
Summary

Austrian Silesia in the process of modernization (1742–1914)

Perhaps no other province of the Habsburg Monarchy underwent such a dynamic process of development and experienced such a fundamental economic transformation during what is known as the “long 19th century” as Austrian Silesia. In the 1830s, Austrian Silesia was still a geographically peripheral province in which industrialization was proceeding at a gradual pace. Its economy was based primarily on agriculture (which was limited by natural conditions and focused mainly on the local market) and on isolated pockets of proto-industrialized textile manufacturing or iron production, mainly located in the mountainous areas of the province. Agriculture continued to play a dominant economic role even in the heart of what would later become the Ostrava industrial region. Textile production was a key industry, including the manufacture of linen (Bruntál, Frývaldov, Zlaté Hory, Frýdek, etc.) and woollen goods (Bielsko, Opava, Krnov, Vítkov, Odry). The mineral resources of the densely forested Beskydy and Jeseníky mountains were exploited not only by small-scale paper mills and glassworks, but also by the charcoal-fuelled ironworks owned by the Duchy of Těšín’s Chamber of Estates, the Diocese of Breslau (Wrocław) and the Teutonic Order.

However, in the late 1830s and early 1840s the Ostrava industrial region began to experience a decisive transformation which ultimately made it the most economically developed part of Austrian Silesia. The Ostrava region stood apart from the surrounding regions—both in the volume of industrial investment it attracted and also in the structure of its industrial sector, which was highly homogeneous and dominated by coal mining and iron production.

Paradoxically, two key events which had a decisive influence over the development of Austrian Silesia—indeed an influence which continues to be felt even today—took place outside the province itself. The first of these events was the establishment of the Rudolf Ironworks in Vítkovice (1828), part of the neighbouring province of Moravia. The second event was the foundation of the Emperor Ferdinand Northern Railway Company in Vienna (1836). The rapid growth of the Vítkovice ironworks complex was closely connected with the construction of the railway line from Vienna to Galicia, and it generated a substantial multiplier effect. The increased demand for

railway-building materials stimulated the ironworks' increased demand for iron ore and fuel, while the railway's steam engines likewise boosted demand for fuel.

This process became even more dynamic when the railway reached Bohumín in 1847 and when it was linked up to the Prussian railway network in Upper Silesia (two years later). The Emperor Ferdinand Northern Railway was one of the Habsburg Monarchy's main rail corridors, and it became the main economic artery not only of Austrian Silesia, but also of Moravia, Lower Austria and the western part of Galicia. Alongside the Vítkovice ironworks and the Ostrava-Karviná coal mines, the railway attracted a range of other industrial activities, which combined to create the Ostrava industrial region—the region where the majority of industry in Austrian Silesia and north-east Moravia was concentrated.

The construction of branch lines of the Emperor Ferdinand Northern Railway, as well as the activities of newly established railway companies, created a denser and more comprehensive rail network. This network included major railway junctions such as Svinov, Přívoz and (above all) Bohumín. It was in Bohumín that the Emperor Ferdinand Northern Railway linked up with the Prussian-Silesian rail network and the transverse Košice–Bohumín railway, which connected the region to Upper Hungary (now Slovakia).

During the 1850s, new factories were established in the vicinity of these major transport hubs, taking advantage not only of the excellent access to the railway infrastructure, but also of the presence of iron production, sources of fuel and other factors. Investors were also attracted to other locations close to the region's railway lines. Production in the smaller industrial centres that emerged at this time was directly connected to production in the dominant core of the Ostrava industrial region. The area between Moravská Ostrava, Bohumín and Fryštát had numerous industrial sites and a dense transport network, and it attracted a further influx of capital and labour—though workers did not arrive in regular waves. Migrant labourers initially populated the areas in the core of the industrial region; the development of both traditional and new industries (such as mechanical engineering and chemical production) then brought new workers to more distant regions. This did not cause complete stagnation in the traditional centres of textile or iron production; these centres also grew, and their industries adapted to changing conditions. However, they could not compete with the Ostrava industrial region either in the volume or the value of their production.

The large industrial and agricultural complex owned by the Duchy of Těšín's Chamber of Estates occupied a unique position within the province. Though it continued to operate traditional iron production sites in forested areas, the Chamber

also attempted to secure a new source of fuel by investing in the Ostrava-Karviná coalfield. The development of the rail network from the 1870s onwards (the construction of the Košice–Bohumín railway and the Ostrava–Frýdlant line) enabled the complex to undergo a rapid transformation. Although the Třinec ironworks and the Chamber's other industrial sites were relatively far from the core of the Ostrava agglomeration, the opening of rail lines facilitated transport and enabled the Chamber's industrial base to prosper. This applied not only to the Třinec ironworks, but also to the ironworks and engineering plants in Branka near Opava, Frýdlant nad Ostravicí, Kopřivnice and Studénka.

