	male	female	total
	%			<i>In figures</i>		
Agriculture and live stockbreeding, hunting and fishing	48.4	84.9	61.1	48,178	45,240	93,918
Industry incl. mining, crafts and communications	28.6	10.1	22.1	28,425	5,401	33,826
Trade	8.3	0.8	5.7	8,315	332	8,647
Public services and liberal professions	7.7	2.7	6.0	7,651	1,437	9,088
Domestic servants	0.2	1.5	0.7	178	820	998
Undetermined	6.8	0.0	4.4	6,764	23	6,787
Total	100.0	100.0	100.0	99,511	53,253	152,764

Urbanization is also reflected in the creation of new structures in the organization of urban space. In fact, its main sign was the change in the economic structures of the urban space. By the Mid-twentieth century, a general characteristic of the Bulgarian towns/cities, including the big ones and the capital, was their rural appearance, resulting from the presence of large sectors with a high agricultural character. In order to establish the changes, we have compared the occupational structure of the economically active population of Bulgarian ethnicity in the towns/cities (locals and inter-town/city migrants, according to the correlation of “born in towns/cities and counted as residents in the census” of Bulgarian ethnicity) with the occupational structure of the village-to-town/city in-migrants of Bulgarian ethnicity (Table 10) during the first half of the twentieth century. In the occupational structure of the economically active Bulgarian-born population which was counted as urban residents in 1920 and 1926, a slight decrease from 30.7 percent to 29.8 percent is visible in the relative share of those employed in agriculture as well as a rise from 35.4 percent to 36.2 percent among those employed in industry. Economically active in-migrants of Bulgarian ethnicity headed from the villages to the towns/cities to work mainly in the industry, where their share increased considerably (from 24.7 percent to 32.8 percent) in the first half of the 1920s. (Table 12) Among them, for this relatively short period, the relative share of the people occupied in agriculture and livestock breeding decreased from 19.5 percent to 18.6 percent. Thus, by

45 Source: Общи резултати 1932, 4–7.

comparing the changes in the professional structure of the two variations of the predominant economically active population of Bulgarian ethnicity, we have found that the decline in the importance of the agricultural sector was minimal and had the same values (–0.9 percent) for both variations. Within the structure of the village-to-town in-migrants, the share of industrial sector increased by 8 percent. This means that the locals and the new residents were giving up just as little of their agricultural occupations in order to engage in some kind of urban one. And the “strengthening” of industrial production in the urban economy was definitely due to in-migration and was the result of a shift among the new citizens to industrial activities.

Conclusion

We can summarize the results of the quantitative analysis of the birthplaces of Bulgaria’s population from the perspective of the role of internal and external migration (i.e. in-migration and immigration) in the processes of urbanization as follows:

Urbanization in Bulgaria in the period in question was mainly due to migration and in particular to in-migration, although it was undoubtedly closely related to the refugee wave and immigration during the war and in the interwar period, which strengthened the expansion of the towns and cities. The drying-up of the refugee inflow did not lead to a decline in the urbanization process. On the contrary, there was intensified internal migration towards the towns and cities and specifically in the direction from village to town/city. This was a characteristic phenomenon for other countries as well. Similar phenomena were observed in the United States in the first decades of the twentieth century, but in relation to the strengthening of restrictions on immigration.

In the first half of the 1920s, many people (predominantly men) left the villages and began to engage in non-agricultural activities in the towns and cities. But an initial process of feminization of in-migration towards the towns/cities as well as of the industrial labor force was evident too.

There was a relationship between emigration, on the one hand, and internal migration and immigration on the other, which is well illustrated by the replacement of the displaced Greek population with Bulgarian refugees and in-migrants.

The decisive role of in-migration in the urbanization process in Bulgaria was determined by in-migration to the big towns and cities (including Sofia).

This was because the urbanization of big towns/cities (understood as urban population growth) quantitatively exceeded the urbanization of small ones, and it was largely determined by inter-urban migration from small to big towns.

At the same time, the urbanization of small Bulgarian towns was primarily driven by immigration.

The trend of ascending development (albeit at a slow pace) of the urbanization process in Bulgaria was mainly due to in-migration from village to town/city of the predominantly Bulgarian ethnic population, but the contribution of Armenian and Russian refugees was also quantitatively visible.

The main destinations for immigrants, with values clearly distinguishable from those of other towns/cities, was Sofia. It attracted an increasing percentage of the in-migrant flow towards the towns and of the whole set of internal migrants. Sofia was followed by the second largest city in Bulgaria, Plovdiv, but the numbers in the case of Plovdiv were much smaller.

The urbanization of the capital Sofia, which was growing to the size of a super city (certainly with regard to the living and working conditions in Bulgaria), stood out from the perspective of its scale, even against the background of the so-called big towns and cities.

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BOOK REVIEWS

Conflict, Bargaining and Kinship Networks in Medieval Eastern Europe.
By Christian Raffensperger. New York–London: Lanham–Boulder, 2018.
223 pp.

Christian Raffensperger, a scholar who deals with the history of Kievan Rus', is the author of several important monographs. Of these, *Reimagining Europe: Kievan Rus' and the Medieval World (988–1146)* [2012] was met with considerable attention and, for the most part, was quite favorably received. Building on his earlier research, Raffensperger continues in his new book to deal with the eleventh century and the first half of the twelfth century. To some extent, however, the book diverges from his earlier work, as it offers a more comparative framework. The introduction (pp.1–12), which lays the theoretical groundwork, is followed by six chapters. The book also includes one map, 15 illustrations (sections of family trees), and 14 tables.

As noted above, the introduction provides the theoretical framework. One of Raffensperger's essential goals is to avoid using terms which are not appropriate to medieval thinking but which nonetheless are often found in the secondary literature. These terms include, for instance, "state" and "nation." He also seeks to avoid projecting modern state frameworks onto the past. As an example of the latter, Raffensperger mentions the imprecise use of the term "Medieval Russia" instead of Rus'. Raffensperger is undoubtedly right to insist on the precise use of terminology, but this problem is perhaps less of an issue in the more recent secondary literature than it might have been in the past, and Raffensperger offers no concrete examples of imprecise use. The notion that familial networks do not constitute political borders is also not a remarkably new insight. This question has been discussed several times in the context of dynastic ties. What might be worthy of further study is the family networks of the elites who surrounded the ruler. Regarding the spatial and temporal framework of the inquiry, Raffensperger enters into a debate with Nora Berend, Przemysław Urbańczyk, and Przemysław Wiszewski (the authors of *Central Europe in the High Middle Ages*) and Florin Curta. In the case of the first, he objects to the use of the term Central Europe, and in the case of Curta, he objects to the use of the term East Central Europe. Instead, he suggests simply using the term Eastern Europe to refer to the whole region. In my assessment, this is regrettable. Raffensperger fails to see important

differences within the region, differences which existed even if they are difficult (though not impossible) to discern in dynastic relationships. "One goal of this work," he explains, "is to demonstrate that the same ideas about kinship, identity, and conflict that are widely discussed, or already assumed, for western Europe, are also true for eastern Europe." (p.3.) This statement demands substantiation. The temporal framework of the monograph is the beginning of the eleventh century and the middle of the twelfth. Raffensperger explains this decision with the observation that by the end of the tenth century, the entire region had become Christian. This is true, but there were significant differences within the region as it embarked down the path from the ritual of baptism to the embrace of the Christian mentality. One might think, for instance, of the development of the institution of the Church or the emergence of cults of saints. Raffensperger chose the middle of the twelfth century as the moment at which to conclude his inquiry because it was then that Poland and Rus' were both disunited. This very observation calls into question Raffensperger's earlier contention according to which the entire region of "Eastern Europe" can be treated as a unified bloc of sorts. In the case of Poland and Rus', he identifies a "change in the political centralization of the polity." In the case of the territory of Poland, this is correct. In the case of Hungary, it is not. In the case of Rus', the mid-twelfth century was not the temporal border.

Raffensperger offers the following definitions of the terms family, clan, and kin: "With clan defined as the larger unit, family, without the adjective royal, can then be used for smaller groupings of kin comprising nuclear families"; "families could die out or grow into the clans of their own" (p.6); "In addition to family and clan, this work often discusses kin, kindreds, and kinship webs" (p.6). The introduction contains a subchapter entitled "Overview of chapters," which gives the reader a short description of the individual chapters. The first chapter addresses the meaning of the term "conflict" in terms of its relevance to all of Europe: "'conflict' more than 'feud' or 'civil war' accurately expresses the range of activities, actions, and responses that occur in medieval sources" (p.7). In the second chapter, Raffensperger examines the development of the relationships between Vladimir's descendants from the perspective of his contention that "conflict is a means of bargaining within the larger hierarchy" (p.7). The third chapter examines conflicts within the Rus'. The fourth, fifth, and sixth chapters consist of case studies.

The first chapter, entitled "The Nature of Conflict," addresses questions concerning terminology like "civil war" and "feud." The source in every instance

is *Povest'vremannykh let* (PVL). The second chapter (“Conflict as Bargaining”) examines conflicts which arose in Kievan Rus’ among Vladimir’s descendants. As Raffensperger notes in his introduction, there is “a growing consensus for the understanding that conflict within the Volodimerovichi was a way of bargaining for a better position, political, territorial, or otherwise” (p.7). According to Simon Franklin, one basic question concerns the lack of regulation of Kiev’s rule. With regards to this, Raffensperger identifies two distinct groups: the “main line” and the circle which fell from power (*izgoi*). One of the types of conflicts concerned the acceptance of precedence or the struggle to avoid ending up excluded from power. The other concerned rivalries within the group identified by Raffensperger as the “main line.” Raffensperger again relies on the PVL as his source. The third chapter, entitled “Everyone Goes Home Alone,” focuses on the conflicts surrounding succession to the throne in 1015–1110 and again is based on the PVL. Raffensperger presents the data concerning the individuals involved in a table. Of the 14 tables in the book, nine are found in this chapter. This indicates that Raffensperger thoroughly studied the source.

In the fourth chapter, “The Kinship Web in Theory and Practice,” Raffensperger puts his discussion within a larger context, and he refers to Byzantine, Polish, and Hungarian examples. With a focus on the 1140s, he sketches partial family trees through marital ties to the neighboring ruling dynasties. Half of the illustrations of family trees were made for this chapter. In his assembly of the web of family relationships (which is based on the ascertainments of G. Althoff), Raffensperger gives an important role to the female branch of the family network and the ties between mothers and wives. He notes three emblematic examples: the relationship between Wladyslaw II and Boleslaw IV, the events which took place in Galich (Halych) in 1144, and the figures of the battles which took place around Kiev in 1146. In the case of the latter two, members of the Hungarian royal family are also mentioned. Raffensperger is careful to avoid using the expression dynasty, but he also avoids using the names Piast (the Polish Piast dynasty) and Rurik (the ruling dynasty of Kievan Rus after 882). Instead, he uses the names “Mieszkowice” and “Volodimerovichi,” which refer to the princes who embraced Christianity, for the families. When referring to the Árpád family, he uses “Árpáds,” which is not ideal since this name was not in use at all in the Middle Ages. True, had he sought other solutions, he would have found himself confronted with the difference expressed by the phrase “Kindred of the Holy Kings.” Since in the case of the “Mieszkowice” and “Vladimirovichi” there is no similar concept, it would immediately have

become apparent that the use of the single term “Eastern Europe” to refer to the entire region is misleading.

In the fifth chapter (“Iaroslav Sviatopolchich’s Kinship Web in Action”), the focus again switches back to the study of Rus’ on the basis of the PVL, which Raffensperger knows thoroughly. The sixth chapter (“Géza II in the Center of a European Kinship Web”) deals very specifically with the kinship ties of the Hungarian ruling family. The choice of this particular period is clearly not merely matter of happenstance. Several scholars have already thoroughly mapped the European political scene of the mid-twelfth century. Raffensperger has made use of the works of Ferenc Makk, but neither Ostrogorsky nor Vasilievsky is mentioned in the bibliography, though as scholars of Byzantine history they were the first to study the network of relationships.

