



European Urban Population Dynamics, 1875-1904: Alexander Supan's Geography Textbook as a Historical-Geographical Source

Valerii RUDENKO¹, Diana-Elena ALEXANDRU^{*2}, Viktoriia BILOUS¹, Vasile ZOTIC²

** Corresponding author*

¹Yuriy Fedkovych Chernivtsi National University, Faculty of Geography, Chernivtsi, UKRAINE

²Babeş-Bolyai University, Faculty of Geography, Department of Human Geography and Tourism, Centre for Research on Settlements and Urbanism, Cluj-Napoca, ROMANIA

✉ rudenko_valery@ukr.net  0000-0002-7542-4399

✉ diana.alexandru@ubbcluj.ro  0000-0002-2221-9316

✉ geobilous@gmail.com  0000-0001-7394-836X

✉ vasile.zotic@ubbcluj.ro  0000-0002-4489-0637

DOI: <https://doi.org/10.24193/JSSP.2026.1.04>

Received: 27 November 2025

Received in revised form: 12 April 2026

Accepted for publication: 20 May 2026

Available online: 30 June 2026

Keywords: Alexander Supan, geography textbook, European cities, population dynamics, alternative data source, history of geography

ABSTRACT

This study examines the population dynamics of European cities in the last quarter of the 19th century through a systematic extraction and analysis of the urban population figures published across four benchmark editions (1875, 1880, 1890, 1904) of Alexander Supan's geography textbook for Austrian secondary schools. Using historical-geographical and statistical methods, the study reconstructs Supan's implicit urban classification and traces changes in the number and population of cities in six size groups, from small towns to capital-million-plus cities. Results show a marked concentration of urban growth in the upper tiers of the European urban hierarchy. While big cities remained the most numerous category overall, the relative weight of small, midsize, and big cities declined, and the share of large, largest, and million-plus cities rose strongly by 1904. The number of cities with 100,000 inhabitants or more increased from 71 to 124, and their combined population grew from 20.9 to 44.5 million. The fastest relative growth occurred in cities such as Kiel, Mannheim, Kyiv, and Leipzig, and at the country level in the Netherlands, Germany, and Spain. Read critically, Supan's textbook does not provide a census-equivalent dataset, but it does preserve a rare contemporary geographical interpretation of European urbanization during its most intensive nineteenth-century phase, making it a valuable source for both historical urban studies and the history of geographical knowledge.

1. INTRODUCTION

Investigative approaches on the geographical contribution of Alexander Georg Supan (1847-1920), an outstanding European scientist with Slovenian roots,

have been traced long in the past. Herman Wagner (1840-1929) was among the first who studied A. Supan's creative work and regarded him as "one of the most eminent geographers of this day" (Wagner, 1920, p. 139). Moreover, he highly assessed his works in

physical geography and relentless long service in the capacity of the chief editor (1884-1908) of one of the most prestigious world geographical journals - "Dr. A. Petermanns Mitteilungen aus Justus Perthes' geographischer Anstalt". On the other hand, Bruno Dietrich was the first to analyse the evolution of A. Supan's views on geography as science, views that migrated from the emphasis on its physical-geographical (natural) fundamentals to considerations of principles of regional geography, and, finally, to becoming aware of the value of political-geographical and economic-geographical, in particular, geographical-statistical studies (Dietrich, 1921). Referring to Herman Wagner and Bruno Dietrich's appraisals, W. L. G. Joerg emphasized the essential importance of Alexander Supan's scientific heritage for further development of geography in Germany (Joerg, 1922, p. 443). Alexander Supan's scientific contribution was also studied by Slovenian researchers such as A. Melik (1935, 1936), S. Kranjec (1963), and S. Ilešič (1969). More recently, a complex and multisided insight into A. Supan's geographical heritage was depicted in D. Cigale and D. Ogrin's work (2016), in which case the authors highlighted the scientist's life and creative activity, and its influence on the world's and Slovenian geography (Cigale and Ogrin, 2016). They also outlined Alexander Supan's studies in climatic geography and geography of oceans. Developed in Chernivtsi University, his "Fundamentals of Physical Geography" (1884), repeatedly issued and reissued, was characterized as the author's lifework. D. Cigale and D. Ogrin analysed the scientist's selfless work in the area of regional geography, and highly assessed his "Österreich-Ungarn. Länderkunde von Europa, 1889" (Supan, 1889). A. Supan had also significantly contributed to economic and political geography. This involves his "Die Territoriale Entwicklung der europäischen Kolonien" (Territorial Development of European Colonies: Supan, 1906) and "Leitlinien der allgemeinen politischen geographie. Naturlehre des Staates" (Major Principles of General Political Geography. Natural Philosophy of the States: Supan, 1918), which the author himself regarded to be his most important works (Cigale and Ogrin, 2016, p. 147). Most recently, considering Supan's contribution to political geography through the work "Guidelines to General Political Geography" (Leitlinien der allgemeinen politischen Geographie) and the constructive criticism and additional input brought to Ratzel's Political Geography, Hwang (2011) argued for regarding Supan as "one of the main pioneers of German geopolitics, along with Ratzel and Kjellén" (Hwang, 2011, p. 24). Supan's standing outside the Slovenian- and Ukrainian-language historiography reviewed above is itself well attested: his climatic classifications were engaged directly by British geographers such as Herbertson in constructing the influential "natural regions" framework for

geographical teaching (Simpson and Hulme, 2023), and his works were among those selected for translation into Russian in the deliberate construction of a Russian geographical canon at the turn of the twentieth century (Oldfield and Shaw, 2015).

More broadly, Supan's "Lehrbuch" belongs to a wider and still under-studied genre of nineteenth-century geography textbooks whose catechism-, grammar-, and reader-type structures shaped how geographical knowledge, including population statistics, was transmitted to generations of students (Keighren, 2017); the institutional and disciplinary context of geography teaching within Austria-Hungary specifically, of which Supan's Austrian secondary-school textbook was a product, has likewise become the subject of renewed historiographical attention (Gyuris et al., 2024). Among Supan's most essential work and various directions of scientific activity, we must note his contribution to teaching geography and to the study of urban settlements evolution based on population dynamics. Rudenko (2011), Bilous (2021), Rudenko and Bilous (2022, 2023) emphasized his outstanding geographical-pedagogical work through geography textbooks, written and improved by A. Supan in the course of his whole scientific life (Supan, 1874, 1875, 1880 1890, 1904). And, it is undoubtedly that his «Lehrbuch der Geographie nach den Principien der neueren Wissenschaft für österreichische Mittelschulen» (Textbook of Geography based on the latest principles of science: For secondary school students in Austria), issued for the first time in Ljubljana (Laibach) in 1874 (Supan, 1874), was the author's most essential work.

Despite this growing attention to Supan's biography and his contributions to physical, political, and economic geography, little attention has been given to the extraction and analysis of empirical population data embedded across his successive editions of his Geography textbook for secondary school. This is a significant omission: unlike Supan's specialized monographs, the textbook was revised and republished 11 times over three decades specifically to keep pace with newly available statistics, making its four benchmark editions (1875, 1880, 1890, 1904) a rare longitudinal record of how a leading geographer of the period tracked, classified, and taught European urban growth in near-real time.

It was from 1874 and until 1904 that the textbook had overlived 11 editions with subsequent amendments, and, according to WorldCat, the widest bibliographical database, the book was published 19 times (WorldCat, 2022). In 1911 and 1913, in collaboration with R. Rothaug, A. Supan published the 12th textbook totally amended to meet the requirements of the newest school program (Supan and Rothaug, 1911, 1913). As we now see, A. Supan's textbook in geography was in the process of continuous

development and revision in the course of 40 years of his life, which is an exemplary creative achievement. The content, the structure, the author's vision and exposition of the textbook were and still are of importance on the one hand with regard to formation of school students' geographical worldview and worldview on the whole; on the other hand, the scientist's decade-long work and creative approach are essentially valuable for teachers and scientists serving them as benchmark in the development in growing youth geographical knowledge, skills and abilities, geographical education and culture. A. Supan's geographical heritage undoubtedly requires further and deepened study, analysis and reinterpreting by our contemporaries.