During the first phase of industrialization, Austrian Silesia's textile industry retained its dominant economic position; at the beginning of the 1840s it accounted for around 70% of the value of industrial production in the province. However, from the 1860s onwards—mirroring developments elsewhere in the Habsburg Monarchy—Austrian Silesia's textile industry was gradually overtaken by heavy industrial production, and by the outbreak of the First World War it accounted for below 20% of the province's industry. Woollen goods were the most important part of the textile industry (thanks to mechanized production), followed by linen and cotton goods. The most important textile centre in Austrian Silesia was Bielsko, which together with the neighbouring town of Biała (in the province of Galicia) made up an industrial conurbation specializing in woollen goods and the production of textile manufacturing machinery. In the western part of Austrian Silesia, the town of Krnov had a similar industrial base; in the second half of the 19th century Krnov gained primacy as the province's leading centre of woollen goods production. The largest linen production centres were the towns of Frývaldov and Bruntál, while the cotton industry was concentrated mainly in the town of Frýdek and the neighbouring town of Místek (in the province of Moravia).

Agriculture in Austrian Silesia likewise underwent a fundamental transformation. Well into the 19th century, the agricultural sector was still seeking ways to overcome its geomorphological and climatic handicaps and increase the value of its production. However, the ongoing processes of industrialization and demographic growth forced agricultural producers to embrace a fundamental shift in their production base; the sector began to concentrate almost entirely on meeting the needs of the province's industrial centres (meat, milk, timber, etc.) and the food industry (sugar refineries, distilleries, breweries, mills). Despite these structural changes, for a long time Austrian Silesia remained dependent upon food (especially grain, potatoes and cattle) imported from Moravia, Hungary and Galicia—though this was of course to a considerable extent due to technological developments that enabled food to be pre-

served for transport and storage. The shift from an agrarian economy to a combined agrarian-industrial economy led to ever more rapid depopulation, especially in the less fertile parts of the province.

Modernization processes also had a fundamental impact on society in Austrian Silesia—including the nobility. The negative impacts of modernization on the local nobility during this period were a precursor to its ultimate demise in the first half of the 20th century. Even before the partition of Silesia, the part of the province which remained under Habsburg control after 1742 had been a peripheral region of the historical Lands of the Bohemian Crown and the entire western part of the Monarchy. This peripheral status was reflected in the highly parochial nature of the local estates society, whose members found it difficult to transcend the boundaries of their home province to take up posts in the Monarchy's central authorities—including the Bohemian Court Chancellery (Böhmische Hofkanzlei) in Vienna. They also found it difficult to pursue diplomatic or military careers. Only a few members of Silesia's traditional aristocratic families managed to expand their horizons beyond Upper Silesia between the defeat of the estates rebellion and the mid-18th century. The creation of Austrian Silesia—a complex entity that consisted of two separate territories—led to a decline in the estates' traditional institutions that was unprecedented throughout the Monarchy, accompanied by a number of fundamental administrative reforms. This process gradually prepared the ground for the transformation of the traditional estates society into a civil society with a constitutional monarchy—a process which in fact began in Austrian Silesia before it penetrated into the other Habsburg hereditary provinces, but which was nevertheless less radical than in the neighbouring Prussian-controlled part of Silesia.

By the second half of the 18th century, the bureaucratization and professionalization of regional administration had already imposed stricter requirements upon officials; previously, membership of the local estates or the nobility had been considered an adequate qualification for such roles, whereas now the main emphasis was on professional competence. The proportion of provincial officials recruited from the local nobility declined—a trend which up to the mid-19th century was accentuated by the voluntary withdrawal of leading members of traditional noble families from estates institutions. Their place was taken by ambitious members of the new nobility or aristocratic families that were suffering pauperization and were attempting to enhance their social status. This process was particularly noticeable in the western part of Austrian Silesia, the united Duchy of Krnov and Opava. In the eastern part of the province, centred on Těšín, the local aristocracy, led by the Counts of Larisch-Mönnich, played a more active role—despite the fact that they lacked their own estates

assembly, unlike their counterparts in Krnov and Opava. From the 1860s onwards, the landed nobility began to take a greater interest in provincial politics and public affairs; this was a direct consequence of the establishment of a civil parliament, the Silesian Provincial Diet.

The structure of aristocratic society in Austrian Silesia was greatly affected by the radical shift in land ownership which occurred primarily in the second half of the 18th century and the early 19th century. This period saw the emergence of a small group of latifundia landowners who exploited the economic and social potential of their assets to successfully withstand economic crises and not only to cement their dominant position within Austrian Silesia, but also to rise to positions of power in Vienna. Some of them, especially the Larisch-Mönnichs and the Wilczeks, were influential industrialists who played a major role in the rapid industrialization of the eastern part of the province. They were comparable with the Prussian magnates who owned exceptionally large areas of land in the Prussian part of Upper Silesia, ranging between 14 000 and 50 000 hectares. The only Austrian Silesian landowners with holdings on this scale were the Duchy of Těšín's Chamber of Estates, with 65 000 ha (and perhaps the Larisch-Mönnichs, with 15 000 ha); the other latifundists, including the Liechtensteins and the Wilczeks, lagged some way behind their Prussian-Silesian counterparts in this regard. Indeed, Austrian Silesia had the smallest number of major landowners (i.e. those with over 10 000 ha) out of the three Bohemian Crown Lands, reflecting the province's relatively small size and specific course of historical development. Only the Larisch-Mönnichs were members of the local aristocracy. The other major landowners were Duchy of Těšín's Chamber of Estates (a secundogeniture of the ruling House of Habsburg-Lorraine), the Diocese of Breslau (Wrocław) and the Teutonic Order. However, it must also be noted that some of the Austrian Silesian aristocratic families (including the Wilczeks, the Larisch-Mönnichs and the Lichnowskys) also owned much larger areas of land in other Habsburg provinces and in Prussian Upper Silesia. The Liechtensteins were an extreme case, owning over 115 000 hectares in the Bohemian Crown Lands alone.

