Received: 2020-03-09 DOI 10.19233/AH.2020.28

POSTWAR: THE SOCIAL TRANSFORMATION OF EMPIRE IN 19TH CENTURY EUROPE. SCIENTIFIC KNOWLEDGE, HYBRIDITY AND THE LEGITIMACY OF IMPERIAL RULE

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ABSTRACT

The Napoleonic post-war era is considered a period of restoration, yet recent works have delivered fresh insights, which suggest to fundamentally re-evaluate and reconsider the first half of the 19th century in Europe. Particularly the role and the agency of members of the rising middle-classes in the rebuilding of imperial rule all over Europe appear to necessitate an update in the light of newer research. When a quarter century of war destroyed centuries-old social fabrics, securities and certainties, it was particularly well educated members of the middle-classes, who became the most valuable allies of imperial rulers in their project to rebuild their empires. However, what was sold as a "restoration" to contemporaries and subjects frequently realized large-scale, knowledge-driven modernization projects, which centralized administrations, put rulers into stronger positions and marginalized older social elites. Yet, with the middle-classes and their education, ideas of enlightenment and emancipation entered the centers of calculation of imperial rule, which triggered an ongoing process of negotiation between rulers and their new, bourgeois imperial intermediaries.

Keywords: New Imperial History, Central Europe, Habsburg Empire, Social History, History of Knowledge, Middle Classes, Cartography, History of Administration, History of Science

POSTWAR: TRASFORMAZIONE SOCIALE DELL'IMPERO NELL'EUROPA DEL XIX SECOLO. CONOSCENZA SCIENTIFICA, IBRIDISMO E LEGITTIMITÀ DEL POTERE IMPERIALE

SINTESI

L'era che seguì le guerre napoleoniche è considerata come un periodo di "restaurazione". Tuttavia, studi più recenti hanno gettato nuova luce su questo periodo e hanno iniziato a riconsiderare profondamente l'Europa della prima metà dell'800. In particolare, l'operato degli esponenti della nascente classe media, impegnati nella ristruttura-

ACTA HISTRIAE • 28 • 2020 • 4

Wolfgang GÖDERLE: POSTWAR: THE SOCIAL TRANSFORMATION OF EMPIRE IN 19^{TH} CENTURY EUROPE ..., 511-540

zione del ruolo degli imperi europei, sembra necessitare di un aggiornamento. Dopo un quarto di secolo di guerre, che aveva spazzato via strutture sociali secolari, sicurezze e certezze, furono proprio i membri della classe media intellettuale che divennero i più valenti alleati dei sovrani nei loro progetti di ricostruzione dei loro imperi. Tuttavia, ciò che fu presentato ai contemporanei e ai sudditi come una "restaurazione" fu in realtà un modo per realizzare progetti di modernizzazione basati sulla conoscenza attraverso un'amministrazione centralizzata, che rafforzava la posizione dei sovrani e marginalizzava le vecchie élite sociali. Inoltre, grazie a questa classe media e alla sua educazione, le idee illuministe ed emancipatrici influenzarono i centri di pianificazione del potere imperiale, e innescarono un continuo processo di negoziazione tra i governanti e il loro nuovi intermediari borghesi imperiali.

Parole chiave: New Imperial History, Europa Centrale, Impero Asburgico, Storia Sociale, Storia della Conoscenza, Classe Media, Cartografia, Storia dell'Amministrazione, Storia della Scienza

Decades before ibridismo became a buzzword in bourgeois salons during the late Habsburg Monarchy (cf. the articles in this book by Francesco Toncich and Daniela Simon), a civil servant in charge of the statistical office of the then Austrian Empire set out to create a comprehensive knowledge base which was supposed to serve a multitude of different purposes: to gather and to display information on the ethnographic composition of the "state," to provide a fundamentally renewed, expanded and purportedly more centralized imperial administration with means for informed decision-making, and to contribute to the social integration of an empire on its way to modernization. The Ethnographic Map of the Austrian Empire was supposed to form the material basis for a modernized notion of the Central European Habsburg Empire, a representation of its political body, while reflecting and representing its social and cultural diversity. It was designed to provide administrators with an enormous amount of information, highly compressed on a large and colorful sheet of paper. It should deliver, to political stakeholders from in- and outside the empire alike, an image of a great power featuring natural and cultural harmony, not in spite of but through the immense degree of diversity it bore and it was designed to offer to its subjects - or, as Czoernig dared to state - citizens - a chance to identify themselves with the power and glory of an institution that was soon to receive more participation and identification from their side (Anderson, 1998, 29).