Among the wide range of geographical problems and questions raised and competently exposed by the author, the analysis of growth of the world cities, evaluation of their population, assessment of place and role in economics of countries and continents was in the scientist's continuous focus. Specific attention was given to the European cities.

Research on European urbanization has long shown that the history of cities is best understood through large comparative datasets and attention to urban hierarchy, migration, and changing economic functions (de Vries, 1984(2013); Lawton and Lee, 1989). Long-run studies based on major datasets have reconstructed how European cities gradually formed an increasingly integrated urban system, while also showing that city growth was uneven across places and periods rather than random or uniform (de Vries, 1984(2013); González-Val, 2018). This broader literature makes Supan's textbook especially valuable, because it preserves a late-19th-century contemporary view of that transition at the moment when Europe was urbanizing most rapidly (Puga, 1998; Hohenberg, 2004).

The significance of studying Supan's textbook also extends beyond urban demography alone, because textbooks are increasingly recognized as important carriers of disciplinary knowledge and pedagogical standards rather than merely derivative summaries (Sidaway and Hall, 2017). Historical-geographical research likewise shows that heterogeneous statistical publications, administrative compilations, and reference works can remain highly valuable even when their data are incomplete or methodologically uneven, provided that their construction and limits are made explicit. In that sense, Supan's figures are important not because they replace census-based reconstructions, but because they document how one influential geographer selected, classified, and taught the urban transformation of Europe to contemporaries.

Accordingly, the main goal of this study is threefold: (1) to systematically extract and analyse the population data on European cities recorded across

four benchmark editions (1875, 1880, 1890, 1904) of Alexander Supan's geography textbook for Austrian secondary schools; (2) to situate the resulting picture of late-nineteenth-century European urban growth within the classification schemes of Supan's contemporaries and the rank-size patterns established by present-day historical urban demography; and (3) to assess, on this basis, the enduring value of Supan's geographical-pedagogic legacy for contemporary research on European urbanization.

Historical city population data are widely used to interpret long-run economic development, regional divergence, and changes in urban systems, but their value depends on explicit treatment of source construction and comparability (Buringh, 2021). Recent historical-demographic work has emphasized the need to critically assess inherited city estimates, document missing observations, and clarify inclusion criteria, because urban datasets often combine census counts, indirect estimates, and later reconstructions (Buringh, 2021; Cesaretti et al., 2016). Overall, Supan's textbook editions should be best understood not as a neutral mirror of European urbanization, but as a consistent late-19th-century pedagogical-statistical representation of how European urban growth, hierarchy, and concentration were observed and communicated at the time. Thus, the present study can be positioned within broader work on European urbanization, which has analysed city growth through comparative country studies, long-run urban systems, and the historical geography of cities (Lawton and Lee, 1989, de Vries, 1984 (2013); Hohenberg, 2004).

2. THEORY AND METHODOLOGY

The cognition of the dynamics of population in European cities in the last quarter of the 19th century bases on historical-geographical and statistical methods of research, in particular, the method of historical-geographical junctures. The methods served as a foundation in the analysis of the parameters that characterize the quantity, the number of people (population number) inhabiting European cities as presented in Alexander Supan's "Lehrbuch der Geographie nach den Principien der neueren Wissenschaft für österreichische Mittelschulen und verwandte Lehranstalten sowie zum Selbstunterrichte" (Textbook in geography exposed according to principles of present-day science for Austrian secondary schools and similar educational establishments and for self-education), in particular, its second (1875), fourth (1880), seventh (1890) and eleventh (1904) editions (Supan, 1875, 1880, 1890, 1904).

In the second edition of his textbook (1875) Alexander Supan characterized the number of people in 315 cities of Europe; in 1880 – 285 cities; in 1890 – 311; and in 1904 – 220. The most important and known

cities were scrupulously analysed by the author in the course of the 30-year period of his study, while less known cities, whose role in the social growth of the country was of little significance, were often overlooked. Overall, starting from the analysis of 315 cities of Europe in 1875, A. Supan came to finish with 220 cities in 1904. Such reduction in the number of cities under analysis in 1904, almost 1.4 times less compared to 1875, was, beside all other things, connected with the extensive growth of population in the groups of big, large and the largest cities, while the number of previously evaluated small and midsize cities significantly reduced (see P. Marschalck, 1984; J. Reulecke, 1985; H. Lefebvre, 1972, etc.).

Hence, the question of city classification by number of population used by researchers at the end of the 19th and the beginning of the 20th centuries becomes methodically important. We know that scientists at that time had not unanimously agreed on a certain classification. In particular, H.-J. Teuteberg in his analysis of explosion in population number in the 19th century and its consequences to Germany considered big cities to be those having over 100,000 inhabitants (H.-J. Teuteberg, 1991, p. 69), which was consistent with W.R. Krabbe's (1989) opinion. According to E.E. Lampard, big cities were those with over 100,000 people in the time window between 1900 and 1950 (Lampard, 2017). At the same time, V. Pokrovskii regarded big cities to be those that had 1 million people and more, which were only 17 in the world in 1897 (Pokrovskii, 1897, p. 4). Another interesting view on classification was O. I. Voeikov's assertion that the "true city" is the one inhabited by the minimum of 20 thousand people (Voeikov, 1906).

The most detailed classification of cities in the European part of Russia with regard to number of population was presented at the beginning of the 20th century by V. P. Semenov-Tian-Shansky (Semenov-Tian-Shansky, 1910, pp. 195-201) who distinguished between the cities as follows: 1. small towns (1-5 thousand people); 2. small cities (5-10 thousand people); 3. midsize cities (10-40 thousand people); 4. big cities (40-100 thousand people); 5. large cities (100 thousand - 1 million people); and 6. capital cities (over 1 million people). Korduba's approach to classification of cities by the number of population was very close to the aforementioned authors (Korduba, 1912), aligned with that suggested by the authors of the "Andrees Allgemeiner Handatlas" (1899).

To continue our analysis, we have henceforward grouped the then-recent European cities as follows:

1. Small cities (up to 20 thousand people);
2. Midsize cities (20-40 thousand people);
3. Big cities (40-100 thousand people);
4. Large cities (100-500 thousand people);
5. Largest cities (500-1000 thousand people);

6. Capital-million-plus cities (over 1 million people).

Population figures throughout this study are reported as they appear in Supan's four textbook editions, without retrospective harmonization against national census returns. Supan compiled these figures from various national statistical sources of uneven quality and periodicity, and several cities have missing values in one or more editions (Table 2); such gaps are retained as missing, rather than interpolated. The resulting dataset should accordingly be read as an assessment of how a leading contemporary geographer perceived and taught European urban growth, rather than as an independently verified demographic record; where relevant, we note points of comparison with modern historical urban-population compilations such as those of de Vries (1984(2013)), Bairoch et al. (1988), and the globally spatialized historical population dataset of Reba et al. (2016). In extracting quantitative content from a source that was not originally designed as a statistical instrument, our approach parallels recent efforts to mine non-census administrative and pedagogical sources for historical population microdata, such as Kabadayı and Erünel's (2024) curation of nineteenth-century Ottoman population registers.