The Austrian Silesian nobility typically took very little interest in any form of business activity except for their own large-scale farming operations. Apart from the Larisch-Mönnichs, the Wilczeks and to a lesser extent a few other families involved in mining, ironmaking and other industries, the nobility refrained from investing in manufactories and later in industrialized factories. This was due to the precarious financial situation of the vast majority of the province's landed nobility, which meant they could not afford to participate in the financially demanding and highly competitive sphere of industrial enterprise. Most aristocratic medium-sized and small

landowners were suffering a slow and gradual process of pauperization, which was manifested in a number of ways. Primarily, they were forced to sell off parts of their land to their financially stronger neighbours—both aristocratic and non-aristocratic—and from the end of the 19th century, also to banks and commercial companies. Some families eventually sold off all their property, either finding replacements for it in other parts of the Monarchy or remaining in Austrian Silesia as landless nobles. In such cases, members of the affected families sought new ways of earning a living—as state officials or military officers—outside their native region. The arrival of noble families from other parts of the Habsburg Monarchy (or from abroad) could not halt the gradual shrinkage of Austrian Silesian aristocratic society.

The transformation of the Austrian Silesian landed nobility paradoxically helped to shake it out of its traditional parochial mindset, encouraging its members to integrate into the broader (and largely supra-national) aristocratic society of the Habsburg Monarchy and Europe as a whole. This process of “internationalization” was also stimulated by the arrival in Austrian Silesia of aristocrats from elsewhere (especially from Prussian Silesia) from the end of the 18th century, as well as the local aristocracy’s acquisitions in Galicia and other parts of the Monarchy.

Austrian Silesian aristocrats studied at universities in Vienna, as well as in other Habsburg provinces and abroad. They also travelled to foreign countries as students and tourists, and during the 19th century they built their own residences in Vienna as well as in resorts traditionally favoured by the aristocracy. This greatly expanded their social and cultural horizons; the Austrian Silesian nobility thus began to strive actively towards the essential social goal of “oben bleiben”.

The circumstances that accompanied the creation of the Austrian-Prussian border in the mid-18th century impacted deeply on the lives of many individuals and entire aristocratic families. Ownership of land on both sides of the border necessitated cooperation with both the Austrian and Prussian authorities; this gave rise to a specific “border mentality” which was manifested in a degree of social and professional instability. Especially during the reign of Friedrich II, the Prussian authorities were capable of causing numerous complications. The following period brought a relaxation of international (and local) cross-border relations, enabling the Austrian Silesian nobility to pursue careers in the Prussian Silesian administration or the Prussian Royal Army. These opportunities were particularly welcomed by the pauperized nobility.

The complexity of the situation was increased by the families that settled in Austrian Silesia primarily due to their genealogical links with the Prussian-controlled part of Silesia. Although they never completely cut off ties with their original home-

land, some of them adopted the identity of their new home region (and, by extension, of the Habsburg Monarchy as a whole). However, others continued to cultivate a Prussian identity and remained Prussian citizens, despite having built their main residences in Austrian Silesia. Members of the Polish nobility who had arrived from Galicia also retained strong links to their original homeland.

The parochial nature of aristocratic society in Austrian Silesia was entrenched by the degree of social upward mobility—i.e. upward progress through the hierarchy of aristocratic titles. The Habsburgs’ nobilitation policies were relatively accommodating to the Silesian nobility from the defeat of the estates rebellion to the end of Charles VI’s reign. Many families were nobilitated or promoted to counts as a reward for their support of the monarch and the monarchy, thus raising their social status. The period before the partition of Silesia had thus provided a qualitative and quantitative basis for the titular structure which remained essentially unchanged in Austrian Silesia until the demise of the monarchy following the First World War. It was rare for monarchs to award higher titles to members of the traditional aristocracy who owned land in Austrian Silesia; this was because the province lacked sufficient social potential to “produce” suitable candidates for the highest ranks of the aristocracy, so the core of its landed nobility consisted of *Freiherren* (free lords) and counts. Many *Freiherren* gave up any hope of achieving further advancement within the hierarchy due to a form of social stagnation caused not only by their gradual pauperization (accompanied by a retreat from traditional positions within the estates and a tendency to instead pursue careers in the military or the administrative bureaucracy), but also by their parochial regionalism and unwillingness to expand their mental horizons beyond their home province.