In general, given the complexity of the topic he has tackled, Raffensperger has made use of only a narrow slice of the secondary literature. Regarding the general precepts, he has failed to consult decisive works by authors like Johannes Fried and Christian Lübke or the Polish scholars Andrzej Poppe, Bronisław Włodarski, and Dariusz Dąbrowski. There are only a few references to works by Hungarian scholars, though Raffensperger devotes a significant section of his book to figures prominent in Hungary history. One of the basic problems is that for the most part Raffensperger relies on works which were published in English, including in the case of primary sources. Of the 34 primary sources mentioned in the bibliography, only eight are in the original languages (23.4%). Of the 122 secondary literature sources listed, only 19 are in languages other than English (15%). The works by Nora Berend, Przemysław Urbańczyk, and Przemysław Wiszewski would have been indispensable to this study. In the case of Hungarian history, Raffensperger does not even use the scholarship available in English, for instance the books by Zoltán J. Kosztolnyik and the many works I myself have written on the subject, which would have been directly pertinent to Raffensperger’s narrative (for instance *Coloman the Learned, King of Hungary* [2001]; “Emperor Manuel Comnenos and the Hungarian Kingdom,” in *Byzantina et Slavica Cracoviensia V* [2007]; and in German *Im Spannungsfeld der christlichen Grossmächte* [2008]). Raffensperger does not seem to realize that Mór Wertner’s genealogy contains contentions which have since been refuted. For instance, the date that Wertner gives for the death of King Coloman’s first wife is incorrect, as is the name (Makk has corrected these mistakes). Raffensperger sometimes draws on Makk’s work and gives the correct date of Coloman’s death, 1116 (p.138), but sometimes he gives the incorrect date, 1114 (p.170).

According to Wertner, her name was “Busilla,” but we now know that in the local dialect, this word was not a proper name. It was a noun which meant “virgin girl.” Raffensperger’s narrative contains numerous mistakes with regards to Hungarian history. Beloš, for instance, did not declare himself palatine (and *banus*), as Raffensperger contends (drawing on Fine’s work, which is hardly the most recent on the subject; p.133, footnote 41). Beloš rose to an important role under Béla II, and presumably he also served as palatine at this time, even if we do not know the precise date when he was named to this position. Raffensperger also espouses the view of the outdated secondary literature according to which the wife of Volodimerko of Galich (Halych) was a relative of Béla II, of which there is no evidence.

In summary, if Christian Raffensperger’s goal was, as he himself states, “to present a new way of looking at eastern European political history, through the lens of conflict among and between kin” (p.6), then he has succeeded in part. The chapters which are based on his earlier research and which deal with the Kievan Rus’ (and in particular the chapters which are based on the PVL as their major source) are the strongest sections of this work. Raffensperger’s handling of sources in other chapters does not reach the same depth, and it is worth noting that he does not cite the Kievan Chronicle with adequate precision. He notes only the dates, but does not give page numbers or column numbers. He unquestionably merits praise for having presented the important role of the women’s branches of families in family relationships and the hierarchical nature of the family network. The subject nonetheless deserves more thorough treatment.

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Die Textilien des Hanseraums: Produktion und Distribution einer spätmittelalterlichen Fernhandelsware. By Angela Huang. Cologne–Weimar–Vienna: Böhlau, 2015. 311 pp.

The present book has been waiting in the wings for a long since the publication of the first samples of the author's research in *Hansische Geschichtsblätter* (with Ulla Kypta: Ein neues Haus auf altem Fundament: Neue Trends in der Hanseforschung und die Nutzbarkeit der Rezessionen [2011]; with Carsten Jahnke: Bermudadreieck Nordsee: Drei Hamburger Schiffe auf dem Weg nach London [2012]; Hanseatic Textile Production in 15th century Long Distance Trade, in *Textiles and the Medieval Economy* [2015]). The book is a slightly modified version of Angela Huang's PhD Thesis, which she defended at the University of Copenhagen in 2013. It builds first and foremost on a study of the London Custom documents compiled between 1384 and 1503. The core of the research consists of two types of custom lists containing detailed information on various textile fabrics imported to London: the "*Tunnage & Poundage*" and the "*Petty Custom*" files. Huang also carried out exhaustive archival research in Lübeck, Osnabrück, Braunschweig, Hannover, and Salzwedel, and her narrative offers a vivid and very engaging overview of the subject.

The importance of the work lies in two essential features. One is the focus on the cheaper textiles, primarily the textiles from Northern German regions (e.g. Westphalia, Prussia). The novelty of this approach is that earlier studies concentrated predominantly on the more expensive and thus better-documented fabrics, namely Flemish and English cloth. The other innovation is that Huang was able to identify and draw important distinctions among particular Westphalian and Saxon textile production cities and their considerable role in the Hanseatic economy.

The significant place of Western German cloth production in the European textile industry has been well known and widely accepted in earlier studies, but the presence of a highly differentiated, regulated, and controlled linen industry in the same region with strong exports to London is something that has been less obvious. Perhaps only the high-quality Cologne linens were in sufficiently widespread use to have been identified and studied in the secondary literature. According to the source material on which Huang draws, the textiles from Münster, Osnabrück, Herford, and Göttingen were transported via Cologne and sold in London, whereas textiles from Salzwedel, Hannover, and Braunschweig

made it first via Lüneburg to Hamburg and then were shipped to London, probably via Amsterdam or Middelburg.

Another part of the book deals with the trade in the woollen cloth of the Hanseatic League, predominantly from Prussia and Saxony. Although these regions primarily produced cheaper and lower-quality fabrics, the Hansa-network enabled them to distribute them on a wider scale in various parts of Europe. Their simultaneous presence with the cloth fabrics from the Low Countries and England made it possible for Huang to compare their values and changes in prices over the decades.

From the Hungarian point of view, the relevance of this book is not so self-evident. Most of the Hungarian sources regarding medieval textile imports have been thoroughly evaluated and were published in the last century by György Székely and Walter Endrei, with only slight additions made by Slovak and Romanian historians. Hungarian historians did not continue to focus on this topic, however, and they have only recently begun discovering and studying new types of sources, which provide a great deal of unexpected data which have changed their attitudes. A new prompting in this research in Hungary was given by the appearance of new data, like cloth seals and the publication of archival materials, similar to Huang's book.

The recent development of research currently underway in Hungary concerning the local textile trade (predominantly imports) has led to increased interest in the history of the textile trade in Central and Eastern European regions overall, especially regarding contacts with the medieval Kingdom of Hungary. For Hungarian scholars, Angela Huang's volume provides several useful pieces of information. Perhaps the most significant collection of data is compiled in the almost thirty tables in the appendices of the book. These data concern the prices of particular fabrics from specified production centers in different periods. Some of the fabrics were definitely traded in medieval Hungary too, and thus their sales and value can be compared. This concerns primarily cities like Cologne and Ulm, but several towns in the Low Countries (Tournai, Arras, and Ypres) are also of particular interest for Hungarian scholarship. Similarly, the terminology and detailed descriptions of the fabrics, which are based on the contemporary sources and preserved textile samples, are of exceptional importance to the interpretation (or reevaluation) of the Late Medieval Hungarian written sources.

Huang's book is a well-structured volume with a rich bibliography, and it will be useful as a foundation for further research. The book also has a 15-page long index, which includes geographical and personal names and also different

fabrics (e.g. *boykott*, *leinnwand*, *kanfas*, *wolltuch*). This monograph is a very important contribution to a worldwide history of textile production and trade, useful for scholars dealing with this branch of economic history.

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Utcák, szavak, emberek: A városi tér és használata Párizsban a középkor és a kora újkor határán [Streets, words, people: The urban space and its use in Paris at the boundary of the Middle Ages and the Early Modern period].

By Veronika Novák. Budapest: ELTE Eötvös Kiadó, 2018. 256 pp.

Paris, as the classic example of a medieval metropolis, has attracted the attention of historians not only in the France but also in Central Europe. Bronisław Geremek's study on the people on the social margins of medieval Paris, for instance, offers a clear example of this fascination. Veronika Novák, the author of the book under review, also studied medieval Paris at the beginning of her academic career. Inspired in part by Ilona Sz. Jónás, who dedicated much of her work to medieval Paris (focusing mostly on the merchants and laborers in the city), in the late 1990s, Novák studied the social history of late medieval Paris. She wrote her dissertation on the spread of news in late medieval Paris (published in Hungarian *Hírek – hatalom – társadalom: Információáramlás Párizsban a középkor végén* [News – power – society. Information spread in Paris at the end of the Middle Ages], published in 2007). The ways news circulated among Parisians had important spatial aspects. Hence, to a large extent her new book can be regarded as a continuation of the previous work.

When thinking of representing the space of a town in the twenty-first century, most people probably think of maps, either printed or, more and more frequently, digital. When getting from A to B, people increasingly rely on cell phones and their GPS applications. When working with these tools, the representation of space may seem rather objective. However, space as used by people is not objective, and, moreover, it is not the same for the different actors who use it. The way we walk around in a city changes our own ideas of its spaces, and this was true in earlier times too. Novák's book looks at the ways the different constituents of medieval Parisian society used and thought about the space of the town.

The book offers a theoretical introduction and a discussion of the source material used and then moves into a discussion of the various aspects of the medieval and Early Modern practices of the space in Paris in three main parts, which form the three main chapters of the work. The first and longest part looks at the ways in which the urban space of Paris was divided into parts from different perspectives in the fifteenth–seventeenth centuries. The second, probably most consistent part looks at the spaces of power, i.e., how the different

actors in power, both lay and ecclesiastic, used the streets of Paris. The third part discusses everyday practices of using the urban space of the city. In dealing with the different aspects of the use of space, Novák uses many kinds of sources, both archival and printed. The most important sources include chronicles, diaries, and sources rather specific to some towns or regions of Europe, such as street lists or letters of pardon. The ways in which Novák uses the latter group of source in dealing with the ways space was used by the people of Paris are probably the most innovative elements of the book.

The first main chapter of the book (pp.46–138) looks at the ways in which the actors in the city created their own understandings of its space and their own vocabularies which they used in explanations of the streets, neighborhoods, quarters, etc. Of the number of case studies, the subchapter that deals with the assassination of Louis I, Duke of Orléans and younger brother of King Charles VI, in the streets of Paris in 1407 is indicative of the way in which space was conceived by the people of Paris. The details of the act as we know it on the basis of the interrogations of witnesses analyzed by Novák clearly demonstrate the extent to which a point in space, such the crossroads where the murder took place, can be perceived differently by the different people involved. This is one of the most enjoyable parts of the book. The crime scene is explained in detail, like in a crime story. The whole chapter convincingly demonstrates that none of the notions used by modern scholarship to explain towns or their parts are rigid or self-evident categories. They are flexible for the people of late medieval and early modern Paris and change not only over time but also according to the different needs and preferences of the actors.

This second conclusion leads to the next part (pp.139–95), which deals with the use of space in practicing and representing power. The three events discussed are processions, proclamations of royal laws and decrees, and executions. This is the section in which, as noted above, the case studies are the most systematically tied together and the temporal scope of the book most clearly shows its benefits. In the case of each of these events, systematic and important changes took place with the Reformation on the one hand and the change in the nature of royal power on the other. This all led to a transformation of the spaces used in processions and, more importantly, to a shift in the way in which royal power was demonstrated with the proclamation of laws and the holding of public executions.

The third (and shortest) chapter of the book (pp.196–221) touches upon two related aspects of everyday life in Paris, crime and nights, of course again with

a focus on their spatial aspects. The title of this chapter is slightly misleading, as the main source on which it is based, royal letters of pardon, can be used effectively as the foundation for a discussion of the ways in which criminals used Paris (as the book demonstrates), but they shed little light on dozens of other aspects of the spatial practices in everyday life. Nonetheless, the chapter clearly argues how space was experienced differently by someone migrating to work, someone going out to have fun, or someone committing a crime.

All in all, Novák's book constitutes a valuable contribution to our understanding of the social history of medieval Paris. The vocabulary is consistent and easily understandable, which makes the book an enjoyable read even for non-specialists. When reading the book, one has the feeling that the author (unlike many of the contemporary citizens of Paris at the time) would have been able to navigate the crowded streets of medieval Paris easily. This is not such a simple task for the reader at times, however, so here and there, more detailed maps could have added to the reasoning in the different sections, and even the maps which were included are sometimes difficult to understand. As it was written in Hungarian, for the moment, the book is available only to a very small group of scholars interested in the social history of medieval Paris. However, it could also be read as a handbook which offers a methodology to the study of medieval and early modern practices of space. The book makes note of a number of Central European parallels in the use of urban spaces, which scholars of the region hopefully will study in further detail. Even if scholars who read Hungarian will make good use of the book, it would clearly be advantageous to have it translated into French (or English) in order to ensure that it reaches the audience for whom it is of primary importance. Hopefully, this will happen in the near future.