Because 19th-century and early-20th-century scholars used different thresholds to define urban places, the adoption of a single harmonized classification is a practical analytical choice rather than a historically original one (Bairoch and Goertz, 1986). Comparative urban research commonly applies one threshold or one standardized typology across heterogeneous sources because this is often the least problematic way to compare places across countries and dates, even though some bias remains, especially for smaller cities (Bairoch and Goertz, 1986). This caution is important here because Supan did not analyze the same number of cities in every edition, moving from 315 cities in 1875 to 220 in 1904, and because less prominent cities were more likely to disappear from coverage over time. The resulting database therefore supports robust analysis of broad urban hierarchy and major-city growth, but it is less suitable for precise measurement of small-city change or for direct comparison with modern census-based datasets without additional harmonization (Buringh, 2021).

3. RESULTS AND DISCUSSION

The distribution of groups (classes) of European cities by their number of population in the last quarter of the 19th century is presented in Table 1. Apparently, the sharp increase in the number of population in large, the largest and capital cities (almost 2.5 times) parallel with the significant decline in the same in small, midsize and big cities (1.7 times) was the major trend of development within the studied period.

Table 1 shows that the dominant structural change in Supan's sample was not simple urban growth, but a reweighting of the European city system toward larger size classes. Big cities remained the largest category across the whole period in cumulative terms, yet their share fell sharply by 1904, while the proportion of large cities rose from 20.2% to 47.0%, and the shares of the largest and million-plus cities also increased. This is a classic signature of increasing urban concentration

within a hierarchy, a pattern commonly analysed through rank-size relationships in European urban history (de Vries, 1984(2013).

In broader terms, data suggests that late nineteenth-century Europe was channelling a growing share of urban population into upper-order centres, consistent with long-run interpretations of agglomeration under industrialization (Puga, 1998; Hohenberg, 2004).

Table 1. Grouping of European cities by number of population.

City groups	Years, number of cities (%)				
	1875	1880	1890	1904	1875-1904
Small (up to 20 thousand people)	21.1	13.7	12.7	9.0	14.7
Midsized (20-40 thousand people)	19.2	18.4	20.4	14.2	18.4
Big (40-100 thousand people)	37.0	39.1	34.4	21.3	33.8
Large (100-500 thousand people)	20.2	25.6	29.6	47.0	29.2
Largest (500-1000 thousand people)	1.9	1.8	1.6	5.7	2.5
Capital-million plus (over 1 million people)	0.6	1.4	1.3	2.8	1.4
Total cities (units)	315	285	311	220	283

Source: Supan, 1875, 1880, 1890, 1904.

This pattern of disproportionate growth concentrated in the largest size classes at the expense of small and midsized cities' relative share corresponds to what the rank-size and urban-primacy literature describes as increasing concentration in a European urban hierarchy (González-Val, 2018), a dynamic documented specifically for the Austro-Hungarian urban system in the same period by Fassmann (1986, 1989). Framed this way, Supan's four editions capture, in effect, a snapshot sequence of the upper tail of the European city-size distribution becoming steadily more populated relative to the lower tiers, consistent with broader nineteenth-century urbanization trends documented in modern reconstructions of European urban population (de Vries, 1984(2013); Bairoch et al., 1988; Zinkina et al., 2016) and in globally comprehensive spatial datasets of historical city populations (Reba et al., 2016).

The concentration of growth in large and very large cities observed in Supan's datasets is consistent with broader interpretations of European urban development. Long-run work on European city systems emphasizes that urbanization involved both continuity and increasing concentration, with industrialization producing major gains in agglomeration through transport improvements and increasing returns in manufacturing and distribution (Hohenberg, 2004). Comparative urban research also shows that rank-size patterns and the structure of the urban hierarchy are central to understanding how cities of different sizes changed over time (de Vries, 1984(2013); González-Val, 2018).

Supan's results therefore fit well with the view that late-19th-century Europe was not simply adding

more towns, but was concentrating an increasing share of population in upper tiers of the urban system.

The dynamics of the number of inhabitants in the biggest European cities in the period 1875-1904 as assessed by A. Supan is presented in Table 2, where the rates of changes in the number of cities with 100,000 people and more as of 1904 have been traced. Thus, the number of urban population grew by 5.8% in 1880 in the whole region compared to 1875; by 23.8% in 1890 compared to 1880; by 36.5% in 1904 compared to 1890, and it by 78.7% in the biggest European cities in 1904 compared to 1875. The highest rates of growth of the number of urban people in the last quarter of the 19th century were observed in Kiel (293.5%), Mannheim (261.5%), Kyiv (257.1%), Leipzig (240.3%), Dortmund (236.4%), Frankfurt (217.6%), Christiania (215.1%), Nuremberg (214.5%), Dusseldorf (210.1%), and Halle (201.9%). These cities altogether represented 9.4% out of all biggest cities of Europe. About 13.7% of the cities showed the rates of growth within 150-200% (in this cohort we note Munich, Barcelona, Budapest, Berlin, Szczecin, Riga, Hanover, Rotterdam, Dresden, and Prague). The fifth part of the biggest European cities showed that the number of urban population grew within 100-150% (e.g., Athens, Basle, Krakow, Odessa, Magdeburg, Valencia, Hamburg, Hague, Kassel, Antwerp). One third of the biggest European cities recorded increases in population of 50-100%, namely, Bremen, Kharkiv, Brussels, Strasbourg, Rome, Königsberg, Madrid, Lisbon, Constantinople, Edinburgh. And, finally, nearly a quarter of the biggest cities in the region (23.1%) manifested a growth within 0-50% (e.g., Paris, Glasgow, Brno, Bucharest, London, Turin, Liverpool, Dublin, Naples, and Kishinev).

Table 2 demonstrates that growth among Europe's biggest cities was both strong and uneven. The combined population of the 100,000-plus group rose from 24.9 million to 44.5 million, but the most rapid expansion was concentrated in a subset of fast-rising cities such as Kiel, Mannheim, Kyiv, Leipzig, Dortmund, and Frankfurt, whereas already established urban giants such as London and Paris grew more slowly. This unevenness fits comparative research showing that

nineteenth-century urban transition was closely tied to migration, employment restructuring, and the differential pace of economic change across cities and regions (Lawton and Lee, 1989; Bocquier and Brée, 2018). Data therefore captures not one uniform metropolitan boom, but a differentiated urban transition in which rapidly industrializing and administratively rising centres often outpaced already dominant capitals (González-Val, 2018, Pfister, 2020).

Table 2. Dynamics of the number of population in the biggest European cities in the period 1875-1904.