The nobilitation policy pursued by the Habsburg monarchs—who awarded both lower aristocratic titles (*Ritter*, i.e. knight, and *Edler*, i.e. nobility without a specific title) and the title of *Freiherr* (free lord)—focused mainly on non-members of the nobility and members of newly ennobled families who had distinguished themselves in administrative office, military service or business. In terms of social and professional status, the so-called new nobility consisted mainly of public officials, businessmen, members of the armed forces, and to a lesser extent also clerics. The new nobility was a highly diverse society, and its members were connected with Austrian Silesia in various ways. The largest group consisted of those who had not been born in the province, but had spent the majority of their lives there. Another important group consisted of those who had been born in Austrian Silesia but had mostly lived elsewhere, in a different part of the Habsburg Monarchy. The smallest group consisted of those who had been born in the province and also lived there. Like education, nobili-

tation was traditionally viewed as a reward for demonstrable abilities and service to the monarch, the state and the public, as well as a means of social betterment for both individuals and families. These individuals' desire for nobilitation motivated them to improve themselves—which is without any doubt one of the necessary preconditions for societal modernization—and the success achieved by those who had been born outside the nobility but had then achieved this promotion to a higher social rank served as a model for others who wished to achieve the same success.

Of course, the “new nobility” did not form a distinct social group. In terms of social stratification it belonged to the upper ranks of society, but it was “dissolved” within these upper ranks primarily due to differing career choices. Nobilitated officials and judges became integrated with the elite of officialdom, whose lifestyle resembled that of the urban elites. For nobilitated military officers, their nobilitation (which frequently went hand in hand with marriage) represented a ticket to join both the urban and rural elites, which would have otherwise remained inaccessible to them due to their lack of assets. The situation was similar for the technical intelligentsia—though due to the social and professional environment in which they moved, they gradually lost interest in membership of the nobility as a source of social prestige. It was the nobilitated business-owners whose lifestyles most closely resembled those of the traditional aristocracy; they divided their time between Vienna and their newly acquired rural residences, which they often (though not exclusively) purchased in the vicinity of the three main Austrian Silesian centres of population—Těšín, Opava and Bielsko. In general terms, the social trends among nobilitated individuals associated with Austrian Silesia were not significantly different from those observed elsewhere in the Habsburg Monarchy. The fact that only a smaller number of nobilitated individuals were active within the province itself was due to the restricted opportunities offered by this province on the periphery of the Monarchy. Austrian Silesia served more as a breeding-ground for members of the socio-professional elites, who then most often went on to achieve their greatest career successes and highest social status outside the province itself.

Silesian towns and cities likewise underwent a deep and irreversible transformation during the “long 19th century”. A natural population increase, combined with an influx of migrant labour, swelled the population, and urban areas expanded into formerly agricultural territory. Urban architecture also changed, though this was merely an external manifestation of building regulations and the aesthetic preferences of the era. A far more important development was the creation of a modern system of local government based on the principles of the imperial provisional law on municipalities (1849) and municipal legislative bodies (with provincial statutory instruments,

1862). Municipalities with powers of local government became one of the pillars of civil society, as well as being the scene of numerous local tensions and crises. This friction was a consequence of the electoral legislation; voting in municipal elections was not based on equal and universal suffrage with secret ballots, but instead privileges were granted to voters depending on their wealth and education. Especially in multiethnic municipalities, nationalist tendencies meant that elections became a battleground for different national communities all striving to gain dominant positions in local government bodies. This competitive nationalism was not restricted merely to occupying seats in municipal assemblies; it eventually spilled over into a struggle to dominate public space, especially when building public memorials—structures which were a typical and integral component of the urban environment, especially in the new parks that were created on the sites of demolished former city walls or municipal cemeteries. During the second half of the 19th century, towns and cities broke free of their encircling walls, and after a brief phase of unsystematic growth, they soon began to expand in accordance with municipal urban development plans, becoming modern communities. Building legislation meant that old quarters could be demolished and cleared, and new quarters were built in line with modern urban planning principles inspired by German and Austrian models. Technical infrastructure likewise underwent irreversible changes. As the 20th century approached, a town without a proper water supply network and sewerage system was considered to be backward. The same applied to municipal gasworks and power plants, slaughterhouses and other elements of municipal infrastructure—including public transport systems.

An entirely new type of urban settlement emerged during this period—the industrial town, shrouded in smog from its factories and resounding to the constant noise of textile mills, chemical plants, ironworks and mines. The blast furnace, factory chimney and colliery winding tower became symbols of these rapidly growing industrial centres, whose inhabitants lived in workers' housing schemes in the close vicinity of their workplace. Whereas the symbol of an old city was a cathedral, these new cities were symbolized by their town halls and represented by the mayor, a man whose power derived from the principles of representative democracy.

In Opava, the capital of Austrian Silesia, citizens could also encounter other representatives of political power—the provincial president, officials of the provincial government, and deputies of the Silesian Provincial Diet, the province's political representatives. Although public officials are often viewed as the standard-bearers for a boundless process of bureaucratization, recent research has revealed that despite their strict adherence to official procedures, they were in many respects responsible

for modernization in various areas—education, the building trade, health care, and more. The democratization of society included the expansion of suffrage for elections to the Provincial Diet—a result of structural changes and the political emancipation of the working class. From 1900 onwards it was not only a candidate's nationality that played a crucial role, but also his political views and public declarations.