András Vadas

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Batthyány Boldizsár titkos tudománya: Alkímia, botanika és könyvgyűjtés a tizenhatodik századi Magyarországon [Bolidzsár Batthyány's secret science: Alchemy, botany, and book collecting in sixteenth-century Hungary]. By Dóra Bobory. Budapest: L'Harmattan, 2018. 322 pp.

Boldizsár Batthyány is one of the most intriguing figures in the intellectual history of sixteenth-century Hungary. A highly educated patron of the sciences and arts, he imported a great many fruits of contemporary European culture to Hungary to his courts at Szalónak (Schlaining, Austria) and Németújvár (Güssing), all this in a time of war in Hungarian history. Despite his significance, relatively few scholars have studied his life and work in the twentieth century, and those who did for the most part wrote summaries about his life and courtly culture, of which only some aspects have been explored in depth (like cooperation between Batthyány and Carolus Clusius and the bookish culture). Dóra Bobory's monograph provides what is for the moment the most detailed account of Batthyány's life and the branches of natural philosophy which interested him and the people in his milieu. The predecessor to this book is a monograph by Bobory entitled *The Sword and the Crucible* (2009), which is based on her dissertation. However, Bobory not only translated the English monograph into Hungarian, she also extended and developed it further, incorporating new letters and editions of correspondence, as well as insights based on recent international secondary literature. The monograph is the seventh piece in the series "Microhistory," launched by L'Harmattan Publishing House, and the first part of the prologue is devoted to a discussion of the benefits of microhistoriography as a method. Indeed, the sources do allow the exploration of several milieus within Batthyány's world which mirror relevant macro phenomena of Hungarian and European cultural history. Furthermore, Bobory outlines the historical vicissitudes and the present state of the group of sources on which she drew (Batthyány's private correspondence, mostly in the National Archives of Hungary). I must note here that there are other documents related to Batthyány's court which could provide further data on the topic.

Both the title of the first chapter ("Imprints of a Life"), which is essentially biographical, and its first paragraph emphasize that the sources allow only a fragmentary reconstruction of Batthyány's life. Nonetheless, a large part of the first chapter, which surveys Batthyány's childhood and youth until he became a magnate in 1570, provides a relatively detailed and colorful story. As for his

studies, several preceptors of different nationalities taught Batthyány (who stayed mostly at the Németújvár court of his great-uncle, Ferenc Batthyány, ban of Croatia and Slavonia). He then continued his studies in Vienna. His most important and, for a member of the contemporary Hungarian aristocracy, unique experience was his journey to France (1559–61), where he was involved with the milieus of the royal court and the multinational intellectual life of Paris, which brought him into contact with the intensifying religious conflicts. The blank spaces of the biography have been aptly covered by digressions concerning Batthyány's time and milieu, such as the book merchant Jean Aubry's impact on the interests of aristocrats or contemporary dressing customs. There are, however, some data or conjectures that are not supported by references (e.g. that he probably served at the Viennese court after returning from France, p.55). However, a greater problem lies in the fact that two of the important years in the history of Batthyány's life, 1542 as the "probable" year of his birth and 1573 as the year in which his son, Ferenc, was born, are both highly questionable in light of information available in a genealogy by András Koltai entitled *Batthyány Ádám: Egy magyar főúr udvara a XVII. század közepén* (2012). The other part of the chapter does not proceed in a chronological order, but rather offers an overview of the major aspects of Batthyány's adult life: the traces of his attraction to Protestantism, his distanced and contradictory relationship to the Habsburg court, and his military engagements against the Turks. Little attention is given to other considerations, e.g. his activity as a landlord and his relationships with the foreign, especially Austrian, aristocracy, although related letters survive in abundance. Naturally, one could hardly have expected Bobory to include all non-cultural aspects in one chapter, and this would have required considerable additional research, but it would have been preferable had she indicated that there are sources which make possible further research on other fields of Batthyány's adult life. In sum, the biographical chapter complements our knowledge at many points (concerning mainly Batthyány's youth), and this rich outline provides details concerning several aspects (Batthyány's language skills, his foreign relations, etc.) which constitute useful background information for the following chapters on culture.

In chapter Two, Bobory discusses Batthyány's library with particular consideration of his known books on natural philosophy (enumerated item by item in the Appendix). She embeds the aristocrat's book collecting activity in the Hungarian (and partly in the international) context of bookish culture and also offers an overview of the development of the immense library, the

uses of books, the potential manuscripts, and the future fate of the library. A problematic point in the otherwise well-rounded summary is the classification of books. In addition to works by the “classical authors,” the library did in fact include a number of grammatical and rhetorical works written or edited by humanists. Cosmography and geography are not mentioned, although they are at least as important in the library as, for instance, astronomy/astrology (into the category of which the philosophical didactic poem *Zodiacus vitae*, classified as a “horoscope” by Bobory, cannot be put). Bobory impressively surveys the many branches of alchemy (related to medicine, among other sciences) and their presence in the library. She offers more than an overview of groups of books. A panorama opens up on contemporary European alchemy and its bookish culture. The same applies to the focused discussion of Paracelsianism. Bobory’s narrative of the summaries on Paracelsus, his relationship to Hungary, and the spread of his ideas is informative and broadly supported by the international secondary literature. One significant observation made in the book is that, alongside the Paracelsians, their adversaries are almost as well represented in the library. The library being a cross-section of contemporary culture, the whole issue is highly important and requires further research. In a recent study (“Adalékok Batthyány [III.] Boldizsár könyvtárához,” *Magyar Könyvszemle* [2018]), I discuss the topic from these perspectives, and I call attention to several other minor topics represented in the library.

Chapter Three focuses on the actual practice of alchemy and medicine. In these fields, Batthyány cooperated with several humanists/naturalists, primarily the poet and alchemist Elias Corvinus, the Styrian aristocrat Felician von Herberstein, and the physicians Nicolaus Pistolotius and Johannes Homelius. Bobory refers to them as the members of an informal circle around Batthyány, although it is in fact questionable to what extent the complicated network of relationships should be considered a “circle.” Pistolotius, for instance, stands somewhat apart, while there were others around Batthyány who dealt with alchemy, such as the Styrian nobleman Balthasar Wagner. This discussion is followed by a colorful overview of several topics related to natural philosophy based on correspondence. The Batthyány family founded a mining company and dealt with mint owners, mine inspectors, and even alchemist adventurers. As for medicine, diagnoses and prescriptions were often given in letters or in the course of lay consultations as a substitute for consultations with professionals due to the general lack of physicians. Furthermore, both traditional and exotic or innovative methods were used. The subchapter on alchemy surveys the

circumstances and conditions of Batthyány's alchemical activity rather than the activity itself (the laboratory, the instruments, the acquisition of raw materials, his assistants and books, and an enumeration of the main procedures and two uncontextualized examples for experiments written down in letters). The correspondence includes several prescriptions and descriptions of experiments, along with contemplations about nature and its elements. In the future, it would be worthwhile to make use of this rich alchemical source material in depth, although this difficult task would be better entrusted to a research group than a single scholar.

Batthyány also patronized Carolus Clusius, Europe's most famous contemporary botanist. Their cooperation enriched Batthyány's garden, and the study of the plants and mushrooms of *Pannonia* resulted in pioneering botanical works. Chapter Four completes at some points what was already known about their cooperation. Bobory incorporates some additional letters into her research, and she provides new data and conjectures concerning both the intellectual historical context and Clusius's activity itself. The most important result is perhaps the gathering of Batthyány's demonstrable garden plants. Chapter Five touches on some further aspects of the culture of his court, including the images painted after his death (which were symbolic expressions of his interests and prestige), his relationship with his friends and clients, and the main characteristics of his court. Finally, the epilogue summarizes the extent to which Batthyány, as a collector and "prince–practitioner," represented the newest Central European cultural trends.

I would be remiss not to observe that the translation of the Latin, German, and French letters is questionable at several points. Most of the quotations I checked at random contain one or more significant errors in translation (here I can only refer with the footnote numbers to some examples: 347, 654, 724, 734, 760, 811, 926, 931), and sometimes the summaries of parts of the letters suggest misunderstandings of the text (e.g. 837, 840, 904, 925, 931). For instance, the "unknown painter" on whom one of the subchapters focuses did not have to complete the work in Batthyány's castle "in 8–10 days," but rather had 8–10 days in Vienna (931). (There are also mistaken references to letters, but these mistakes probably are just slips of the pen.) It would have been preferable to have attached the transcriptions of the original texts at least to all the literal quotations (even if a partial edition of the correspondence is to be published soon), so that the reader would be able to check whether the translation and transcription are correct; this would not have significantly enlarged the book. These mistakes are

regrettable, since the monograph in general provides a vivid and multifaceted presentation of Boldizsár Batthyány and the natural philosophical aspects of his courtly culture. It adds significantly to the existing secondary literature and offers a rich discussion of the relevant issues in an international context. Bobory's style is also enjoyable, and both scholars and lay readers can benefit from the work, which demonstrates the zeal and excitement with which she pursued her research. The design of the book is also attractive. It includes eighteen color plates which conjure the atmosphere of Batthyány's age and culture.

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Practices of Diplomacy in the Early Modern World c. 1410–1800. Edited by Tracey A. Sowerby and Jan Hennings. New York: Routledge, 2017. 306 pp.

This book, edited by cultural historian of Tudor diplomacy Tracey Sowerby (Keble College, Oxford) and Russo-European diplomatic historian Jan Hennings (Central European University), seeks to bring together a range of scholars and reflect the ongoing reassessment of diplomatic agency and practice in the early modern period. Divided into three broad thematic sections (“Status and sovereignty beyond the state,” “Familiarity, entertainment, and the roles of diplomatic actors,” and “Objects and beasts”), it collects the latest scholarship within what has become known as “New Diplomatic History.” The book seems in part the result of a conscious effort to overcome the development of various “national traditions” in this emergent field. In other words, the book adopts a more actor-centric approach to scholarship, allowing for all the complexities and contradictions of the early modern diplomatic experience, as opposed to a “state-centric” model, which tends towards a teleological acceptance of the unrelenting, uniform development towards modernity during this period. As such, the book positions itself on the cutting-edge of the evolving New Diplomatic History, with an ambition to become “essential reading for all students of diplomatic history.”

The volume is an ambitious endeavor, to say the least, but bolstered by a sensible thematic progression which neatly draws the contours of the current historiographical landscape into focus, it broadly achieves its aim of providing an overview of the latest scholarship, relevant to students and researchers in the field alike. This is not to say that the reach of the volume does not occasionally exceed its grasp. Its bold aim to tackle the “Eurocentric heritage” of canonical scholarship on diplomacy lies, rightly, at the heart of New Diplomatic History. However, reflective of a broader shortcoming of the field, the discussion of “Diplomacy in the Early Modern World” is only pushed as far as India in two chapters, both studied through the lens of the Dutch East India Company rather than through the study of interactions independent of Europeans. This apparent weakness could have been wholly rectified by replacing “world” with “Europe” in the title, since the content remains rooted in the study of Early Modern Europe. Furthermore, at this stage it seems something of a straw man to constantly use Garrett Mattingly and the historiographical canon of the 1950s

and 1960s as a repeated oppositional reference point, though this again points to broader issues within New Diplomatic History as a field rather than a flaw inherent to the book itself. Overall, as a representative of the field of New Diplomatic History in 2017, the volume is a great success.

What strikes the reader most clearly throughout the volume is the overlap of cultural systems, norms, and networks in most if not all the cases studied. Duncan Hardy's chapter on Burgundian clients within the Holy Roman Empire sets the tone beautifully from the outset, questioning how we may (or may not) differentiate between expressions of international diplomacy and/or local political culture within composite, dynastic polities, which frustrate traditional definitions of sovereignty on each strand of their vast networks. The theme of sovereignty (on the national, "regional," and personal levels) comes through strongly in the opening section, with Gábor Kármán and Lovro Kunčević contributing illuminating chapters on the questions and contradictions thrown up by tributaries and indeed frontier provinces of the Ottoman Empire. Kármán's chapter mirrors some of the work of Ottoman diplomatic historian Dariusz Kolodziejczyk.