No.	City	Years, urban population (no. of people)				1904 compared to 1875, %
		1875	1880	1890	1904	
1	Constantinople	600,000	600,000	870,000	940,000	56.67
2	Adrianople	100,000	150,000	-	-	-
3	Thessaloniki	80,000	80,000	80,000	100,000	25.00
4	Bucharest	200,000	220,000	220,000	280,000	40.00
5	Athens	44,000	40,000	85,000	110,000	150.00
6	Turin	212,000	190,000	230,000	280,000	32.08
7	Genoa	130,000	130,000	140,000	160,000	23.08
8	Milan	262,000	200,000	300,000	460,000	75.57
9	Venice	128,000	130,000	130,000	150,000	17.19
10	Bologna	116,000	90,000	100,000	120,000	3.45
11	Florence	167,000	170,000	130,000	160,000	-4.19
12	Rome	244,000	230,000	270,000	430,000	76.23
13	Naples	448,000	420,000	460,000	490,000	9.38
14	Palermo	219,000	190,000	210,000	210,000	-4.11
15	Messina	111,000	70,000	80,000	-	-
16	Catania	84,000	80,000	100,000	140,000	66.67
17	Madrid	332,000	330,000	390,000	540,000	62.65
18	Barcelona	180,000	210,000	240,000	530,000	194.44
19	Valencia	87,000	150,000	140,000	210,000	141.38
20	Murcia	-	-	90,000	110,000	-
21	Seville	81,000	120,000	130,000	150,000	85.19
22	Malaga	92,000	100,000	110,000	130,000	41.30
23	Lisbon	224,000	220,000	240,000	360,000	60.71
24	Porto	89,000	90,000	110,000	170,000	91.01
25	London	3,250,000	3,500,000	4,200,000	4,500,000	38.46
26	Brighton	90,000	100,000	120,000	-	-
27	Portsmouth	113,000	120,000	140,000	190,000	68.14
28	Cardiff	-	-	-	160,000	-
29	Bristol	182,000	200,000	220,000	330,000	81.32
30	Manchester	350,000	360,000	380,000	760,000	117.14
31	Bolton	82,000	80,000	100,000	-	-
32	Salford	124,000	140,000	220,000	-	-
33	Preston	85,000	80,000	100,000	-	-
34	Nottingham	86,000	90,000	220,000	240,000	179.07
35	Leeds	259,000	290,000	350,000	430,000	66.02
36	Bradford	145,000	170,000	220,000	-	-
37	Leicester	95,000	110,000	140,000	-	-
38	Birmingham	343,000	370,000	440,000	520,000	51.60
39	Sheffield	240,000	270,000	320,000	380,000	58.33
40	Stoke-on-Trent	130,000	130,000	-	-	-
41	Liverpool	493,000	520,000	590,000	680,000	37.93
42	Hull	121,000	140,000	200,000	240,000	98.35
43	Newcastle	128,000	140,000	160,000	210,000	64.06
44	Sunderland	98,000	110,000	130,000	-	-
45	Edinburgh	212,000	210,000	260,000	320,000	50.94
46	Glasgow	508,000	540,000	520,000	760,000	49.61
47	Dundee	119,000	140,000	140,000	160,000	34.45
48	Aberdeen	88,000	100,000	100,000	150,000	70.45
49	Dublin	314,000	310,000	250,000	370,000	17.83
50	Belfast	174,000	170,000	210,000	350,000	101.15

**European Urban Population Dynamics, 1875-1904: Alexander Supan's Geography Textbook as a
Historical-Geographical Source**

Journal Settlements and Spatial Planning, vol. 17, no. 1 (2026) 49-62

No.	City	Years, urban population (no. of people)				1904 compared to 1875, %
		1875	1880	1890	1904	
51	Stockholm	147,000	150,000	230,000	300,000	104.08
52	Gothenburg	61,000	60,000	100,000	130,000	113.11
53	Christiania	73,000	70,000	130,000	230,000	215.07
54	Copenhagen	190,000	230,000	230,000	480,000	152.63
55	Moscow	612,000	600,000	750,000	1000,000	63.40
56	Tula	58,000	60,000	60,000	110,000	89.66
57	Kharkov	87,000	90,000	170,000	170,000	95.40
58	Kyiv	70,000	70,000	170,000	250,000	257.14
59	Petersburg	668,000	670,000	860,000	1300,000	94.61
60	Riga	102,000	100,000	180,000	280,000	174.51
61	Vilno	79,000	80,000	100,000	160,000	102.53
62	Warsaw	251,000	320,000	450,000	640,000	154.98
63	Lodz	-	-	110,000	310,000	-
64	Kishinev	103,000	100,000	120,000	110,000	6.80
65	Odessa	162,000	140,000	240,000	400,000	146.91
66	Yekaterinoslav	-	-	-	120,000	-
67	Rostov	-	-	60,000	120,000	-
68	Kazan	78,000	80,000	140,000	130,000	66.67
69	Astrakhan	47,000	50,000	70,000	110,000	134.04
70	Saratov	93,000	90,000	120,000	140,000	50.54
71	Königsberg	112,000	120,000	151,000	189,000	68.75
72	Danzig	93,000	100,000	115,000	141,000	51.61
73	Posen	56,000	60,000	68,000	117,000	108.93
74	Berlin	826,000	1,000,000	1,315,000	2,300,000	178.45
75	Szczecin	76,000	80,000	100,000	211,000	177.63
76	Breslau	208,000	240,000	300,000	428,000	105.77
77	Magdeburg	114,000	120,000	160,000	280,000	145.61
78	Halle	52,000	60,000	82,000	157,000	201.92
79	Kiel	31,000	40,000	52,000	122,000	293.55
80	Altena	74,000	80,000	105,000	162,000	118.92
81	Hanover	105,000	110,000	140,000	286,000	172.38
82	Dortmund	44,000	60,000	78,000	148,000	236.36
83	Frankfurt	91,000	100,000	155,000	289,000	217.58
84	Cassel	46,000	50,000	64,000	106,000	130.43
85	Wuppertal	145,000	170,000	210,000	299,000	106.21
86	Cologne	129,000	130,000	161,000	373,000	189.15
87	Dusseldorf	69,000	80,000	115,000	214,000	210.14
88	Aachen	74,000	80,000	95,000	135,000	82.43
89	Krefeld	57,000	60,000	90,000	107,000	87.72
90	Dresden	177,000	200,000	246,000	481,000	171.75
91	Leipzig	134,000	130,000	170,000	456,000	240.30
92	Chemnitz	75,000	80,000	110,000	207,000	176.00
93	Braunschweig	-	70,000	85,000	128,000	-
94	Hamburg	304,000	350,000	306,000	706,000	132.24
95	Bremen	82,000	100,000	118,000	163,000	98.78
96	Munich	169,000	190,000	260,000	500,000	195.86
97	Nuremberg	83,000	90,000	115,000	261,000	214.46
98	Stuttgart	84,000	110,000	126,000	177,000	110.71
99	Mannheim	39,000	50,000	61,000	141,000	261.54
100	Strasbourg	85,000	90,000	112,000	151,000	77.65
101	The Hague	90,000	100,000	150,000	210,000	133.33
102	Amsterdam	-	290,000	390,000	520,000	-
103	Rotterdam	116,000	130,000	190,000	320,000	175.86
104	Utrecht	59,000	60,000	82,000	100,000	69.49
105	Ghent	121,000	130,000	150,000	160,000	32.23
106	Brussels	314,000	180,000	180,000	560,000	78.34
107	Antwerp	126,000	140,000	210,000	270,000	114.29
108	Liege	106,000	120,000	140,000	160,000	50.94
109	Paris	1,800,000	1,800,000	2,300,000	2,700,000	50.00
110	Lille	158,000	140,000	190,000	210,000	32.91
111	Roubaix	76,000	70,000	100,000	220,000	189.47
112	Rouen	102,000	100,000	110,000	120,000	17.65

No.	City	Years, urban population (no. of people)				1904 compared to 1875, %
		1875	1880	1890	1904	
113	Le Havre	86,000	90,000	110,000	130,000	51.16
114	Nantes	118,000	120,000	130,000	130,000	10.17
115	Bordeaux	194,000	190,000	240,000	260,000	34.02
116	Toulouse	125,000	110,000	150,000	150,000	20.00
117	Marseille	317,000	240,000	380,000	490,000	54.57
118	Toulon	69,000	60,000	70,000	100,000	44.93
119	Nice	52,000	50,000	80,000	105,000	101.92
120	Nancy	53,000	50,000	80,000	100,000	88.68
121	Reims	72,000	70,000	100,000	110,000	52.78
122	Lyon	323,000	300,000	400,000	460,000	42.41
123	Saint-Etienne	11,000	120,000	120,000	150,000	1263.64
124	Zurich	-	20,000	30,000	151,000	-
125	Basel	44,000	40,000	70,000	110,000	150.00
126	Vienna	833,000	1000,000	1100,000	1675,000	101.08
127	Graz	81,000	80,000	105,000	138,000	70.37
128	Trieste	109,000	70,000	158,000	171,000	56.88
129	Prague	157,000	190,000	185,000	396,000	152.23
130	Brno	73,000	70,000	86,000	109,000	49.32
131	Krakow	49,000	50,000	73,000	121,000	146.94
132	Lemberg	87,000	90,000	120,000	160,000	83.91
133	Budapest	254,000	250,000	430,000	716,000	181.89
134	Szeged	70,000	70,000	74,000	100,000	42.86
TOTAL		24,914,000	26,350,000	32,623,000	44,527,000	78.72

Source: Supan, 1875, 1880, 1890, 1904; Historical Politics EurAtlas, 1900.