The deputies in the Provincial Diet approved provincial statutory instruments implementing imperial legislation which created a framework for processes of modernization. They decided on the allocation of provincial subsidies—a source of funding which made an important contribution to the development of the province's education and health care systems. They also had close links with municipal and imperial political bodies, and their manifold political connections enabled them to play a crucial role in the province's public life. However, many of these deputies are now forgotten; the only ones still remembered today are those who, besides their careers in the Provincial Diet, also played a leading role in the national emancipation movements. Many Silesian politicians began their political careers as members of civic organizations—not only in political parties, but in an almost all-encompassing range of clubs and associations bringing together citizens who shared the same interests and goals.

These organizations represented a further key pillar of civil society, and in Austrian Silesia they reflected the existence not of two ethnic communities (Czech and German), but three (Czech, German, Polish). In addition, the end of the 19th century saw the emergence of the Zionist movement, as well as an increasing tendency for a certain part of the population to identify themselves with the political concept of Silesian identity. In the final years of the monarchy, music-lovers (for example) were thus often faced with several choices of concerts during a single week—such as performances by Polish, German and Czech choral societies. As the Great War approached, the process of modernization in Austrian Silesia had created a province with two faces; though modern, its society was riven by ethnic divisions. This fragmentation did not apply only to politics; it was also manifested in the cultural sphere and the press—which played a key role in the formation of civil society.

Schools are often considered an integral part of our ancestors' everyday lives, and due to Maria Theresa's introduction of compulsory school attendance, many people have a distorted image of the education system during the "long 19th century". In order to gain a complete picture of how modernization affected the education system in this multi-ethnic province, it is essential to be aware that even after the 1848 revolution, Czech and Polish did not have the status of official languages in Austrian Silesia. The imperial education law of 1869 defined the parameters for the ideal education system throughout the Habsburg Monarchy, but (especially in rural areas) this

ideal state usually did not become a reality until the final years of the monarchy. This was because the essential infrastructure (in terms of educational provision, buildings and hygiene standards) that would enable the provision of universal schooling for all children was not paid for by the state; under valid legislation, it was municipalities that were responsible for funding it. For poor rural communities, this represented a major financial burden, and the school was usually the lowest priority in the municipal budget. As a consequence, the education system received sizeable subsidies from the provincial budget, as well as considerable volumes of funding from school associations established along national (or confessional) lines; cultural nationalism was often the stimulus for the establishment of schools not only in towns and cities, but also in rural areas. A specific feature of Austrian Silesia was the existence of religious schools run by Utraquists (Hussites), enabled by provincial legislation known as *Lex Zeynek*.

Like primary education, secondary education too underwent irreversible changes during this period, when the essential foundations for the present-day secondary education system were laid. Besides traditional centres of education (in the mid-19th century, Opava and Těšín), new secondary schools of the *Gymnasium* type were established in other towns and cities, as well as different types of secondary schools responding to the requirements of the modern age—commercial schools, schools focusing on the needs of local industries, and also (from the end of the 19th century) schools educating young women. Secondary education likewise reflected the nationalization of society, as local "guardians of national identity" founded schools teaching in the language of the minority community which sought emancipation.

To some extent, nationalist tendencies also affected religious life in the province—especially in the Těšín region, where the confessional structure of the population was somewhat atypical. In a province with a mixed Catholic, Lutheran and Jewish population, religious life was a complex and multifaceted phenomenon, and it would be simplistic to view it merely against the background of the process of secularization; instead it should be seen in the broader context of the historical development of Austrian Silesia, where religion continued to play an important role throughout the entire "long 19th century". Manifestations of religious belief underwent a gradual process of change, but traditional pilgrimage sites (Frýdek, Cvilín etc.) remained popular, and Silesia's gallery of traditional provincial patrons was enlarged to include St. Barbara and St. Procopius, the patron saints of miners. Masses continued to form an integral part of miners' festivals, as well as featuring in other feast days both in cities and rural areas, at the start of the school year, and more. On the one hand, traces of secularization are visible in Silesian society during this period, including an

emerging atheist movement. However, on the other hand, ecclesiastical orders and congregations played an increasingly important role in charitable organizations and the provision of modern social services. A further piece in this mosaic of everyday religious life was the presence of Silesia's Jewish community; the revolutionary events of 1848/49 opened up the path to the community's ethnic, confessional, political and economic emancipation. The creation of a modern civil society in Austrian Silesia was a highly complex one, involving a kaleidoscope of various social groups with numerous distinct identities drawing on the modern concept of ethnicity, religious faith, gender, social status and political opinions.

From the demographic perspective, the term "population" refers to the people living in a particular territory; it is thus defined by that territory, regardless of its size. However, demographers are well aware that each territorial entity can consist of several relatively isolated populations, and that a political boundary may divide a single population into two, especially if that boundary shifts over the course of time. Demographic research must therefore be based on political territorial divisions, as population data was always presented and summarized for these administrative units. It is also essential to take account of territorial changes within these units, as such changes affect not only the size of a population, but also its structure and its economic, social and cultural characteristics.