The second section of the book turns to the more hardcore "cultural turn" approach to diplomatic history, discussing decoration and ceremony, how the beginnings of opera were intimately connected to diplomacy, females in diplomacy, merchants in diplomacy, and trans-imperial tendencies in eighteenth-century Vienna. It is with Florian Kühnel's discussion of women that this section really takes off, offering real insight into the social history of an early modern embassy. Though Kühnel's characterization of the Ottoman *harem* is somewhat problematic, the chapter clearly demonstrates the multifaceted roles played by ambassadresses in varying European contexts. Similarly, Guido van Meersbergen does much of the volume's anti-Eurocentrism heavy-lifting by situating the Dutch East India Company as flexible merchant-diplomats and domestic players in an "Indian Ocean World." Van Meersbergen contrasts their status and concerns with those of royal ambassadors and envoys, and he deconstructs the idea of cultural incommensurability in the process. David Do Paço similarly interrogates constructs of commensurability in his article on Ottoman diplomatic missions to eighteenth-century Vienna.

The latter part of the volume deals with gift exchange. In Felicity Heal's case, this means sending a flock of geese in return for thirty ostriches and various cautions on the expensive inutility of elephants. These chapters largely expound the same theme: gift exchange as an important ceremony of premodern

diplomacy, but never a sufficient substitute for a constructive exchange of words. There have been many studies of gift-giving, but this collection still provides new insights. Germán Gamero Igea shows how gifts which were used to manage domestic and international politics in Aragon-Castile elided internal tensions in a complicated multiple monarchy. In the case of the Dutch East India Company, gifting symbolized the sovereign authority of the company within its Asian theatre of operations. Frank Birkenholz shows that their gifting choices demonstrated their Asian trade network and their familiarity with Safavid and Mughal practices. Jan Hennings' observations on practical gift-giving by trading companies as an illustration of their economic value are equally astute. Christian Windler's afterword then serves to distil perfectly the state of the art and tie up the book's themes.

Even to insiders, New Diplomatic History can appear to be a somewhat nebulous, ill-defined field. To the less charitable, it may resemble a group of historians distracted by what hats people wore to talks rather than the outcome of the discussion. If there is one area in which this volume particularly excels, it is in bringing to the fore the breadth and vitality of current scholarship on early modern diplomacy by scholars who, much like actors on the diplomatic scene in early modern Rome or Istanbul, hail from of a variety of backgrounds and nationalities. It will undoubtedly become "essential reading for all students of diplomatic history," if it has not done so already.

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Papok, polgárok, konvertiták: Katolikus megújulás az egri egyházmegyében (1670–1699) [Priests, burghers, converts: Catholic renewal in the Diocese of Eger, 1670–1699]. By Béla Vilmos Mihalik. Budapest: MTA BTK Történettudományi Intézet, 2017. 384 pp.

In a discussion of the spread of the influence of the Catholic Church in his synthesis on the cultural history of eighteenth-century Hungary, Domokos Kosáry pertinently remarked that we can only gain a clear image of the Catholic Church's renewal in Hungary "if we put it together piece by piece, relying on the local sources of each diocese." Béla Mihalik's recent monograph fulfills this requirement. The book, which focuses on the Diocese of Eger, is a remarkable undertaking in many respects, and it constitutes an important contribution to our understanding of the (social) history of the Catholic church.

In this review, I wish to highlight three segments of the monograph. First and foremost, I would mention the sources used by the Mihalik. Mihalik deserves praise for having explored the materials held in the most important collections in Rome, Vienna, Budapest, and Esztergom. Furthermore, he did so in a systematic and consistent manner. He also delved into the local sources in Heves County (where the Diocese of Eger is found) and sources on the Catholic and Reformed Churches. As is appropriate in a study of the time period in question, he analyzed the secular and ecclesiastical sources side by side. This abundance of sources enabled him to explore his subject from a multifaceted view and create a sophisticated synthesis, in which the objectives of the Church and secular organs of power are presented simultaneously, as are local and individual interests. In the course of his research, Mihalik recognized the inner logic and dynamics of the institutions he was examining, as a result of which he was able to reveal certain aspects concerning the subjectivity and objectivity of his sources.

It is also important to note that Mihalik duly embeds his findings into a greater framework. We can distinguish two levels of contextualization. First, Mihalik strives to interpret the events and processes which took place in the Diocese of Eger in the framework of the Catholic renewal in Hungary and the Habsburg Monarchy. He reflects astutely on the findings of earlier scholarly literature and incorporates the newest insights on the history of dioceses in Hungary into his argument. Second, he adapts the methodological approaches and abstraction methods in the international secondary literature to his inquiry

rather well. The theoretical framework is not there for its own sake. Rather, it is used by Mihalik astutely and successfully, as a result of which we are given a coherent image of the confessionalizing tendencies in northeastern Hungary, and also new perspectives are offered from which to consider the topic.

Furthermore, I must highlight the cases Mihalik uses to support his argumentation. It is characteristic of the whole book that its author brings the underlying aspects of his subject closer to the readers by drawing on relevant examples and case studies. Moreover, by relying on the micro-analysis of the three centers of the diocese (Kassa [today Košice, Slovakia], Nagybánya [today Baia Mare, Romania], and Eger), each of which had a heterogenous society and source basis, Mihalik is able to model and offer a comparative analysis of the complex and distinctive processes of Catholicization. He presents a sphere of action in which the Habsburg court, the Chamber of Szepes, the military, the diocese, the county, the magistrate, and the local society requested and were given a part in certain procedures, though each represented different ideas and viewpoints with varying levels of intensity. Furthermore, Mihalik presents the means and methods (for example, teaching, feasts, indulgences, the management of marriages and divorces, influencing the composition of the magistrates, etc.) through which it was possible for the Church to Catholicize the society of the town.

Mihalik examines the participation and interaction of the different levels of secular and ecclesiastical authorities in the process of Catholic renewal, and he analyzes them from a multidirectional perspective. He puts great emphasis on the importance of interpreting Catholicization in the context of its own dynamics and on capturing the special nature of the different events and/or series of events, as well as the underlying interests. It is characteristic of the book that it presents the “two-faced nature” of the Catholic renewal, outlining both the violent aspects of the Counter Reformation which culminated in wars of religion, as well as the phenomena related to the inner renewal of the Catholic Church.

Mihalik’s decision to examine a specific period of thirty years in his monograph seems justified. The opening date (1670) is marked by the leadership of Bishop Ferenc Lénárd Szegedy and the political changes following the fall of the Wesselényi conspiracy, and the closing date (1699) is linked to the Treaty of Karlowitz, the leadership of Bishop István Telekesy, and the return of the episcopal see to Eger. However, if needed, Mihalik diverges from this strict temporal framework and reflects on the precedents and later consequences of certain events.

The structure of the book is logical, as the different layers build on one another, all the while presenting new perspectives. In the first part of the book, the *actors* of the Catholic renewal are introduced. Mihalik surveys the role of the bishops, the chapter, the vicars, and the religious orders, and he reflects on the cooperation between the church and the state. In the next part, Mihalik concentrates on the *regions* and *spheres* of the Catholic renewal, presenting an intelligible image of the constant changes which characterized northeastern Hungary in this period, as well as the interplay between the macro-, meso-, and micro-levels of analysis. He divides the development of the Catholic infrastructure into subperiods and outlines the cesurae which mark turning points for both the Catholics and the Protestants and their positions for negotiation. Thus, Mihalik is able to guide his readers through this transformative period, which is rather difficult to capture. He puts certain events, such as the Acts of Religion of 1681, Imre Thököly's movement, and the impact of the Explanatio Leopoldina, in a new, somewhat more intelligible light.

Mihalik's book fits well into the scholarship on the history of the seventeenth-century and eighteenth-century history of Hungarian dioceses, which gained momentum in the first decade of the new millennium. It presents the unique phenomena of the Catholic renewal in the socially and confessionally heterogeneous region of northeastern Hungary as a system, and Mihalik's findings and insights constitute a significant contribution to the history of the larger complex process of confessionalization in Hungary.

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The Sinews of Habsburg Power: Lower Austria in a Fiscal-Military State, 1650–1820. By William D. Godsey. Oxford: Oxford University Press, 2018. xx+460 pp.

An eminent scholar of the Austrian estates on the threshold of modernity, William D. Godsey applies the concept of the fiscal-military state to almost two centuries of Habsburg history in his recent book. (The term fiscal-military state was coined by John Brewer in *The Sinews of Power: War, Money and the English State, 1688–1783* [1989]). Focusing on the example of the estates of Lower Austria and basing his narrative on overwhelming evidence, Godsey convincingly argues that, contrary to the established historical narrative (for instance, Gerhard Oestreich, “Ständetum und Staatsbildung in Deutschland” in *Geist und Gestalt des frühmodernen Staates* [1969]), the estates were not sidelined after the Thirty Years’ War, but their significance increased and their support was, indeed, decisive in making the Habsburg Monarchy into a “mature fiscal-military state able to tax and borrow effectively” (p.397) and therefore able to give adequate responses to the ever mounting challenges of Early Modern great power politics.

Following in the footsteps of Peter Dickson (*Finance and Government under Maria Theresa, 1740–1780* [1987]), Godsey explains how the Habsburgs could finance their army (24,500-strong in 1650, 100,000 at the beginning of the eighteenth century, 200,000 in the 1730s, 300,000 at the accession of Joseph II, and no less than half a million by the end of the Napoleonic wars), and his reader is confronted by a decisive and even growing importance of the estates: their commissioners were charged with provisioning, billeting, and recruiting for the new standing army and also with providing logistical services. In 1689, the estates of Lower Austria began to vote for the annual contribution, the war tax, for a longer period in advance (*Rezeß*), and they also borrowed increasing amounts of money (first from their own members and, at the end of the period investigated by Godsey, also from an increasingly wide stratum of the population) to make loans to the government at low interest rates, as the estates of the Bohemian and Austrian provinces were able to borrow at a significantly lower interest rate than their monarch. Thus, a “new fiscal-military system” (p.150) was established between the 1670s and the 1720s.

The great reforms of the mid-eighteenth century excluded the estates from jurisdiction and first introduced and then strengthened government agencies on the regional level (*Kreisämter*). The estates’ own administrative bodies were forced

to undergo reform. The estates' obligations to provide for the army through the system of commissioners were converted into a pecuniary burden. Prussian-style conscription and new taxes were introduced, and the contribution witnessed a twofold increase, but despite all these changes, the estates' role in financing the army became more and more important. They voted for the war tax annually, even during Joseph II's reign, in order to demonstrate their autonomy, which was crucial if they sought to preserve their creditworthiness. They continued to collect the contribution themselves, and a part of these monies (and sometimes parts of other government revenues) remained in their hands to cover debt servicing, i.e. to pay interest and instalments on the loans they themselves had put at the ruler's disposal. Their survival was therefore an eminent fiscal interest of the state.

The success of the fiscal-military state of the Habsburgs is best demonstrated in comparison with France, where the reliance on the sale of offices, an exploitation of *ancien régime* privilege, and the introduction of an almost universal tax did not yield the expected financial stability in the long run. Alienated from the monarchy, the elites were reluctant to support the French monarchy, which was bankrupted by the wars of the second half of the eighteenth century and which collapsed thereafter. With the help of the elites of their central Austrian and Bohemian provinces, the Habsburgs, however, proved able to finance their growing debts. Their monarchy was close to financial breakdown at the end of the Seven Years War and in bankruptcy following the French occupation in 1809, but institutional changes helped them out of the crisis, including the devaluation of currency by 80 percent in 1811. Had the estates not played their role in taxation, provided for the army, and given credits to the government, the Habsburg Monarchy would not have survived the long wars and ever more overstrained periods of 1672–1718, 1733–1763, and 1788–1815. And all this time, the alliance between the Habsburg state and the noble elites was maintained.