It is of no less importance to trace the dynamics of changes in the number of population within the category of large, the largest, and capital-million plus cities in different countries (Table 3).

Table 3. Total number of cities and population in the cities of Europe inhabited by 100,000 people and more.

Countries	Type	Years				1904 compared to 1875 (%)
		1875	1880	1890	1904	
Turkey	a.	2	2	1	1	-50.00
	b.	700,000	750,000	870,000	940,000	+34.29
Greece	a.	-	-	-	2	-
	b.	-	-	-	210,000	-
Romania	a.	1	1	1	1	0.00
	b.	200,000	220,000	220,000	280,000	+40.00
Italy	a.	10	8	10	10	0.00
	b.	2,037,000	1,660,000	2,070,000	2,640,000	+29.60
Spain	a.	2	5	5	6	+200.00
	b.	512,000	910,000	1,010,000	1,670,000	+226.17
Portugal	a.	1	1	2	2	+100.00
	b.	224,000	220,000	350,000	530,000	+136.61
Great Britain	a.	18	22	24	18	0.00
	b.	7,205,000	8,140,000	9,730,000	10,750,000	+49.20
Sweden	a.	1	1	2	2	+100.00
	b.	147,000	150,000	330,000	430,000	+192.52
Norway	a.	-	-	1	1	-
	b.	-	-	130,000	230,000	-
Denmark	a.	1	1	1	1	0.00
	b.	190,000	230,000	230,000	480,000	+152.63
Russia	a.	6	6	12	16	+166.67
	b.	1,898,000	1,830,000	3,410,000	5,350,000	+181.88
Germany	a.	11	15	21	30	+172.73
	b.	2,423,000	3,170,000	4,590,000	9,435,000	+289.39
Netherlands	a.	1	3	3	4	+300.00
	b.	116,000	520,000	730,000	1,150,000	+891.38
Belgium	a.	4	4	4	4	0.00
	b.	667,000	570,000	680,000	1,150,000	+72.41
France	a.	9	9	12	15	+66.67

	b.	3,243,000	3,120,000	4,330,000	5,435,000	+67.59
Switzerland	a.	-	-	-	2	-
	b.	-	-	-	261,000	-
Austro-Hungary	a.	4	3	6	9	+125.00
	b.	1,353,000	1,440,000	2,098,000	3,586,000	+165.04
TOTAL	a.	71	81	105	124	+74.65
	b.	20,915,000	22,930,000	30,778,000	44,527,000	+112.90

*** a. Number of cities (units); b. Number of population
Source: Supan, 1875, 1880, 1890, 1904.

According to data presented by Alexander Supan, in 1875, there were 71 cities in Europe inhabited by 100,000 people and more (Great Britain – 18, Germany – 11, Italy – 10, France – 9, Russia – 6). It was no later than 1880 that there were 81 such cities in the European countries (Great Britain – 22, Germany – 15, France – 9). In 1890, the number of cities inhabited by 100 thousand people and more grew to 105, and in 1904 up to 124. Overall, this group of cities grew 1.75 times in the period 1875-1904, while the number of people inhabiting them grew from 20.9 million in 1875 to 22.9 million in 1880, 30.8 million in 1890, and 44.5 million in 1904, that is, 2.13 times. The most dramatic growth in the number of cities and inhabitants within the studied period was observed in the Netherlands, Germany, and Spain. Significantly less growth was recorded in the case of Turkey, Italy, Romania, Great Britain, and Denmark. It is undoubtedly that the materials presented by Alexander Supan characterized in the first place the trends in the development of industry and trade in single countries and in Europe on the whole. The uneven geography of growth in Supan's data also agrees with wider literature showing that urban expansion reflected migration, employment change, and national economic integration rather than a single uniform mechanism (Lawton and Lee, 1989). For the 19th-century France, migration rather than demographic transition appears to have driven urban transition, and its migration component was especially sensitive to employment structure and political-economic instability (Bocquier and Brée, 2018). For Germany, urban population is treated as a valuable indicator of economic development and spatial economic structure, with urbanization beginning to shift from stagnation to growth around 1800 and regional rates converging during early industrialization (Pfister, 2020). These comparisons help explain why Supan's records especially strong gains in countries such as Germany, the Netherlands, and Spain and in rapidly rising cities such as Kiel, Mannheim, Leipzig, and Kyiv.

Table 3 shifts the analysis from individual cities to national urban systems and shows that absolute leadership and relative dynamism were not the same. Countries like Great Britain, Germany, and France dominated in the number and total population of cities above 100,000 inhabitants, but the fastest proportional expansion occurred in the Netherlands,

Germany, and Spain. This distinction is analytically important because European urbanization has long been understood as a process shaped by national differences in migration, economic integration, and industrial timing rather than by one common continental trajectory (Lawton and Lee, 1989; Pfister, 2020). Table 3 thus shows that Supan's data can be read not only as a list of growing cities, but as evidence for divergent national pathways within a gradually more integrated European urban system (de Vries, 1984(2013)).

Figure 1 shows changes in the number of population in the largest (500-1000 thousand people) and capital-million plus cities of Europe included into this group as of 1875. According to A. Supan, there were only 8 such cities in this part of the world (19, in 1904). London and Paris took the certain leadership within the studied period. Vienna was third in 1875 and third-fourth capital city in 1880 (with Berlin), becoming fourth in 1890 and 1904 giving third place in Europe to Berlin.

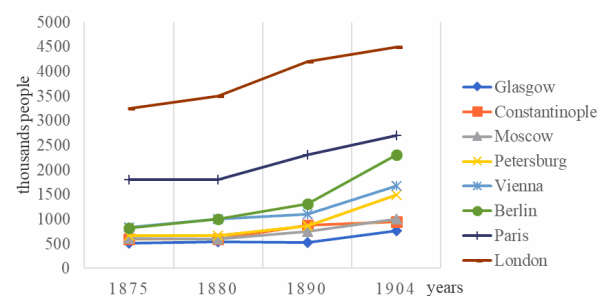


Fig. 1. Dynamics of the number of population in the largest (500-1000 thousand people) and capital-million plus cities of Europe in 1875-1904 (source: Supan, 1875, 1880, 1890, 1904).

Petersburg and Moscow were the fifth and the sixth cities, Constantinople was the seventh, and Glasgow was the eighth. Liverpool and Birmingham should be added to the top ten biggest cities in Europe as of 1880. The latter was substituted by Warsaw in 1890, which, in its turn, was substituted by Budapest in 1904. Thus, according to A. Supan, the biggest European cities at the beginning of the 20th century with regard to number of population (decreasing order) were as follows: 1. London, 2. Paris, 3. Berlin, 4. Vienna, 5. Petersburg, 6. Moscow, 7. Constantinople, 8. Glasgow, 9. Manchester, 10. Budapest, 11. Hamburg, 12. Liverpool, 13. Warsaw, 14. Brussels, 15. Madrid, 16.