The following article aims to explore the origins of a knowledge that later provided for the observation of ibridismo.1 It will illustrate the different aspects and backdrops which played decisive roles in the production and the arrangement of information, forming the image of an intrinsically diverse population. By focusing on Karl von Czoernig, a top-official in charge, his fellow colleagues and his role in early 19th-century information and knowledge generation between administration and science, I will provide the background for a more profound understanding of the discourse on hybridity which became so important in later decades of the century. I will argue that the immense importance of knowledge to imperial rule in the decades after the Napoleonic Wars strengthened the position of social climbers from the middle classes. Many of these polymaths, who had enjoyed a comprehensive education in the spirit of the late Enlightenment, were able to climb the career ladder in rapidly growing imperial administrations (Martus, 2015, 17 ff.). As polyglot men, often with considerable travelling experience, they built and made use of trans-imperial networks of fellow middle-class agents, who rose at the expense of a considerable class of ancien régime aristocracy (Godsey, 2004, 141 ff.). Czoernig and his peers provided fundamental support to imperial rulers by creating a new source of legitimacy to imperial rule, a vast amount of knowledge that processed an immense amount of information. This resource not only provided for improvements to be made in taxation and recruiting but also in socially integrating complex empires and – in the long run – in paying the way to more political participation for larger parts of the population.

¹ Czoernig's Ethnographic Map appears to have been by far the best-known and most influential map stating the "ethnographic" diversity of the Habsburg Empire's population. I would not say here that his map was the sole source of later discourses on ibridismo.

Proceeding on the assumption that imperial rule and the versatile postwar middle classes actually acted as resources for each other (Ash, 2002), I will show how a) certain knowledge, particularly in its scientific manifestation, became a key requisite to modernized imperial rule, b) how spaces for strategic action opened up in the margins of this process and c) how and under which conditions the roots, made up of the social fabric of Habsburg Central Europe, underwent fundamental changes in the course of this development.

THE ETHNOGRAPHIC MAP OF HABSBURG CENTRAL EUROPE IN THE 1850s

The Ethnographic Map was among the first very powerful and influential maps to become available in Europe after the Napoleonic Wars and the breakdown of the ancien régimes all over the continent. It rendered information and knowledge - that had long been restricted exclusively to the eyes of rulers and their counselors (Zeller, 1979, 20 ff.) – accessible to a larger part of the population, a process to be observed also elsewhere in Europe in the course of the 1840s and 1850s (Labbé, 2011, 152). The map, produced by Karl von Czoernig and a large number of colleagues – among others the renowned cartographer Joseph von Scheda – stood out in terms of quality, both in its cartographic and its ethnographic dimension (Hansen, 2015, 56). Yet, what distinguished it from similar maps in other parts of Europe was its approach: Czoernig's Ethnographic Map did not aim at the representation of similarity in terms of ethnic belonging, legal status or social standing, instead he proceeded on the assumption that the true character of Habsburg Central Europe was built on a fundamental harmony emanating from the century-long co-habitation of a vast number of different tribes in a zone where three major natural spaces - the inner-Asian plain, the rolling hills and the Alpine mountains – met (Czoernig, 1857, V–XVIII). Instead of looking for national unity, Czoernig declared that no such thing could ever be thought of in a zone that for centuries had been one of encounters and exchange, deeply influenced by the arrival of ever new groups of people (Labbé, 2004, 72 f.).²

In a first step, I suggest exploring the production of the *Ethnographic Map*, its widespread distribution and its reception in the course of the second half of the 19th century. The main argument that I would like to present is that neither this map nor later discourses on *ibridismo* can be fully understood outside the context of a social transformation – middle-class emancipation – that gained momentum all over Europe in the aftermath of the Napoleonic Wars. The breakdown of *ancien régimes* during the revolutionary wars and the partial elimination of century-old social elites in Central Europe opened spaces for social mobility to many newcomers, who frequently came from the ranks of what used to be the lower nobility and the middle classes (Godsey, 2004). The re-building of empires in Europe and the subsequent re-definition of an imperial sphere opened up new channels of communication between different social groups. The massive social transformation that European empires underwent in the course of the

² Further work by Morgane Labbé on the issue of ethnographic and linguistic maps deserves attention, as it displays a panoramic, learned and comparative insight into the subject.

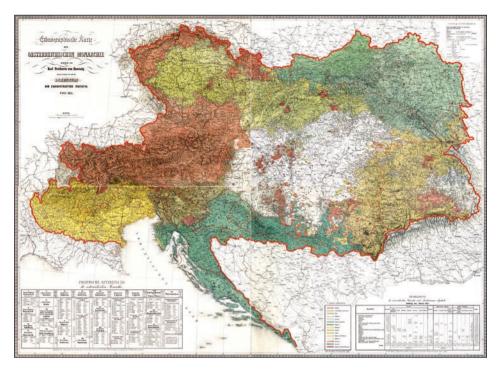


Fig. 1: The Ethnographie der österreichischen Monarchie / Ethnographic map of Austrian Monarchy, Karl von Czörnig, 1855 (Wikimedia Commons).

19th century saw the re-negotiation of power relations between rulers, former subjects, new citizens and those members of social elites, who had to deal with a relative loss of importance and influence (Evans, 2016).

Another aspect that this article is not going to deal with, although it is intrinsically linked with the process of social transformation under scrutiny here, is the subsequent territorialization of imperial rule in Central Europe, mediatized and catalyzed by the knowledge generated in this context (Göderle, 2016a, 77 ff.).