Historical demographic research of Austrian Silesia and north-east Moravia is naturally impacted by changes in administrative boundaries, but these changes were used to benefit the analyses carried out. The largest number of administrative changes affected the Ostrava region, where the population grew rapidly and it became necessary to introduce a more effective geopolitical system to facilitate public administration; this is reflected in the creation of a new political district in 1900 (Moravská Ostrava, which was formerly a part of the Místek political district). This change understandably represents a complicating factor when conducting long-term analyses, as the new Moravská Ostrava political district (which experienced above-average population growth) had a major long-term impact on demographic developments in the wider territorial unit. On the other hand, the creation of the new district enables researchers to investigate the specific demographic situation in the district as a separate unit, as well as tracing the changes in the reduced Místek political district. Although the research was strictly based on the populations delineated by the administrative territorial boundaries, it also revealed different developmental tendencies between areas defined by administrative boundaries and those characterized by population "types".

The first criterion for the delineation of population types involved socio-economic structures; economic developments did not follow political boundaries, so in reality

the rapidly developing Ostrava-Fryštát industrial area was divided not only between two historical provinces (Moravia and Silesia), but also between different political and court districts. The second criterion was the cultural structure of the population, primarily delineated on the basis of their language of daily use ("Umgangssprache") and religion. Cultural boundaries undoubtedly existed between population groups of different religions and different languages, leading to varying degrees of cultural difference which were also reflected in reproductive behaviour. Besides the majority Catholic population of the area under investigation, there were also areas where Protestants were in the majority. Jewish communities also existed, and in the second half of the 19th century the eastern part of the area experienced several influxes of migration. Linguistic factors were also of interest to the research; in Austrian Silesia and north-east Moravia there were quite clearly delineated areas with majority German-speaking or majority Slavic-speaking populations. Another factor of interest was the definition of populations by biological criteria, i.e. by sex and age (though this was not always possible, as detailed age data was only given in the official statistics from the 1869 and 1880 censuses). The research also drew on a number of sources revealing changes in the biological structure of the population within the dynamically developing Ostrava-Fryštát region, which had a crucial impact on demographic growth in the province as a whole.

The research revealed the existence of four population entities which were indirectly dependent on administrative boundaries: 1) north-west Silesia, 2) the Opava and Nový Jičín regions, 3) the Fryštát and Ostrava region, and 4) the (southern) Těšín and Místek regions. The data were compared at the level of political districts and statutory cities, as well as to a lesser extent (due to restricted availability) on the level of court districts and smaller administrative divisions. The main aim was to trace the course of demographic transition (the demographic revolution) as one of the most important manifestations of the process of modernization. Although in some populations (or rather socio-cultural groups and communities) the salient features of the demographic transition were not manifested until after the First World War (which represented a major cultural shock even for people with a highly traditional mentality), for the population of the Bohemian Crown Lands as a whole, this process culminated prior to the disintegration of the Habsburg Monarchy. This trend can also be observed in Austrian Silesia and north-east Moravia, though the process unfolded differently there than in Bohemia and the rest of Moravia—and indeed there were substantial differences within the territory itself. The specific nature of the process in Austrian Silesia and north-east Moravia was to a large extent caused by migrations which led to major changes in population structures—not only in the economically

dynamic Fryštát and Ostrava region (which was an important destination for migrants), but also in the diametrically opposed region of north-west Silesia, an emigrant region with a stagnant or declining economy.

One of the most fundamental manifestations of the demographic transition was the entirely different reproduction behaviour of the population, termed the new demographic regime. In the Bohemian Crown Lands, the new demographic regime began to emerge during the 1820s and 1830s, as mortality rates gradually declined and birth rates slowly rose due to the increasing average marriage age, a result of the phenomenon of marriage postponement. However, a far more important phenomenon was the deliberate reduction of fertility in marriage; in the Bohemian Crown Lands this phenomenon was first observed in the higher social strata and in the German communities of North Bohemia and Prague from around the 1870s onwards. This behaviour constituted a cultural model which gradually spread into the lower strata of society and to the Slavic population. Its most visible manifestation was the existence of families with just one or two children. Demographic research of data covering a long timespan reveals that this process resulted in a long-term reduction in fertility, gross mortality and birth rates. The aim of the research was to observe this process and compare it with the development of gross marriage rates—which affected fertility and thus also birth rates. One of the main causes of the demographic transition is considered to be the notion of demographic safety—a phenomenon linked to the reduction in mortality rates, particularly the supermortality rate among women of reproductive age. At the turn of the 20th century, Austrian Silesia and north-east Moravia were also the scene of an epidemiological transition caused by the rise of prevention and prophylaxis for communicable diseases. This transition had a direct effect on the reduction in mortality rates, especially infant mortality—i.e. a key attribute of the demographic transition; it represents a further aspect of the development of modern medicine linked to the process of modernization.