During the Seven Years War, the province of Lower Austria contributed more to the war efforts in financial terms than the whole Kingdom of Hungary (43 vs 42 million florins respectively). Of these monies, 12 million florins were the contribution, 6 million florins the extra taxes, and the rest, almost 25 million florins, were loans given by the estates. Godsey argues convincingly that this last item is the key to understanding the survival and continuing importance of the estates in the Austrian and Bohemian lands of the Habsburg Monarchy. However, it is important to keep in mind that the *Wiener Stadt-Banco* was an even more important source of credit for the monarchy (p.224). Moreover, as the

cases of Russia, post-1793 France, and (to a lesser extent) Prussia demonstrate, the mobilization of resources was possible in this period through other channels than those of the fiscal-military state (see Hamish Scott, “The Fiscal-Military State and International Rivalry during the Long Eighteenth Century,” and Michael Hochedlinger, “The Habsburg Monarchy: From ‘Military-Fiscal State’ to ‘Militarization’,” both in Christopher Storrs, ed., *The Fiscal-Military State in Eighteenth-Century Europe* [2009]).

As far as minor inaccuracies are concerned, one may note that it was not the Austrian abbey of Klosterneuburg (p.91) but that of Heiligenkreuz that took over the abbey of Szentgotthárd in Hungary after the expulsion of the Ottomans, and that instead of a mere three monasteries (p.295), the lower clergy had an approximately 40-strong representation in the Hungarian diet.

But these minor details do not alter the general impression that Godsey’s book is a major contribution to the field, one that presents a very convincing argument concerning the survival of the Austrian estates into the nineteenth century.

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Südosteuropa: Weltgeschichte einer Region. By Marie-Janine Calic.
Munich: C.H. Beck, 2016. 704 pp.

Marie-Janine Calic's book is not the first attempt to offer an overview of Southeast European history, and it will not be the last. Yet it is a uniquely interesting and innovative attempt to present the complex history of this region. In contrast to other textbook treatments, such as the one coauthored by me, Calic approaches Southeastern Europe from a global history perspective: she is interested in the patterns of entanglement which link different local developments to processes in other parts of the world. Southeastern Europe is often said to be at the crossroads of different cultures and civilizations because of its geographic position and the frequent inclusion of the region, or parts of it, in large empires which stretched far beyond the Balkans. Rarely has this been taken so seriously as a general explanatory framework for the history of the region. This is a book about transfers and entanglements, about dependency and exchange, about Southeastern Europe's place in global history and global history's impact on Southeastern Europe. At the same time, the reader will find everything she/he needs to know for a quick overview of the important events, processes, and personalities which shaped the history of the region.

One of the dominant themes of the book is the diversity of the region and how diversity has been linked to external factors, such as Great Power interventions or the Americanization of global culture after 1945. In her introduction, Calic stresses that the people of the region share many experiences, and their fates have until now been closely entwined, but despite many commonalities in the historical development, no "unified socio-cultural space [has] emerged." There is no "common identity," but instead a "unique socio-cultural diversity" (p.9). Of course, such a claim is difficult to prove (what is the yardstick of diversity?), and the assertion in question seems Eurocentric (from the point of view of India or a city like Toronto, Southeastern Europe looks quite homogenous). Yet, it is indeed one of the notable features of Southeast European history that despite very long periods of shared rule by empires (especially the Byzantine and the Ottoman ones), similar dynamics of nation building, and the shared experience of state-socialism, the degree of regional integration and cultural unification is rather weak. This prompts reflection on the ways in which "larger" external forces are appropriated in different ways on local (and also "national") levels.

The main units of analysis are not countries, nations, or personalities, but forms of exchange and transfers that have linked different parts of the region with one another and with other parts of the world. One of the recurrent questions, therefore, is what conditions and which actors promote and shape exchange and which factors obstruct it. As Calic makes clear, Southeastern Europe was incorporated into networks of communication and interaction which transcended the region since Antiquity. Yet at the same time, there were also infrastructural limits to deeper integration. Maybe this tension could have been more deeply explored, because at least in the Modern period, Southeastern Europe stood out as an isolated place in some social arenas (see for example the extremely low literacy rates in the nineteenth century). Even today, it is less integrated into pan-European circuits of capital, information, and transportation than other parts of the continent, mainly because of its economic marginality.

Despite its innovative conceptualization, the book meets the standard expectations readers tend to place on a history of a region. One does not have to read more conventional accounts before turning to this more ambitious one. The chronology is also quite familiar and helps the reader position Southeast Europe in larger historical contexts. The first, comparatively short part sketches developments from Antiquity until around 1500. This is followed by a chapter covering mainly the Ottoman period and the competition between the Ottomans and the Habsburgs and Romanovs for domination (1500–1800). Part three is devoted to the “Century of Global Revolutions” (1776–1878). Part four goes from the climax of the Oriental Question to the end of World War II (1870–1945). The fifth part covers postwar history until today. Postwar Greece receives rather scant attention, and the treatment of post-socialism is tangential. This periodization indicates that the author highlights parallel events in other parts of the world which either influenced developments in Southeastern Europe or could be seen as incarnations of similar structural forces, such as the revolutionary struggle against ancient regimes in the late eighteenth and early nineteenth centuries.

One of the strengths of the book is the way in which it interweaves structural history and stories of concrete places and personalities. Calic seeks to highlight the progress of globalization in terms of intensified trade and communication, but also to trace the actions and perceptions of the protagonists of these stories. One learns how people actually perceived the world, what they knew about it, and how they saw the place of their country in the larger global or at least European context. In order to craft a detailed and lively account, Calic developed a very

well executed dramaturgic strategy: she closes each chronological section with a description of a concrete place and its entanglements with the wider world at that time. Thus, readers learn about (the Albanian town of) Kruja (1450), Istanbul (1683), Ragusa/Dubrovnik (1776), Plovdiv and the nearby mountain areas (1876), Belgrade (1913), Bucharest (1939), and Sarajevo (1984). As the selection makes clear, each case study presents insights into general developments which were characteristic for the whole region at the time, such as the complex power configurations in the Balkans on the eve of Ottoman conquest (Kruja) or the dynamics of urbanization and its ambivalences in the early twentieth century (Belgrade). It is a pity that there is no case study for today.

These case studies, all extremely engaging and interesting, indicate another major strength of the book. It is based on very extensive research, and it is therefore extremely informative. Calic took her information from the most current secondary literature, and she manages to weave the different empirical points into a coherent, compelling narrative, even using excerpts from diaries and other personal accounts. Rarely does a historical narrative combine a clear thread and interpretation with such a good mixture of erudition and detail. In contrast to other overviews, this one is richly referenced (though the reader needs a magnifying glass to decipher the endnotes). Several images also illustrate the story. With maps, however, the publisher has been too frugal. A timeline of events and the index make the book easy to use.

A bold take on the history of the region invites also disagreement. Given Calic's emphasis on entanglements and her understandable excitement about extremely mobile and interesting personalities, I sometimes wondered about the relative importance of localized forces of inertia, such as climate and terrain, ignorance, or the lack of infrastructure. I think it is part of the diversity of the region that highly interconnected arenas of social interaction existed next to very isolated ones and that important historical events were shaped by this tension (the Romanian peasant uprising of 1907 would be a case in point). But this quibble actually shows what this excellent book has achieved, in contrast to more conventional treatments. It inspires debate and will stimulate fresh research. A translation into English would be very welcome. Anyone with an interest in Southeastern Europe should read this book, anyone not yet curious will become so once they have read Calic's account.

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Climate in Motion: Science, Empire, and the Problem of Scale.

By Deborah R. Coen. Chicago: The University of Chicago Press, 2018.
425 pp.

Deborah Coen's *Climate in Motion* argues that the modern concept of climate is a multi-scalar achievement. Drawing on an extensively researched and detailed history of climate science in the Habsburg Monarchy in the nineteenth and early twentieth centuries, Coen argues that the history of climate science is also a history of scaling. Rather than the singular or orderly climate found in many accounts of climate science in the United States or in British scientists' visions of the Indian climate, Habsburg climate science emphasized the continuing relevance and importance of local climate within a heterogeneous but interconnected whole. Coen suggests this distinctive characteristic had resonance with the structure of the Habsburg state, made up of a set of distinct kingdoms and principalities, and the natural variety in a region in which diverse local socio-economies were intimately tied to local climates and vegetation.

Habsburg scientists scaled their work in ways which made the particularities of place emblematic of the natural and social heterogeneity of the state. Coen argues that these scientists determinedly connected their science to interventions in matters of public concern, empire, and economic and political interest. Scaling was not only a scientific exploration, therefore, but a very human one too, "mediating between different ways of measuring the world" (p.20) and debating the uncertainties of science in considering the social, economic, or political implications of their work. Scaling was also built through bodily labor and artistic imagination, perhaps no better demonstrated than in the case of Heinz Ficker's emotionally-charged diary of his travels through Turkestan.

Climate in Motion has three parts. The first explores the precursors to and development of mid-to-late nineteenth-century environmental science within the Habsburg Monarchy. It sets out the experience of empire throughout the territory of Austria-Hungary and the ways in which the imperial celebration of the diversity of local climates was significant for both scientific work and the mapping of territory. Meteorologist Karl Kreil's work is used as an example of this connection between local and global perspectives, in emphasizing the studies of individual places while constructing a synthesis which would form a unity in a heterogeneous way. As Coen suggests, this work of scaling was political in its pluralism and reflective of the empire's structure in its insistence

on the relevance of localism while seeking a coordination of knowledge which would not be unipolar or authorized by a single calculative office.

The second part explores in more detail how scientists analyzed, mapped, and painted the empire to represent and inform this “Austrian Idea” of the diversity of the territory. Cartography presented a particular challenge in this regard, as maps (such as the 1887 atlas of Austria-Hungary) struggled both to convey the diversity of local detail and to remain relevant to the ideal of a connected territory. Cartographers needed to represent scale, and they did so through innovative techniques such as a greater use of color to display elevation and represent local variations as interdependent, making it possible for a more unified visual picture to emerge. Equally importantly, the development of dynamic climatology in Austria in the last two decades of the nineteenth century, through the work of scientists like Julius Hann and Alexander Supan, enabled the local climate to be significant in revealing and explaining a more interconnected global unity. The rapid expansion of observation stations, however, was not solely about creating datasets for a dynamic climatology, but was also a reassertion of the vitality through diversity of local climates for human concerns such as health or economic life in those places. While dynamic climatology enabled the word climate to be deployed on a more planetary scale, this did not displace the local scale. As Coen points out, the multi-scalar notion of climate which had emerged by the early twentieth century enabled scientists to assert the global effects of local climatic disturbances.

This becomes particularly important for the final part of *Climate in Motion*, in which Coen draws out the social work of scaling in exploring examples of work related to forests, flowers, and travel. Plants could be influenced by the climate and could influence the climate, and Coen draws on, for example, the naturalist Anton Kerner’s work to consider how changes in vegetation patterns could be scaled through dynamic climatology to provide evidence of the necessity and importance of local observations in tracking broader climatic changes. In a different example, forests provided the catalyst for a social scaling of scientific questions about forests and climate and about whether forestry legislation should be tightened. While many scientists recognized that deforestation would have to an impact on climate, the social scaling of these studies was contested through debates about the kinds of knowledges that were legitimate and the implications of such scaled knowledge for farmers and land owners. Austrian forestry law concluded both that deforestation influenced the climate and that the atmosphere was an unregulated and unlimited resource. Scaling, in this case, did not lead to stricter forestry legislation.

Throughout these parts and in the work of the various scientists under consideration, Coen maintains a clear focus on the work of scaling as scientific, social, and embodied and distinctive for the Habsburg Monarchy. It is interesting to ponder, however, whether this distinctiveness is primarily about the uniqueness of the empire or as much about the way histories of climate science in other places have typically been written. Coen challenges future historians of climate science to pay more attention to diverse and heterogeneous kinds of climate knowledges and the ways in which they are scaled and to resist singular, uniform accounts of a global climate “waiting to be discovered” (p.272). This is crucial to Coen’s hope that the lessons of scaling might be fruitfully applied to contemporary climate change debates and thus might further an understanding of how climate sciences have been scaled in particular ways, how they embody particular kinds of labors, and how they connect (or disconnect) multiple alternative local knowledges and are contested in their social scaling.

Climate in Motion is well-written, beautifully illustrated book, and I can highly recommend it not just to historians of the Habsburg Monarchy or the atmospheric sciences, but to anyone interested in exploring how the study of history can inform contemporary debates.