Barcelona, 17. Birmingham, 18. Munich, 19. Amsterdam.

Figure 1 highlights both continuity and change at the very top of the European urban hierarchy. London and Paris retained clear primacy throughout the period, while Berlin overtook Vienna and the upper ranks below the top two became more fluid with the rise of Budapest, Manchester, Hamburg, Amsterdam, and Warsaw. This pattern aligns with historical-geographical interpretations that emphasize path dependence and continuity in major capital systems alongside strong industrial-era agglomeration and selective reshuffling below the very top tier (Hohenberg, 2004). The figure therefore illustrates that late nineteenth-century urban growth reinforced metropolitan leadership without producing wholesale instability in the highest ranks of the European city system (González-Val, 2018).

4. CONCLUSIONS

The study of Alexander Supan's geographical contribution, an outstanding European scientist with Slovenian roots is not in its early stage. The scientist's creative activity was almost completely disclosed in the works by Wagner (1920), Dietrich (1921), Hwang (2011), Cigale and Ogrin (2016). We believe that specific attention should be given to A. Supan's geographical-pedagogic publications, in particular, those concerning the development and the changes in the number of population of the European cities. Supan's assessment of the dynamics of the number of population in European cities in the last quarter of the 19th century exposed in his "Textbook in Geography based on the principles of present-day science" (issued in 1875, 1880, 1890, and 1904) offers a generalized but at the same time detailed picture of the development of urban territories within this broad part of the world.

By systematically extracting and analyzing the city-population figures from the 1875, 1880, 1890, and 1904 editions, the study fulfills the first part of its threefold aim and transforms a dispersed educational source into a usable dataset for historical-geographical analysis. Big and large cities together with midsize cities accounted for nearly four-fifths of all European cities Supan analysed, underscoring how much of the period's urban dynamism was concentrated outside the small-town tier (Table 1). At the country level, Great Britain, Germany, and France led Europe in absolute numbers of cities and inhabitants in the 100,000-plus category throughout 1875-1904, even as the fastest relative growth occurred elsewhere, in the Netherlands, Germany, and Spain (Table 3). Overall, the number of European cities with 100,000 or more inhabitants grew from 71 to 124 over the period, and their combined population from 20.9 to 44.5 million; the list of Europe's five largest cities remained stable throughout

the period (London, Paris, Berlin, Vienna, and St. Petersburg, in slightly shifting order), a stability at the very top of the hierarchy that contrasts with the volatility further down the rank-size distribution documented above (cf. Fassmann, 1986, 1989; González-Val, 2018). Taken together, these findings confirm that the last quarter of the 19th century was a period of pronounced concentration in the European urban hierarchy: growth was fastest among the biggest cities (up 78.7%, or 0.79 times, between 1875 and 1904), most pronounced in rapidly industrializing or administratively rising centres such as Kiel, Mannheim, and Kyiv, and comparatively modest among already-large, established capitals such as Paris and London. Thus, the study also fulfills its second objective by demonstrating that Supan's picture of European city growth corresponds to a process of increasing urban concentration.

Finally, the study answers its third objective by demonstrating the enduring value of Supan's geographical-pedagogical legacy for present-day research. Supan's data was produced for pedagogical rather than statistical purposes, yet it preserves a rare near-contemporary interpretation of European urban growth and thus constitutes an underused source for the historical geography of urbanization. Their value lies not in replacing standardized census-based reconstructions, but in documenting how a major geographer selected, organized, and taught the urban transformation of Europe. These findings should be read with the limitations of the underlying source in mind: Supan's figures were compiled from national statistical returns of uneven quality and periodicity rather than a single standardized census, coverage of smaller cities narrows across editions, and several cities carry missing values in one or more years. Future work cross-checking Supan's figures against modern historical urban-population compilations, such as those of de Vries (1984(2013)) and Bairoch et al. (1988), would help establish how closely a contemporary geographer's teaching materials tracked the underlying demographic reality.

This study shows that Supan's geography textbook is more than a pedagogical artefact: it is a structured contemporary record of how late-19th-century European urbanization was observed, classified, and communicated. The main findings align with broader scholarship showing that European urban development combined long-term continuity with marked concentration in larger cities, especially under the effects of industrialization, migration, and the growing integration of urban systems (Hohenberg, 2004; Bocquier and Brée, 2018). Supan's evidence is therefore historically valuable not because it offers a definitive census-equivalent dataset, but because it captures a near-contemporary geographical interpretation of a major urban transition, one that can

now be compared systematically with modern databases and models of European city growth (Gravier and Barthelemy, 2024). The analytical value of historical urban datasets often lies in structured comparison rather than absolute precision. Major reconstructions of European urban history rely on harmonized definitions, interpolation of missing observations, and critical comparison of heterogeneous country sources (González-Val, 2018, (Dincecco and Onorato, 2016). Other work on historical city populations likewise depends on secondary and tertiary compilations rather than newly generated primary counts, yet still yields robust comparative insight into long-run urban systems (Cesaretti et al., 2016). That is why Supan's uneven coverage and missing entries should be treated as a limitation, but not as a reason to dismiss the source altogether. Future work should therefore compare Supan's figures systematically with later historical urban-population compilations in order to determine how closely a contemporary geographical textbook tracked underlying demographic reality. In conclusion, Supan's "Textbook in Geography based on the principles of present-day science" undoubtedly represents an invaluable source of scientific geographical analysis and synthesis and a weighty geographical-pedagogic heritage that can and should be widely integrated into present-day scientific research.