The population of Austrian Silesia and north-east Moravia grew between 1869 and 1910; the growth index for Silesia was 148, and for the north-eastern part of Moravia it was as high as 196. Whereas Austrian Silesia included relatively large areas characterized by demographic stagnation or depopulation (mainly in the north-western districts of Bruntál, Krnov and Frývaldov), the only part of north-eastern Moravia to experience similar trends was the Frenštát region. The high growth indices were due primarily to large-scale migration into the industrial region of Fryštát and Ostrava. High positive values for the balance of population growth and natural change were recorded mainly in the Fryštát and Místek (or Moravská Ostrava) districts; immigration was far from the only factor in this growth, as natural increase also played a very

substantial role. Indeed, natural increase was primarily responsible for the growth in the total population of Austrian Silesia, as the balance of population growth and natural change were mostly negative during the period under investigation—indeed, during the last decade (1901–1910) the balance was markedly negative, i.e. more people left the province than arrived there as new residents, and the population grew due to natural increase.

Research into migration confirmed several previous findings. The area with the highest emigration was north-west Silesia, whose German-speaking population most frequently moved to Lower Austria, especially Vienna. As these emigrants were mainly young men of productive age, the districts of Bruntál, Krnov and Frývaldov displayed low marriage and birth rates. The predominant industry in these regions—textiles—offered work mainly to women and girls; there was a lack of male partners for marriage, leading to high non-marital birth rates. The proportion of children born out of wedlock in these districts ranged from 10% to 20%, which was still relatively low in comparison with other German-speaking areas of the Bohemian Crown Lands and the Austrian provinces. In north-west Silesia the demographic transition took a very smooth course. From the beginning of the period under investigation, gross birth and death rates fell steadily, without significant fluctuations, up to the First World War (gross birth rate below 30‰). In the initial phase, this process was undoubtedly caused mainly by the difficult economic situation and the biological structure of the population. The situation was similar in the rest of the western half of Austrian Silesia (i.e. the political district of Opava and the Bílovec district which was later detached from it), and in north-eastern Moravia in the Nový Jičín district (though the proportion of children born out of wedlock was lower there).

Fryštát and Ostrava were a region with high levels of migration attracted by heavy industry—mainly coal mining and iron production, which despite ongoing mechanization still required a large labour force. The migrants to this region were young people of productive age, who after achieving a relatively stable income were quick to marry and have children. Most of the migrants originated in the Těšín region and Galicia. They were Slavic-speakers whose reproductive behaviour was entirely traditional, so they probably took no measures to reduce fertility in marriage. As a result, the birth rate in this region at the end of the 19th century was 50‰—an entirely exceptional figure caused by the biological structure of the population, the low average marriage age, and traditional demographic behaviour. However, at the beginning of the 20th century the influx of migrants came to a halt, and fertility declined very rapidly. Before the First World War, this development appears to have been caused by the stabilization of the biological structure of the population; for example, in the

Frýdek-Land political district (including the Polská Ostrava court district) the fertility index I_g was still around 0.75, which does not indicate an increase in the deliberate reduction of fertility. By contrast, the higher social strata were undoubtedly taking measures to reduce fertility, as substantially lower values of I_g were calculated for the urban communities of Opava, Bielsko and Frýdek, where I_g dropped below 0.5 by 1910. In view of the sharp decline in the birth rate, it is possible that this cultural model was adopted by the lower strata of society, though this occurred to a greater degree after the First World War, as confirmed by family reconstructions using analytical surveys.

The most traditional reproductive behaviour was practiced in the southern parts of the Těšín and Místek regions—though there too the gross birth rate declined, albeit from a higher base than in Opava Silesia and the Nový Jičín region. In the Bielitz-Land, Těšín and Místek districts, the mean gross birth rate over five-year (or three-year) periods did not drop below 30‰, though it did approach this threshold. The traditional attitudes of the population were manifested in the low percentages of children born out of wedlock; the population evidently disapproved strongly of illegitimate children, as the mortality rate of these children in these regions was substantially higher than in north-west Silesia. The reason is clear; the mountain valleys and foothills were inhabited by Slavic-speakers whose cultural behaviour was strongly conservative.

Child mortality very clearly reflected the ongoing course of modernization. For many years it proved impossible to reduce mainly infant mortality (i.e. children up to one year of age). Historical demographers have reached a consensus that the continuing high infant mortality rate was caused by inadequate maternal care, early termination of breast-feeding and the use of inappropriate substitute food (which was made with poor-quality water). Rural areas offered no advantages in this regard, as domestic wells were often located near to manure heaps, and were polluted by seepage. Another constant hygiene risk was the presence of old sewers which drained not only rainwater, but also waste water from homes, laundries, factories, bathhouses, hospitals and so on. The public health authorities attempted to exert pressure on municipalities to build modern sewerage systems, but their efforts were only successful in large towns and cities, and not until around the turn of the 20th century. Opava's city council did not begin discussing the construction of a modern sewerage network until 1894—and it was the first city in Austrian Silesia to do so. The only towns and cities which had central water works at the time were Opava, Bielsko, Krnov and Těšín. A total of 392 locations had simple water supply systems, but otherwise people relied on public and private wells for their water supply—of which almost 10% were

contaminated with bacteria. When making food for infants as a substitute for breast-feeding, mothers used not only water, but also milk, which at the time was almost never pasteurized. The dairy in Opava only heat-treated its milk to kill microorganisms during epidemics. Women in Austrian Silesia did not breast-feed for longer than 6–8 months, and in areas where the female employment rate was higher (such as in north-west Silesia), breast-feeding probably lasted for an even shorter period; in his 1907 report, an official doctor in the Bruntál district noted that newborns and infants were not receiving their mothers' milk because their mothers were returning to work in the factories soon after giving birth.