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Geteilte Berge: Eine Konfliktgeschichte der Naturnutzung in der Tatra. By Bianca Hoenig. Umwelt und Gesellschaft 20. Göttingen: Vandenhoeck & Ruprecht, 2018. 239 pp.

From the outset, the reader of the original German text has an advantage over the Anglophone, to whom the translated title *Divided Mountains: A Conflict-History of Nature Use in the Tatras* conveys only half of the intended meaning. The German verb *teilen* (adjectival form: *geteilt*) means to share as well as divide, something the author of this monograph expressly meant to convey. The cleverly chosen title, thus, could just as easily have been rendered “shared mountains.” Indeed, this compelling new contribution to environmental history deals with both the shared and divided nature (pun intended) of the Tatra Mountains, the highest range within the vast Carpathian mountain system. Although neither as prominent nor as famous as the Alps of west Central Europe, the Tatras have nonetheless played a disproportionately large role in their own region of Europe. They have also been many things to many people.

Much has been written about the Tatras, albeit primarily in their “divided” sense, with authors generally sticking to either the Polish (northern) side or the Slovak (southern) side. Having mined archives in Poland, the Czech Republic, Slovakia, and Austria, Bianca Hoenig reminds us that these mountains are nevertheless a shared resource, and she demonstrates how at various times they have functioned transnationally. The subject of her book is the history of the clash between claims to the mountains in the “age of territorialization,” a concept introduced by Charles S. Maier. While not a comprehensive history of the Tatras, the book presents a series of well-chosen examples which show how various parties have sought to utilize the Tatras since the second half of the nineteenth century. (The traditional pastoral and forest economy, tourism, and nature preservation comprise the main uses of the mountain terrain.) Each chapter revolves around the question which serves as leitmotif of the book: “to whom do the Tatras belong?” However, each approaches this question from a different perspective. Four types of ownership (*Eigentum*) figure: landownership, the traditional usufruct of pastureland and forests, affiliation to a given state, and symbolic ownership by an ethnic, national, or social group or even humanity in general.

One of the strengths of this admirably analytical and cogently argued work is its transnational approach. This comes through in the first substantive chapter

of the book, which deals with the nineteenth century “discovery” of the Tatras during the period of Habsburg rule. Hoenig laudably presents this fascination with the mountains among all parties to the “discovery,” to the south and to the north of the internal Habsburg border which separated the province of Galicia from the kingdom of Hungary. The reader is introduced not only to various groups of Poles and Slovaks, with their national claims, but also to Zipser Germans, who were the engine behind the development of resorts, sanatoriums, and hotels on the southern side. Ethnic Hungarians are largely absent from the story, if referenced in notes, although of course both Slovaks and Zipser Germans were members of the Hungarian state until its truncation after World War I.

The true meat of the book, however, is found in the remaining chapters, all highly original, well contextualized and crafted, the content of which can only be sketched here. Chapters Two and Three deal with the interwar period in the new states of Czechoslovakia and Poland, where the Tatras then lay. Here, the focus is on the conservationists’ idea of a transnational, American-style national park. Chapter Two considers the project—not realized—of a joint Czechoslovak-Polish national park, which was intended to help secure peace for the region. Yet mistrust on both sides ultimately led to the Tatras becoming more a bone of contention, as seen in the Polish annexation of Jaworzyna/Javorina in 1938. The chapter which follows switches focus from interstate to intrastate negotiations, as the respective national populations of Czechoslovakia and Poland were divided in their views of the Tatras and their visions for the region. The conservationists ultimately lost out to the locals, who feared losing their livelihood, and those who sought to “bring modernization to the mountains” (p.101), for example, in the form of a cable car up Kasprowy Wierch on the Polish side.

Although World War II marked a caesura in usage rights, it is given relatively brief treatment in the book, serving more as a point of transition to the final three substantive chapters, in which the “high modern new ordering of space and population” proceeded apace (p.117). In chapter four, the loss of the Jewish and German populations of the mountain region facilitated the establishment of individual national parks and, in Poland, the shift of transhumance out of the Tatras into the depopulated Carpathian regions of Beskid Niski and Bieszczady to the east. The final two chapters point to moments in which civil society emerged under socialist rule, such as the Czechoslovak idea of a monorail in the Tatra region, which seized the popular imagination (of Slovaks in particular) during the Prague Spring of 1968. Chapter Six reckons with the dispossession

of the Polish Górale (highlanders), who lost their usufruct and other rights in 1970, only to regain them partially during the Solidarity period a decade later.

A concluding chapter sums up both the current situation and Hoenig's overall argument. Among other things, she sees the conflicts she has examined (and persuasively contextualized within global and regional history) as exemplifying fundamental issues in the interactions of modern societies with nature. The overall impression of this dissertation-turned-book is impressive. Bianca Hoenig is to be commended for this fine contribution to the history of the Tatra Mountains and the environmental history of Europe (and—given its broad contextualization—the world). It will be enjoyed not only by those interested specifically in the Carpathian Mountains or this part of Europe, but also by environmental historians of all stripes.

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Germany's Empire in the East: Germans and Romania in an Era of Globalization and Total War. By David Hamlin. Cambridge and New York: Cambridge University Press, 2017. 354 pp.

Was World War I a caesura in European and world history, or did it telescope and accelerate developments already underway at its outbreak? Was it a triumph of nationalism, a crisis of empire, or a test of long-established and possibly-obsolete systems of international relations and trade? David Hamlin's book addresses these questions through a geographically and temporally specific case study: the sea-change in Imperial Germany's economic and political relations with Romania in the course of the war. Hamlin combines economic history, the history of ideas, and the study of international relations as a dynamic phenomenon (how states interact with other states as well as substate groups and individuals over time) in order to examine abstract and fluid concepts such as the existence of an international order, informal empire, and *Realpolitik* and *Weltpolitik*. The book is structured both chronologically and thematically. The narrative opens with a discussion of the interdependence of nations at the turn of the twentieth century in economic terms as well as military and diplomatic alliances. Hamlin then devotes the two long central chapters to German-Romanian relations in World War I, and he then examines the economic consequences of German hegemony for Romania.

Hamlin brings World War I as a crisis of nineteenth-century Western liberal, national, and imperial values into startling relief through his analysis of Germany's changing attitudes to Romania. The wartime disruption of global trade and attendant economic difficulties in Germany made German politicians and military leaders even keener than before to secure access to Romanian economic resources, especially its grain and petroleum. The sharpening perception of the world as divided, not so much into friends and foes as resources and foes, led to a willingness to justify German intervention in the domestic affairs and economies of other states in order to secure Germany's position in Europe, a suborning of elements of *Weltpolitik* in the service of the goals of *Realpolitik*. German fear and resentment of British and American economic power in the world prompted German leaders to see Romania, which until then had been lauded as a developing European economy in which Germany could invest to the benefit of both countries and to facilitate global trade, as essentially an imperial dependency of Germany in Southeast Europe. This entailed an attendant change

of attitudes toward Romanians as a vital nation with a bright future ahead of it to a perception of Romanians as economically backward and culturally inferior to Germans.

Following Romania's attempted change of sides and declaration of war on Austria-Hungary in August 1916, the German occupation of its erstwhile ally quickly transcended established norms of military occupation, which ideally should have been temporary and should have minimized disruption in the lives of the conquered populations. Instead, the Germans treated Romanian territory, people, and economic resources as Germany's to exploit, with only minimal planning for infrastructure maintenance and improvement or the maintenance of the Romanian standard of living. As Germany sought to reorient Romanian agriculture, the Romanian petroleum industry, and Romanian trade relations to its exclusive benefit, it used varied tools of economic domination such as currency manipulation, debt, and domestic sales monopolies, and German-owned companies were used to control Romanian oil and Danube shipping. Germany also assumed control of state commissions in charge of regulating rail and river transport. Hamlin provides a wealth of detail on the German decision-making which went into these economic mechanisms and their effects on the Romanian state and population. German behavior in and toward Romania was a peculiar combination of aggression and defensiveness, and it could be seen as a symptom of Germany's growing desire to affirm its preeminent position in Europe and challenge both British-American economic might and Western traditions of the previous century.

Beyond the focus on changing German-Romanian relations, Hamlin's book draws several conclusions which should inspire work by other historians. Especially intriguing is the suggestion that Germany's increased interference in Romanian domestic affairs paralleled patterns of control and exploitation evident in the Global South but also in Britain's own increased financial and economic interference in its colonies during the war. German perception of lands to its east as having negotiable borders, conditional sovereignty, and primary use as sources of food and raw materials for the German market weakened the strict division between Europe and colony, metropolis and periphery, inherent in nineteenth-century liberalism. Moreover, Hamlin provides a vivid reminder that economic decisions by state leaders are never merely about financial interest or cost-benefit analyses. On the contrary, economic self-interest is shaped decisively by the state's dominant ideology and its elites' worldview, and vice-versa, changes

in economic relations with other states have a ripple effect on foreign policy and the state's understanding of its place in the world.

This book challenges the work of a diverse range of historians, such as Fritz Fischer, Kristin Kopp, Vejas Gabriel Liulevicius, and Isabel Hull, to argue that World War I was a point of departure and discontinuity for Germany and to emphasize the distinctions between Imperial and Nazi Germany's colonialist attitudes to the East and Southeast. Nevertheless, one wishes Hamlin had done more to explore "some alternative continuities with the Third Reich" (p.18), not least since so many of Adolf Hitler's ideas about conducting a European war stemmed from his understanding of World War I as well as his racism. The concept of *Grossraumwirtschaft* (the economy of large areas) constituted a fundamental rejection of *Weltpolitik's* reliance on global markets as a key to national prosperity and thus signified a departure from Imperial Germany's economic policy, but it did so by building on practices and perceptions which the German state used in World War I as a prelude to the nexus of destruction and exploitation that would be Nazi economic policy in World War II. This is less a criticism of the present work than a possible point of departure for future scholarship.

Likewise, it would be interesting to read a more Romania-centric version of the events covered by Hamlin, based primarily on Romanian archival sources and stretching beyond 1918 to cover Romania's fraught relations not just with Weimar and Nazi Germany but also post-imperial Hungary, given their constant one-upmanship during the Nazi period and the continuity of Germany's imperialist/colonialist attitudes to eastern and southeastern territories, borders, and peoples. The present work folds a discussion of Romania's relations with Austria-Hungary into the central narrative of German-Romanian relations, with some detail provided on Austro-Hungarian interactions with Romania within the alliance system, the former's role in the occupation of the latter, and evolving German and Austrian attitudes toward Romania. A specific analysis of the Austro-Hungarian and Romanian dynamic would only enrich this narrative.

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Erdély elvesztése 1918–1947 [The loss of Transylvania 1918–1947]. By Ignác Romsics. Budapest: Helikon, 2018. 452 pp.

Transylvania, which was the eastern territory of the medieval Kingdom of Hungary and which is still home to a Hungarian minority of over 1.2 million, holds a special place in Hungarian national consciousness. The loss of the region at the end of World War I, exactly one hundred years ago, represents a traumatic moment in Hungarian historical memory. Ignác Romsics's 2018 book *Erdély elvesztése 1918–1947* [The loss of Transylvania 1918–1947] is made especially relevant at the moment by this anniversary, which is at the same time the centenary of Transylvania becoming part of the Romanian state, as well as by attempts over the course of the past decade to reinterpret twentieth-century Hungarian history.

Romsics is, without doubt, one of the best-known Hungarian historians today, and his book forms part of a series of syntheses focusing on different periods of modern Hungarian history. He devotes about 450 pages (including several maps) to a presentation of the history of the *administrative* loss of Transylvania, from the collapse of the Kingdom of Hungary in autumn 1918 to the Paris Peace Treaties concluded at the end of World War II. Later formally abolished the temporary revisionist gains made by Hungary during the war and reestablished the status quo created by the Treaty of Trianon. Romsics focuses on and builds his narrative around two series of events of central importance in this almost thirty-year process: the transfer of authority over territories and the Treaty of Trianon at the end of World War I, as well as the period of World War II and the Paris Peace Treaties.