REFERENCES

- Andrees Allgemeiner Handatlas** in 126 Haupt- und 137 Nebenkarten nebst vollständigem alphabetischem Namenverzeichnis. Vierte, völlig neubearbeitete und vermehrte Auflage. (Andree's General Hand Atlas, containing 126 principal maps and 137 supplementary maps, with a complete alphabetical index of place names. Fourth edition, thoroughly revised and enlarged). Herausgegeben von A.Scobel. (1899), Bielefeld und Leipzig. Verlag von Velhagen & Klasing. (Edited by A. Scobel. (1899), Bielefeld and Leipzig. Published by Velhagen & Klasing) [in German]
- Bairoch P., Goertz G.** (1986), Factors of Urbanisation in the Nineteenth Century Developed Countries: A Descriptive and Econometric Analysis. *Urban Studies* 23, 285-305. DOI: <http://dx.doi.org/10.1080/00420988620080351>
- Bairoch P., Batou J., Chèvre P.** (1988), La population des villes européennes, 800-1850: banque de données et analyse sommaire des résultats (The population of Europe cities: data bank and short summary of results). Genève: Droz [in French]
- Bilous V.** (2021), The main phases of Oleksandr Zupan's development as a geographer and teacher. *Journal of Education, Health and Sport*. 11(08), 438-444. DOI: 10.12775/JEHS.2021.11.08.049
- Bocquier P., Brée S.** (2018), A regional perspective on the economic determinants of urban transition in 19th-century France. *Demographic Research*, 38, 1535-1576. DOI: <https://doi.org/10.4054/DemRes.2018.38.50>
- Buringh E.** (2021), The Population of European Cities from 700 to 2000. *Social and Economic History. Research Data Journal for the Humanities and Social Sciences* 6, 1-18. DOI: <https://www.doi.org/10.17026/dans-xzy-u62q>
- Cesaretti R., Lobo J., Bettencourt L. M. A., Ortman S. G., Smith M. E.** (2016), Population-Area Relationship for Medieval European Cities. *PLoS ONE* 11(10), e0162678. DOI: 10.1371/journal.pone.0162678
- Cigale D., Ogrin D.** (2016), Alexander Georg Supan – v Sloveniji spregledan geograf slovenskega rodu. (Alexander Georg Supan – a geographer of Slovene descent, largely forgotten in Slovenia). *Dela*, 45, 135-163. DOI: <https://doi.org/10.4312/dela.45.8.135-163>. [in Slovenian]
- de Vries J.** (1984), *European Urbanization, 1500-1800*. E-book version in 2013. Cambridge, MA: Harvard University Press. DOI: <https://doi.org/10.4324/9780203716526>
- Dietrich B.** (1921), Alexander Supan. *Geographische Zeitschrift*, 27(9/10), 193-198. URL: <http://www.jstor.org/stable/27810768>. Accessed on 27.01.2025
- Dincecco M., Onorato M. G.** (2016), Military conflict and the rise of urban Europe. *Journal of Economic Growth* 21, 259-282. DOI: <https://doi.org/10.1007/s10887-016-9129-4>
- Fassmann H.** (1989), Timing and pattern of urban population growth in the Austrian-Hungarian monarchy 1857-1910: a dynamic rank-size approach. In: Lawton R., Lee R. (eds.), *Urban Population Development in Western Europe from the Late Eighteenth to the Early Twentieth Century*. Liverpool: Liverpool University Press. URL: https://www.ssoar.info/ssoar/bitstream/handle/document/3467/ssoar-hsr-1986-no_38-famann-city-size_distribution_in_the_austrian-hungarian.pdf?sequence=1&lnkname=ssoar-hsr-1986-no_38-famann-city-size_distribution_in_the_austrian-hungarian.pdf
- Fassmann H.** (1986), City-size distribution in the Austrian-Hungarian monarchy 1857-1910: a rank-size approach. *Historical Social Research*, 11(2), 3-24. <https://doi.org/10.12759/hsr.11.1986.2.3-24>
- González-Val R.** (2018), Historical urban growth in Europe (1300-1800). *Papers in Regional Science*, 98(2), 1115-1137. DOI: <https://doi.org/10.1111/pirs.12365>
- Gravier J., Barthelemy M.** (2024), A typology of activities over a century of urban growth. *Nature Cities* 1, 567-575. DOI: <https://doi.org/10.1038/s44284-024-00108-7>
- Gyuris F., Jobbitt S., Győri R.** (2024), Hungarian geography between 1870 and 1920: negotiating empire and coloniality on the global semiperiphery. *Annals of the American Association of Geographers*, 114(4), 652-670. DOI: <https://doi.org/10.1080/24694452.2023.2292808>

- Historical Politics Euratlas** (1900), Political Map and Database of the European Cultural Area in the Exact. Year 1900. URL: <https://hpolitics.euratlas.net/1900> (accessed 27.01.2025)
- Hohenberg P. M.** (2004), Chapter 67 - The Historical Geography of European Cities: An Interpretive Essay. Handbook of Regional and Urban Economics, 4, 3021-3052. DOI: [https://doi.org/10.1016/S1574-0080\(04\)80024-5](https://doi.org/10.1016/S1574-0080(04)80024-5)
- Hwang K.** (2011), Power in Alexander Supan's Guidelines to General Political Geography (1918/1920). Przegląd geopolityczny, 3, 23-44. URL: https://przegląd.org/wp-content/uploads/2015/01/Hwang_Karl_PG_t.3.pdf (accessed 28.01.2025)
- Ilešič S.** (1969), Geografija. (Geography). In: Modic, R. (ed.). Petdeset let slovenske univerze v Ljubljani 1919–1969. (Fifty Years of the Slovenian University in Ljubljana 1919–1969). Ljubljana, Univerza, 231–242. [in Slovenian]
- Joerg W. L. G.** (1922), Recent Geographical Work in Europe. The Geographical Review. 12, 3, 431-484. URL: <https://babel.hathitrust.org/cgi/pt?id=njp.32101057766832&seq=19>
- Kabadayı M. E., Erüenal E.** (2024), A nineteenth-century urban Ottoman population micro dataset: data extraction and relational database curation from the 1840s pre-census Bursa population registers. Scientific Data, 11, 570. DOI: <https://doi.org/10.1038/s41597-024-03381-2>
- Keighren I. M.** (2017), Catechisms, grammars, and readers: towards a generic history of geography textbooks. Landscape Surgery [research blog], Royal Holloway, University of London, 5 June 2017. URL: <https://landscapesurgery.wordpress.com/2017/06/05/towards-a-generic-history-of-geography-textbooks/>
- Korduba M.** (1912), Heohrafichnyi atlas (Geographical Atlas) (containing 24 main and 11 supplementary maps). Kolomyia: Halytska nakladnia Ya. Oreshtaina. [in Ukrainian]
- Krabbe W. R.** (1989), Die deutsche Stadt im 19. und 20. Jahrhundert: Eine Einführung. Göttingen: Vandenhoeck und Ruprecht. (The German City in the 19th and 20th Centuries: An Introduction. Göttingen: Vandenhoeck & Ruprecht). [in German]
- Kranjec S.** (1963), Aleksander Supan, nemški geograf slovenskega rodu. (Aleksander Supan – a German geographer of Slovene origin) Geografski vestnik, 35, 65-69. URL: https://zgs.zrc-sazu.si/Portals/8/Geografski_vestnik/Pred1999/GV_3501_065_080.pdf
- Lampard E. E.** (2017), City. Encyclopaedia Britannica. URL: <https://www.britannica.com/topic/city>. Accessed on 29.01.2025.
- Lawton R., Lee W. R.** (1989), Urban population development in Western Europe from the late-eighteenth to the early-twentieth century. Liverpool University Press. ISBN: 0853234256
- Lefebvre H.** (1972), Die Revolution der Städte (The Revolution of the Cities) [a. d. Franz]. München: List. [in German]
- Marschalck P.** (1984), Bevölkerungsgeschichte Deutschlands im 19. und 20. Jahrhundert. (Population History of Germany during the 19th and 20th Centuries) Frankfurt/M. [in German]
- Melik A.** (1935), Slovenija, geografski opis. 1. splošni del, 1. zvezek. (Slovenia: geographical description. 1, General Part) Ljubljana, Slovenska matica
- Melik A.** (1936), Slovenija, geografski opis. 1. splošni del, 2. zvezek. (Slovenia: geographical description. 1, General Part, volume 2). Ljubljana, Slovenska matica
- Oldfield J. D., Shaw D. J. B.** (2015), A Russian geographical tradition? The contested canon of Russian and Soviet geography, 1884–1953. Journal of Historical Geography, 49, 75-84. DOI: <https://doi.org/10.1016/j.jhg.2015.04.015>
- Pfister U.** (2020), Urban population in Germany, 1500 - 1850, CQE Working Papers 9020, Center for Quantitative Economics (CQE), University of Muenster. URL: https://www.wiwi.uni-muenster.de/cqe/sites/cqe/files/CQE_Paper/cqe_wp_90_2020.pdf
- Pokrovskii V.** (1897), Naselenie (Population). Entsiklopedicheskii slovar' Brokgauza i Efrona (Brockhaus and Efron Encyclopaedic Dictionary). Vol. XXa, 1-34. [in Russian] URL: <https://ru.wikisource.org/wiki/ЭСБЕ/Население> (accessed 29.01.2025).
- Puga D.** (1998), Urbanization Patterns: European Versus Less Developed Countries. Journal of Regional Science, 38(2), 231-252. DOI: <https://doi.org/10.1111/1467-9787.00090>
- Reba M., Reitsma F., Seto K. C.** (2016), Spatializing 6,000 years of global urbanization from 3700 BC to AD 2000. Scientific Data, 3, 160034. DOI: <https://doi.org/10.1038/sdata.2016.34>
- Reulecke J.** (1985), Geschichte der Urbanisierung in Deutschland. (The History of Urbanization in Germany). Frankfurt/M. [in German]
- Rudenko V.** (2011), Zupan Oleksandr (Supan Alexander). Entsiklopediia Suchasnoi Ukrainy (Encyclopedia of Modern Ukraine). Vol. 11, 45. [in Ukrainian]. URL: http://esu.com.ua/search_articles.php?id=14050 Accessed on 29.01.2025.
- Rudenko V., Bilous V.** (2022), Pidruchnyk heohrafiï za pryntsyropy suchasnoi nauky dlia avstriiskyykh serednykh shkil Oleksandra Zupana yak vyznachnyi heohrafo-pedahohichnyi tvir (Alexander Supan's Textbook of Geography Based on the Principles of Modern Science for Austrian Secondary Schools as an Outstanding Geographical-Pedagogical Work). Heohrafichna nauka ta osvita: perspektyvy y innovatsii