High levels of infant mortality were recorded primarily in the Opava-Land, Bielitz-Land and Frýdek-Land districts; in Frýdek-Land the rate only declined when the court district of Polská Ostrava (an industrial area) was incorporated into the district. In the neighbouring Místek district, infant mortality was somewhat lower; at the end of the 19th century it was 209.1‰, but when the court district of Moravská Ostrava (likewise an industrial area) was detached from the district at the turn of the 20th century, it rose to 223.3‰. By contrast, infant mortality in Moravská Ostrava and the surrounding Moravian municipalities was relatively low (202.7‰), and low rates were also recorded in Fryštát, another industrial district. The presence of heavy industry had a positive impact on infant mortality rates; this may have been due to the fact that mothers had more time to devote to child care (as most employees were men), as well as better housing and medical care—due not only to the creation of a system of official doctors, but also to the creation of well-paid posts for doctors employed by factories and health insurance companies in rapidly growing industrial communities. As a result, public awareness of health-related issues was substantially better in urban areas than in the countryside, and mothers were also better informed about how best to care for newborns.

Mortality rates for young children (aged 1–4) followed a somewhat different pattern. Rates were higher in the industrial area of Ostrava and Fryštát and also in the remaining parts of the Těšín and Místek regions, while they were relatively low in the north-west parts of Austrian Silesia—which is something of a surprise given that vaccination take-up in those regions (77%) was lower than in the eastern part of the province (92%). In the eastern part of the province (Těšín Silesia) only 0.1% of children's legal guardians refused vaccination, while in the western part (Opava Silesia) the figure was almost 18%. This was evidently a manifestation of one of the dark sides of modernization, as a debate on the health risks of vaccination had developed among intellectual circles in Opava. On the one hand, doctors' constant promotion of vaccination can be viewed as an integral part of the modernization process, but on

the other hand the surfeit of information made it easier for misinformation to spread and for people to take a negative stance (whether justified or not) towards various issues. However, the higher mortality rate among young children in heavy industrial areas was also due to the high birth rates and low infant mortality in those areas. Put simply, there were many children aged 1–4 in the Ostrava and Fryštát region, and they could have suffered from the more problematic social and ecological situation in the region – especially the poor air quality. Nevertheless, even here the mortality rate for young children declined, which may again have been a result of medical care and increased public awareness of health-related issues.

Around the turn of the 20th century there was a widespread shift in public attitudes to health. The process of modernization—including numerous advances in medicine and hygiene, as well as the emergence of new attitudes to health—altered the general climate in society. The state also played a key role in promoting these new attitudes. In accordance with a ministerial order of 23 May 1870 and section 10 of the imperial health care law, a Provincial Health Council was established in Austrian Silesia to coordinate improvements in public health and hygiene. From the 1880s onwards, new hospitals (based on the modern pavilion-type configuration) were built and existing hospitals were modernized. Only the newly built hospital complexes were granted the status of public institutions, so the province's only public hospitals were in Opava, Bruntál, Bielsko and Těšín. These hospitals had four main functions: they offered accident and emergency services, in-patient care, pre-operational and post-operational diagnostic services, and out-patient care. In 1900 the Provincial General Hospital was opened on the outskirts of Opava; thanks to this new institution, the city's medical services ranked among the best in the entire Habsburg Monarchy. In addition, there was a network of smaller hospitals. However, from a statistical perspective the expansion of hospital provision had the effect of distorting the data; the increase in the number of deceased patients had a negative impact on the mortality statistics in the city where a hospital was located—an effect that can be observed e.g. in the cities of Opava and Bielsko.

There is no doubt that the battle against a persistently high mortality rate is one of the fundamental manifestations of modernization, and it deserves further detailed research. One reason for this is that official doctors were obliged to record statistics mainly concerning births and deaths—which were simpler than demographic statistics, but in some respects represent a richer source of information. For example, these statistics included detailed breakdowns of deaths by cause, which would be useful for more detailed research into the declining rates of birth and (above all) mortality.

The research findings presented here capture demographic developments in Austrian Silesia and north-east Moravia with an emphasis on how modernization was manifested in the demographic transition, particularly the second phase of this transition, which developed in very different ways in different parts of the territory under investigation. The main protagonists in this process were the larger towns and cities, which experienced a transition to small nuclear families—as well as all the various consequences associated with this shift, such as the establishment of modern hospital facilities, sewerage systems, water supply infrastructure and so on. This opens up an avenue for future research on the first phase of the demographic transition, for which natural change statistics exist for the period 1828–1869 (in the *Tafeln zur Statistik der Österreichischen Monarchie*) providing interesting data on mortality according to cause of death—so these sources have the potential to offer new insights into the development of health care. The third phase of the demographic transition is likewise an important stage in the modernization processes, as the inter-war years witnessed a general shift in reproductive behaviour moving towards the model of two-child families.