The structure of the book is almost “classically” chronological. However, the manner in which the events are recounted does not obscure significant themes and phenomena, as the author pays particular attention to them and returns to them repeatedly. The result is a highly readable, gripping, and proportionately structured narrative, which devotes considerable attention to minute detail (e.g. narratives of events on the basis of diary entries and letters) and the summary of larger processes, including discussion of background and context. At the same time, Romsics, drawing on his most recent research and his earlier works, deftly synthesizes the relevant findings of the secondary literature on the topic, and he also uses Romanian sources (with help from his colleagues).

The overview of the historical antecedents and context is followed by an account of the events of 1918–1920. This second part of the book is the most

substantial from the perspectives of both length and detail, as it focuses on the crucial years when the modern Hungarian state lost Transylvania, which it later reclaimed only in part and only temporarily. The borders reached by the Romanian army in the spring of 1919 and confirmed by the Treaty of Trianon in 1920 are valid today, and this was the time when the political and social processes which (in combination with other processes) have shaped the present conditions in the region began or gained momentum. The third part of the book begins with an overview of the situation in Transylvania between the two world wars. This overview is relatively brief, even though this period has been the subject of several important works, but Romsics places more emphasis on World War II and the years following it. In this section, Romsics presents the various views on the future of Transylvania which emerged at the time, the political games played by the Soviet Union, and the Paris Peace Treaties. He concludes with a brief afterword, which offers an overview of the topic in the second half of the twentieth century.

The structure of the work reflects Romsics's overarching intention to present and analyze key moments which may further an understanding of the decline of Hungarian *political* dominance in Transylvania. The central role of politics is shown by the fact that politics was the decisive factor, even though the loss of Hungarian economic, social, and cultural dominance was a considerably longer and much more complex process. Transylvania became part of Hungary again following the Austro-Hungarian Compromise of 1867 (after more than three centuries of independent development), and the Hungarian community could only maintain (or strengthen) its leading position in the multiethnic region (where the majority of the population was Romanian) by using the authority of the state.

Romsics could have placed greater emphasis on various aspects of social history or on the fact that Transylvania was not simply *lost* by “Hungarians” and the Hungarian state, but was also *seized* by another party, “Romanians” and Romania. Furthermore, he could have discussed in greater detail the briefly mentioned issue of historical antecedents, i.e. how *Hungary* obtained Transylvania after 1867, and by what means or campaigns Hungary attempted to (re)integrate and maintain ownership of the region. However, this would have been beyond the scope of the synthesis. Nevertheless, Romsics should also have made it clearer that in 1918–19, Hungary had to defend itself against invading foreign troops not only in Transylvania, but in all the border regions, and he should have devoted more space to a summary of the situation in Transylvania in the interwar period.

On the other hand, the variety of topics discussed in relation to the periods under scrutiny will certainly compensate the reader for any possible omissions. These topics include the dissolution of the Austro-Hungarian Empire in 1918, the rivalry between national movements, the (limited) opportunities Hungary had for armed defense, the question of territorial integrity and ethnic borders, Soviet “vacillation” over the status and territorial affiliation of Northern Transylvania at the end of World War II, the background of the 1947 reestablishment of the status quo (i.e. the borders defined by the Treaty of Trianon), the diplomatic games and power politics resulting from rivalries between small states and large powers throughout the period, etc.

Romsics’s book is also profoundly inspiring in another respect. By describing the often unexpected turns of events and the continuous changes in conditions, he succeeds in demonstrating the accidental nature of history and the way events solidify into “history” with the passing of time. Furthermore, by presenting often confused and contradictory narratives, he shows how the past is constructed in retrospect. This allows for a better understanding of developments like the idea of a Hungarian-Romanian confederation (proposed as one solution to the problem of Transylvania), which may seem far-fetched, even though relations between the two countries and nations were not characterized only by enmity and rivalry, but also by a mutual interdependence which raised the possibility of an alliance. However, the conflict of interest between the two nation-building efforts proved stronger in the end.

The competition between Romania and Hungary for Transylvania ended, after two world wars, with Hungary’s defeat. Thus, any description of how Transylvania was lost makes for rather depressing reading for many Hungarians. The closing lines of Ignác Romsics’s excellently written, concise, and thorough monograph nevertheless suggest a certain cautious optimism: Romsics regards the current situation as a stalemate, and he suggests that, although Transylvania has been lost to Hungary in an administrative sense, it has not been lost to Hungarians in Transylvania. The “classic” treatment of the topic and the objective style, which is devoid of pathos, contribute to making this book one of the latest reference works on the history of Transylvania.

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Beyond Balkanism: The Scholarly Politics of Region Making. By Diana Mishkova. New York and London: Routledge, 2018. 282 pp.

More than twenty years after the specter of balkanism was first exorcised by Maria Todorova's defiant critique of Western representations of the Balkans in her prominent book *Imagining the Balkans* (1997), the topic still merits scholarly attention. This time, however, it is not the West's orientalizing gaze towards the Southeast that comes to the fore. In her latest book, the Bulgarian scholar of the Balkans Diana Mishkova focuses on the scholarly exercises in symbolic geography of the Balkans, covering both external representations and, more importantly, local regionalist visions and self-designations.

Beyond Balkanism: The Scholarly Politics of Region Making fills an important research gap by giving voice and restoring agency to hundreds of Balkan scholars who have actively participated in and often decisively shaped academic and political debates on the region. Mishkova analyzes regional discourses of local academic luminaries like Nicolae Iorga, Ivan Shishmanov, and Jovan Cvijić, among others, whose names have unjustly faded from European intellectual debates on region making. Instead of being passive receptors or imitators of outside concepts of the Balkans, these scholars came up with their own vision of the region's essence and place within the European and global political geography, and they often subverted existing models of modernity, modernization, Europe, and its civilization. Thus, their discourses, as Mishkova argues, deserve to be analyzed and taken seriously as partners, albeit hardly equal, in a two-way process of knowledge production and region making. It is Mishkova's goal to combine the internal and external perspectives on the Balkans as a region in order to offer "the historical reconstruction of the understandings of the Balkans that have emerged from academically embedded discursive practices and political usages." (p.3)

In terms of structure, the book is essentially chronological. It begins with the nineteenth century, when the first ideas about the Balkans as a separate geopolitical entity emerged in the works of German, Austro-Hungarian, Russian, French, British, and, later, American scholars. As was the case in subsequent periods, these initial regionalist discourses frequently reflected political debates and cultural cleavages at home and buttressed specific political projects, but they still maintained some level of scholarly autonomy which gradually evolved into the establishment of an institutionalized academic field. Likewise, the first home-grown generation of scientists were not exempt from the entanglement of politics with

scholarship. Their attempts to conceptualize the Balkans/Southeastern Europe as a cultural-historical space (Chapter 2) were heavily influenced by linguistics, geography, anthropology, ethnography, and folkloristics, leading to some of the most methodologically innovative comparative approaches to the region's unique and common features. Chapter 3 provides an overview of the afterlife of these local academic projects and traces their adaptation to the dominant ideological climate of the interwar period, which prioritized research forays into national and regional mentality, the then-fashionable concepts of ethnopsychology, and autochthonism. Once again, Mishkova balances domestic perspectives with the next chapter, which analyzes external research ventures on the Balkans that were mainly in the context of Nazi economic and territorial expansion eastwards.

Chapters 5 and 6 deal with post-World War II shifts in symbolic geography, which almost led to the disappearance of the Balkans as a separate scientific object. Local scholars had to accommodate the new ideological shifts, once again readjusting concepts and discourses for diverse audiences and speaking the languages of nationalism, regionalism, and internationalism simultaneously at various academic fora. External scholars of the Balkans were also influenced by the Cold War. They had to grapple with the relocation of the Balkans/Southeastern Europe into the newly institutionalized area study of Eastern Europe and the dominant research agenda of modernization and backwardness. In the post-1989 period (covered in the last chapter), the Cold War intellectual straightjacket was gone, but research on the Balkans fell into a new epistemological trap laid by the (pseudo-)academic literature, according to which the region's supposed ontological essence was exemplified by the maelstrom of the Yugoslav Wars. This strand of engagement with the region was then strongly challenged by the spatial turn and postcolonial theory, which highlighted the constructed, arbitrary, and hierarchical nature of seemingly objective regional classifications and designations and questioned "whether the region can be a useful category of analysis given the 'invented' quality of the concept and its political uses." (p.215) In her conclusion, Mishkova once again reiterates the methodological benefits of her project, i.e. how studying "academic balkanism" reveals "the transnational flow of ideas and the communication between 'Western' and 'peripheral' concepts and definitions" (p.4) and teaches us to "appreciate the flexibility and fuzziness of our units of analysis and comparison." (p.239)

The book's strongest feature is undoubtedly the analysis of the ideas of the local purveyors of regionalist discourses. Mishkova clearly demonstrates the heuristic potential of their concepts, yet these are neither idealized nor

a-critically reproduced. The author illustrates how, despite their intellectually emancipating and deprovincializing potential, these conceptions of the region could easily function as the scholarly arm of an exclusionist project for ethnic homogenization. Their positivist methodological toolkit could counter romantic national(istic) discourse or just as well reinforce national stereotypes about uniqueness or superiority vis-à-vis neighboring peoples (in line with Milica Bakić-Hayden's *nesting orientalism*s). More often than not, the region's scholars were as enmeshed in politics as their Western counterparts, and their careers represented a constant struggle between serving the nation and maintaining scholarly standards. These professional dilemmas seem to have resulted in perennial methodological nationalism but, given the difficulties modern scholars have superseding the national framework, it is hard to fault their predecessors.

Finally, a few words must be said about the book's minor shortcomings. Despite the author's obvious expertise on Balkan scholarly production and intellectual history, there is a slight unacknowledged imbalance in the degree to which the various Balkan countries are represented in the book. Romanian, Serbian/Yugoslav, and Bulgarian regional discourses predominate over Greek, Ottoman/Turkish and particularly Albanian ones. The latter country seems to remain *terra incognita* even for specialists on the region, but Greek and Ottoman/Turkish academic output could have featured more prominently. In addition, I would have personally appreciated further elaboration on the intertwined academic and political activities of the large group of scholars of Balkan origin in the West whose expertise on their home countries and the region was in high demand during the Cold War. Notwithstanding these minor flaws and potential expansions, the book is indeed a major academic accomplishment.

Truly an example of entangled history, Mishkova's book demonstrates the benefits of combining regional and conceptual history. Constantly alternating between extra-regional and intra-regional academic perspectives, Mishkova describes how over time various national, regional, and transnational scholarly and political projects about the region emerged, influenced, and reinforced or clashed with each other. Thus, her book is a timely tribute to a long-standing local tradition of regionalist discourses which were never a mere shadow of their external counterparts. Suitable for scholars with various research interests, Diana Mishkova's richly researched book goes beyond the Balkans and balkanism in more than just the title and can provide a working model for exploring the scholarly politics of region making for other cases.

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Coca-Cola Socialism: Americanization of Yugoslav Culture in the Sixties.
By Radina Vučetić. Translated by John K. Cox. Budapest–New York:
Central European University Press, 2018. 360 pp.

Six years after its original publication, Radina Vučetić's popular study *Coca-Cola Socialism* is now available to broader audiences thanks to a new English-language edition. Viewed by Vučetić as one of the characteristic processes of the twentieth century, this detailed cultural-historical work offers an analysis of the trajectories and influence of Americanization on culture and everyday life in Socialist Yugoslavia in the 1960s. The study is framed by the definition of Americanization as a form of cultural imperialism through which the United States left a global impact primarily in the spheres of popular culture, mass consumption, and everyday life. Moreover, as Vučetić, persuasively argues, Americanization encompassed transmission and reception of cultural influences, with popular culture used as a political tool in domestic and foreign policies both in the US and Socialist Yugoslavia. In the Yugoslav case in particular, the character of Americanization and its appropriation is conceptualized through the often used historiographical notion of the country's in-between or hybrid position in the Cold War period, which Vučetić further includes in the broader "contradictory" context of the 1960s.

In light of these guiding concepts, in the four chapters of the book, Vučetić maps various high, mass, and pop cultural phenomena which were either imported from the United States or which emerged in Yugoslavia under American influence. The first two chapters focus on cinema and music, primarily jazz and rock 'n' roll, while the third chapter offers insights into modern art movements, such as abstract expressionism and pop art, and modern and experimental theater. The final chapter overviews a range of phenomena related to the topic of everyday life, from cartoons and comics, popular literature, fashion, hippie subculture, and television to Coca-Cola and other elements of consumer culture, such as the supermarket.