(Geographical Science and Education: Prospects and Innovations), Proceedings of the 2nd International Scientific-Practical Conference, Pereiaslav, 125-129. [in Ukrainian]

Rudenko V., Bilous V. (2023), Assessment of the Population of Medium and Small Towns of Europe in the Last Quarter of the 19th Century in the Works by Professor Alexander Georg Supan. *Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego* (Studies of the Industrial Geography Commission of the Polish Geographical Society), 37(3), 73–84. DOI: <https://doi.org/10.24917/20801653.373.4>

Semenov-Tian-Shanskii V. (1910), *Gorod i derevnia v Evropeiskoi Rossii. Ocherk po ekonomicheskoi geografii s 16 kartami i kartogrammami* (Town and Village in European Russia: An Essay in Economic Geography with 16 Maps and Cartograms). *Zapiski Imperatorskogo Russkogo Geograficheskogo Obshchestva po otdeleniiu Statistiki* (Notes of the Imperial Russian Geographical Society, Statistics Section). St. Petersburg. 10(2). [in Russian]

Sidaway J. D., Hall T. (2017), Geography textbooks, pedagogy and disciplinary traditions. *Area*, 50, 34-42. DOI: <https://doi.org/10.1111/area.12397>

Simpson T., Hulme M. (2023), Climate, cartography, and the life and death of the 'natural region' in British geography. *Journal of Historical Geography*, 80, 44-57. DOI: <https://doi.org/10.1016/j.jhg.2023.02.001>

Supan A. (1874), *Lehrbuch der Geographie nach den Principien der neueren Wissenschaft für österreichische Mittelschulen und verwandte Lehranstalten sowie zum Selbstunterrichte* (Textbook of Geography Based on the Principles of Modern Science, for Austrian Secondary Schools and Related Educational Institutions, as well as for Self-Instruction). Ljubljana (Laibach), Verlag von Ig. v. Kleinmayr & Fed. Bamberg [in German]

Supan A. (1875), *Lehrbuch der Geographie nach den Principien der neueren Wissenschaft für österreichische Mittelschulen und verwandte Lehranstalten sowie zum Selbstunterrichte* (Textbook of Geography Based on the Principles of Modern Science, for Austrian Secondary Schools and Related Educational Institutions, as well as for Self-Instruction). 2. Verb. u. teilw. umgearb. Aufl. Laibach, Kleinmayr [in German]

Supan A. (1880), *Lehrbuch der Geographie nach den Principien der neueren Wissenschaft für österreichische Mittelschulen und verwandte Lehranstalten sowie zum Selbstunterrichte* (Textbook of Geography Based on the Principles of Modern Science, for Austrian Secondary Schools and Related Educational Institutions, as well as for Self-Instruction). Ljubljana (Laibach), Verlag von Ig. v. Kleinmayr & Fed. Bamberg [in German]

Supan A. (1889), *Österreich-Ungarn. Sonderabdruck aus der Länderkunde Europas mit 3 Karten, 60 Vollbildern u. 121 Textabbildungen* (Austria-Hungary. Special Reprint from the Regional Geography of

Europe, with 3 maps, 60 full-page illustrations, and 121 figures in the text.). Prag. Wien. Leipzig. Publisher F. Tempsky [in German]

Supan A. (1890), *Lehrbuch der Geographie nach den Principien der neueren Wissenschaft für österreichische Mittelschulen und verwandte Lehranstalten sowie zum Selbstunterrichte* (Textbook of Geography Based on the Principles of Modern Science, for Austrian Secondary Schools and Related Educational Institutions, as well as for Self-Instruction). 7. Aufl., rev. Neudr. d. ... 5. Aufl. Laibach: Kleinmayr & Fed. Bamberg [in German]

Supan A. (1904), *Lehrbuch der Geographie für österreichische Mittelschulen und verwandte Lehranstalten sowie zum Selbstunterrichte* (Textbook of Geography Based on the Principles of Modern Science, for Austrian Secondary Schools and Related Educational Institutions, as well as for Self-Instruction). 11. Aufl. Laibach: Kleinmayr & Fed. Bamberg. [in German]

Supan A., Rothaug R. (1911), *Lehrbuch der Geographie für Österr. Mittelschulen*. Neubearb. von --- 12., auf Grund der neuen Lehrpläne vollst. umgearb. Aufl. T. 1: (für die erste Klasse) (Textbook of Geography for Austrian Secondary Schools. Newly revised by ---. 12th edition, completely reworked on the basis of the new curricula. Part 1: (for the first class/year).). Laibach: Ig. v. Kleinmayr & Fed. Bamberg. [in German]

Supan A., Rothaug R. (1913), *Lehrbuch der Geographie für Österr. Mittelschulen*. Neubearb. von --- 12., auf Grund der neuen Lehrpläne vollst. umgearb. Aufl. T. 1: (für die zweite Klasse) (Textbook of Geography for Austrian Secondary Schools. Newly revised by ---. 12th edition, completely reworked on the basis of the new curricula. Part 1: (for the second class/year).). Laibach: Ig. v. Kleinmayr & Fed. Bamberg. [in German]

Teuteberg H. J. (1991), *Die Explosion der Städte im 19. Jahrhundert und ihre Folgen. Die Stadt als Kultur- und Lebensraum, Vorträge im Wintersemester* (The Explosion of Cities in the 19th Century and Its Consequences. The City as Cultural and Living Space, Lectures in the Winter Semester.) 1990/91, Heidelberg, 67 – 82. [in German]

Voeikov A. (1906), *Raspredelenie naseleniia zemli v zavisimosti ot prirodnykh uslovii i deiatel'nosti cheloveka* [The Distribution of the Earth's Population Depending on Natural Conditions and Human Activity]. St. Petersburg: Tipografiia M. Stasiulevicha. [in Russian]

Wagner H. (1920), Alexander Supan. Dr. A. Petermanns Mitteilungen aus Justus Perthes'geographischer Anstalt, 66, 7/8, 139-146. [in German]

WorldCat (n.d.), *Lehrbuch der Geographie: für österreichische Mittelschulen und verwandte Lehranstalten sowie zum Selbstunterrichte* (Textbook of Geography Based on the Principles of Modern Science, for Austrian Secondary Schools and Related

Educational Institutions, as well as for Self-Instruction) /Formats and Editions [Electronic resource]. URL: <https://www.worldcat.org/formats-editions/444436293> (accessed 29.01.2025). [in German]

Zinkina J., Ilyin I., Korotayev A. (2016), The Nineteenth-Century Urbanization Transition in the

First World. In: Globalistics and Globalization Studies: Global Evolution, Historical Globalistics and Globalization Studies, Vol. 6. Volgograd: Uchitel Publishing House, pp. 164-172. URL: https://www.sociostudies.org/books/files/globalistics_and_globalization_studies_6/164-172.pdf