In the similarly structured chapters, Vučetić analyzes the use of these cultural and consumer products in both American and Yugoslav political and diplomatic agendas during the Cold War. On the one hand, the United States actively promoted its cultural presence in Socialist Yugoslavia, for example, by setting an artificially low price for the importation of Hollywood movies into Yugoslavia, which then significantly contributed to their popularity. On the other hand,

Yugoslav authorities equally accepted and institutionally endorsed American cultural imports through festivals, trade fairs, and the media. Vučetić completes the picture of these dynamics with a discussion of Yugoslav cultural phenomena which emerged under American influence – such as the so-called Partisan Western –, or with others that were characterized more generally by formal and intellectual tendencies similar to the global modern cultural production of the 1960s. In addition, a sketch of similar cases from other Eastern Bloc countries (such as Poland, Czechoslovakia and East Germany) and the indication of the continuity of certain phenomena from the interwar period complements the analysis with a useful, albeit rudimentary comparative dimension.

The argument that Vučetić makes on the basis of this extensive catalogue of examples is that while the diffusion and consumption of American cultural and consumer products was fully supported by the state-socialist authorities, the locally emerging modern artistic practices, primarily in the case of the critically oriented Black Wave cinema and experimental theater, were targets of censorship and repression. Vučetić's explanation for these tendencies is based on her understanding of the agendas of foreign and domestic policies both in the case of the US and Socialist Yugoslavia. For the United States, the promotion of cultural and consumer products was in general part of its propaganda campaigns during the Cold War. More specifically, in the case of Socialist Yugoslavia, it was part of an attempt to Americanize Yugoslav society and consequently use it as a Trojan horse in the struggle against East European state socialism. For Socialist Yugoslavia, the open acceptance of American influences was useful in creating a modern and liberal image of Yugoslavia as a more successful state-socialist system. However, as Vučetić claims, in the cases of cultural phenomena that were formally perhaps similar to the accepted American or Western products, but from the perspective of their content critically pointed against the Yugoslav state, the authorities were far less interested in maintaining the liberal image and more in protecting the system through repression and censorship.

Vučetić describes the conflicting situation created by these tendencies of the Yugoslav authorities as the schizophrenic reality of the Yugoslav system, and she uses it as a basis for the concluding statement, according to which the paradigm through which Socialist Yugoslavia can be best understood is summed up in the symbolic image of the two-faced Roman deity Janus. This claim concerning the Yugoslav state's Janus-like character (i.e. as being both in the East and the West) represents an attempt to redefine the existing scholarly perception of the in-between position of Socialist Yugoslavia during the Cold War. Without any

more particular nuances, the readers are, however, left with the impression that the final conclusion simply echoes the starting point of the analysis.

Theoretical and analytical engagement is the place where Vučetić's study seems to struggle the most. Concepts such as Americanization and the in-between position of Socialist Yugoslavia are taken without any critical distance, although the author herself provides a basis for their reconsideration. Firstly, examples of similarity with the Eastern Bloc and continuity from the interwar period significantly challenge the seemingly unique in-between status of Socialist Yugoslavia and thereby the character of Americanization during the Cold War. Secondly, although admitting that scholars mostly agree that the actual effects of Americanization are difficult to measure, Vučetić nevertheless draws sweeping conclusions concerning the United States' success in Americanizing Yugoslav society by transforming the everyday lives and worldviews of Yugoslav citizens through the promotion of Western values, such as freedom and democracy. In this regard, Vučetić seems to want to affirm that the US Cold War propaganda machine was successful in achieving its goal of diffusing liberal and capitalist values in state-socialist countries through cultural and consumer products. In this way, however, Vučetić's analysis disregards the complexity of messages conveyed by cultural media and traps these messages within the prevailing Cold War dichotomy of Western affluence and freedom versus the gray and repressed state-socialist reality.

Given the distance in time between the original publication and the translation, these conclusions have come to seem particularly problematic. Nevertheless, *Coca-Cola Socialism* appeared at a moment when there was no similar research on the cultural dimension of the political relationship between Socialist Yugoslavia and the United States. By covering numerous examples of American products and influences in Yugoslav culture and everyday life during the 1960s, *Coca-Cola Socialism* without doubt represents a pioneering contribution to the picture of the cultural and political landscape of Socialist Yugoslavia in this period. Moreover, the study gives shape to the broader story of relations between Socialist Yugoslavia, the United States, and to some extent Western Europe in the spheres of cultural diplomacy and commerce. The English edition of the study, therefore, will provide a larger audience of young researchers a much needed basis for further excursions into the complex world of Cold War interactions between Central and East European socialist states and the West in the second half of the twentieth century.

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Lajos Fehér: Egy népi kommunista politikus pályaképe [The career of a folk communist politician]. By István Papp. Budapest: ÁBTL; Pécs: Kronosz, 2017. 446 pp.

Before his book about Lajos Fehér was published, István Papp recommended it to his readers in a short video message on social media. In his review, he positioned the important agrarian politician of the party-state period between János Kádár and the recently deceased hardliner, Béla Biszku. This eye-catching new book, which, according to its subtitle, presents a “the career of a folk communist,” is more than a thorough political biography. It was published as part of the series of monographs by the Historical Archives of State Security Services (Állambiztonsági Szolgálatok Történeti Levéltára in Hungarian, or ÁBTL). It offers an analysis and reassessment of the development of Kádárism and the Hungarian model of the Soviet system over the course of the life of an individual. The volume is therefore at least as much about the Hungarian version of socialism as it is about the career of a talented young man from a rural community and his voyage into the party elite. While the reader follows the path of Lajos Fehér’s career (which led to the highest echelons of the party through the people’s movement and the illegal communist party, and then followed a typical trajectory from the organization of the political police through political demotions into Kádár’s politburo), the book also raises many political and social questions.

The well-edited, highly readable book is the result of a decade of research. At the same time, the monograph also follows one of the decisive trends in contemporary Hungarian historiography. The book reflects on works by writers of decisive biographies of Hungarian politicians, such as Ignác Romsics, János M. Rainer, and György Kövér, and it revisits the discourse on the respective era. István Papp provides insights into the Kádár era and Kádárism with regard to the social transformations and the decision-making mechanisms of the political system.

Though he uses an exciting variety of historical sources (memoirs, journals, recollections, newspaper articles, oral history interviews, public speeches, policy documents, secret service documents, etc.), Papp’s style remains coherent throughout. As a result of decades of diligent research, he has produced a work of meticulous philological analysis. He presents his theses in correspondence with the findings of the relevant secondary literature and embeds them in a

comprehensible theoretical framework. The individual chapters offer analyses of Lajos Fehér's responses to social and political challenges. At the same time, this is a proportionately written biography, which acquaints the reader with the protagonist's family background, political awareness, and illegal work and the stages of his political career. The main strength of the work, alongside its scholarly precision, is the balanced and flowing manner in which the narrative is presented.

It is also clear from Papp's lectures and journalism that the main questions of his research so far have concerned the processes of the transformation and ultimately destruction of the traditional world of agriculture. In addition, he has a keen interest in the opportunities public actors and ordinary people had and their room for maneuver, as well as the ethical dimensions of political activity. Thus, many parts of this monograph raise moral questions. By analyzing the stages of Lajos Fehér's career, Papp returns to at least three questions: what was the key to Fehér's success, what was his political responsibility, and what were the real results of his agricultural policy. This approach extends over his entire life and, indirectly, over the fate of an entire social class. The biography lays emphasis on the extent to which sacrifice made by Fehér's father and Fehér's education (i.e. inherited factors) and his diligence (his own efforts) determined his social mobility and political success. At the same time, this approach yields rather dramatic findings, as Lajos Fehér's father eventually died as a result of the collectivization campaign (the loss of his lands), a process in which his son was a major actor. (One possible reading of the monograph is as a dramatic, twentieth-century Central European family history with persecution, emigration, and new beginnings.)

The monograph presents the Hungarian socialist model and everyday life in the Kádarian agricultural world through fine characterizations, secondary sources, and statistics. According to a prevalent general memory of the recent past, grocery stores, which were full and well-fed, even chubby Hungarians were defining characteristics of Hungary under the Kádár regime. This image, which was an element of the regime's propaganda campaign, functioned as an illustration of the success of the regime's agricultural policy. Papp also puts forward arguments and counterarguments regarding the applicability of this model, but he leaves the final conclusions to the reader.

Remaining "critically respectful" of the facts, Papp avoids the pitfalls of postmodern approaches, but he indicates the limitations of the extent to which we can know and document the past. The most exciting details of Fehér's life

may have been processes, which took place behind the scenes or, when he was part of an organization that was illegal, or they may have been the processes involving changes in personal conviction. I am thinking of processes like Fehér's transformation into a communist, his role in the March Front, events, which took place when he was part of an illegal movement, his involvement with the political police, his departure from the organization, and, finally, his experiences of the 1956 Revolution. Many readers may be left feeling curious to know more regarding these questions. However, given the lack of adequate sources, Papp does not try to present stories, which go "beyond the facts." At the same time, he devotes a separate chapter to Fehér's character, and he deals with Fehér's inner world at several stages of his life, including his religious beliefs and their impact (his attachment to the Calvinist tradition).

When reading this narrative of the eventful life of Lajos Fehér, the reader may even have the impression that he was one of the leading cadres who survived everything and suffered no major grief during times of upheaval. He survived as a member of an illegal movement, and he survived the war, the Stalinist "vigilance campaigns" (persecution of the alleged internal enemy), and the 1956 Revolution, and in the meantime, he became highly influential. As a leading agricultural politician, he had a distinctive concept of reform (which Papp presents precisely and clearly), and although he was not a simple yes-man member of the cadre, he conformed to the party's internal policies. Indeed, the inner tensions of his public life reveal a great deal about the age. For instance, the introduction of Fehér as a former deputy chief of the political police (a short section of his career) offers new information. Reliable sources from this era are scarce, and Lajos Fehér is presented as a powerful man and a hard-handed figure insistent on adherence to order, who overstepped legal boundaries and who actively participated in the communist takeover. Müller Rolf's work on Gábor Péter, the head of the State Security Authority (Államvédelmi Hatóság, ÁVH in Hungarian), was published at the same time as this biography of Lajos Fehér, and both can be seen as signs of the "ripening" of contemporary historical research in Hungary. Based on the narratives of their careers and the careers of their colleagues who are mentioned in the book, we get a more nuanced understanding of the lives of the cadres whose careers included periods working as functionaries or in the state security services.

In Papp's analysis, the relationship between the economic reformer and the party cadre insistent on enforcing order is a recurring theme, as is Fehér's attachment to Imre Nagy and his legacy. At the same time, the study takes

important steps towards a reassessment of the orthodox communist and reformist qualities through a subtle presentation of minor actors. However, perhaps the main strength of the volume is the presentation of the agricultural lobby and the agricultural policy reforms. A clear and precise description of this lobby and these policy reforms is undoubtedly a new and significant scholarly achievement. In this respect, Papp's work feeds into discourses about contemporary history, primarily the ideas of János M. Rainer on Kádárism, and the works of Zsuzsanna Varga and József Ö. Kovács regarding agricultural history. Papp's monograph complements and occasionally amends earlier scholarly findings.

Ultimately, the main goal of the work is to introduce and examine a new political category, which will also serve as a new category in the study of politics. According to the subtitle of the book, it offers a narrative of the career of a populist communist. The proportionate structure and the chronologically written biography reveal the social foundations of "real existing socialism" in Hungary and the internal (human) resources of Kádárism more accurately than previous works have. The volume provides colorful social tableaux, and it offers a sociographical perspective, which draws ideas from political and economic history and agro-historical research.

The many stories in this 400-page monograph, which are narrated as anecdotes but analyzed according to scholarly methods, make for engaging reading. Papp's work may well serve as a foundation for further research, and given its concise language and clear style of argumentation, it could also be used as a "textbook." It provides an accurate biography, but it also offers essential support for an understanding of the reform potentials of Kádárism. The work is an essential read for those interested in the transformation of traditional peasant society in Hungary and the phenomena of "socialist modernization." Ultimately, the monograph can be used by Hungarian and foreign readers interested in the mechanisms of Kádárism and the Hungarian version of socialism.

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