I argue that the production and circulation of knowledge in the form of maps, illustrated books and journals, played a major role in the emancipation of a rising middle-class, which made use of these media to increase its representation in the political process and to expand its influence on decision-making. The remains of an older *république des lettres* (Hotson & Wallnig, 2019; Martus, 2015, 92 ff.) and newer networks in parts amalgamated into a transimperial (Schär, 2015, 12–14) public sphere, a communication space run and populated by a European middle-class, open to its members yet restricted and opaque to those outside (Moretti, 2013, 3 ff.; Csáky, 2010, 101 ff.). By disseminating supposedly scientifically produced knowledge (Raj, 2016, 258), members of the new administrative elites – well-educated, increasingly university-trained men from what used to be the lower aristocracy and the middle-classes in the *ancien régime* – successfully established new

certainties, categories and perspectives. Statisticians, cartographers, writers, illustrators, scholars, many of whom occupied positions in the quickly expanding imperial bureaucracies, pushed existing or created new boundaries by developing and refining their role as experts and their specialist skills (Göderle, 2018). However, what science meant and how scientific standards could be attained and assured was still very much subject to ongoing debate.³ This is especially relevant for the field of statistics, a subject which moved from being an administrative craft to a scientific discipline in the course of half a century (Göderle, 2016a, 113 ff.; Porter, 1995; Behrisch, 2016).

Research literature still tends to treat these processes as part of the larger and farreaching emergence of (nation-)statehood (Ganzenmüller & Tönsmeyer, 2016, 7 ff.). This perspective develops an understanding of the phenomenon in retrospective, the present result – contemporary statehood – limits and restricts the view on contingencies and alternative paths of development that were at least conceivable in the historical context (Fillafer, 2016). I therefore chose a different point of departure and conceptualized the larger part of the 19th century in the European context as a world of empires. Thus, this article tries to understand the emergence of administrations and certain knowledge configurations rather from the logics and pragmatics already at work in the 18th and early 19th century than from a retrospective teleological questioning of what might have led up to the current state of things. The degree to which the nation-state as a norm of social organization has distorted perceptions of, and views on, the 19th century is disturbing. This becomes particularly visible when looking at some of the older standard textbooks on this issue (Okey, 2002; Vocelka, 2000). Especially diversity on many different layers has been seen rather as a specific Central European obstacle than as a social, political and legal reality that could be encountered practically all over Europe (Ingrao, 2000 [1994], 6–22).

The problem is further aggravated by the dominance of a historiography, which considers the case of Germany as the most valid model for the application to Habsburg Central Europe. Recent works have repeatedly emphasized the particularities and individualities distinguishing Habsburg from German Central Europe (Göderle & Wallnig, 2019, 70–71). It is only lately that a fundamental revision has taken place, which has called the standard path of European nation-state genesis into question and led to some sort of rehabilitation of Central European history toward the backdrop of the more general development on the continent (Judson, 2016; Deak, 2015; Mazohl, 2015a; Mazohl, 2015b; Coen, 2018; Clark, 2012).

TERMINOLOGY AND THEORETICAL BACKGROUND

So-called *new imperial history* has proved useful in describing, analyzing and understanding empires and the complex processes these established, maintained and nourished (Fillafer, 2018; Ghosh, 2012; von Hirschhausen, 2015). *New imperial his-*

³ A vast body of literature gives evidence of the knowledge produced and circulated by members of this class, ranging from Baldacci to Scheda and beyond. Much of the written material, particularly from the very first decades of the 19th century, was published only decades later, yet its existence displays the degree to which this class appropriated the sphere of the written, tying in with the heritage of the république des lettres.

⁴ Among many others, Moritz Csáky, Johannes Feichtinger and Christopher Clark have repeatedly suggested such approaches with regard to Central Europe. Among the few complex approaches to break up the common narrative: cf. Gammerl, 2010.

tory comes with a limited yet powerful set of terms that allows particularly well for the description and comparison of imperial structures, specifically beyond the European/Western context, which is still a rare quality to be found (Cooper, 2005). I will operate primarily with the vocabulary and the toolkit provided by Burbank and Cooper as I consider their work among the most open and compatible with many adjoining fields of (yet not exclusively) historical scholarship (Burbank & Cooper, 2010). The following key terms will be put to use here: In new imperial history "empire" is used analytically and refers to a structure, featuring particular, clearly defined, qualities. In this text, "empire" must not be confused with "Empire" such as in "Austrian Empire", which is the most common English term for the Kaiserthum Oesterreich. Empire with a capital "e" will thus always refer to the specific context of the Habsburg (or another) Empire, whereas empire with a small "e" will be used as an analytical expression in order to be able to describe a particular form of the exercise of power. The same applies to the adjective "Imperial" respectively "imperial."

According to Jane Burbank and Frederick Cooper, empires and imperial rule evolve around five basic and recurring themes, three of which are important here: politics of difference, imperial agents and repertoires of power (Burbank & Cooper, 2010, 11 ff.).

With *new imperial history* being one point of departure for this article, I would like to present another observation as the second aspect that helped to identify the main hypothesis and the elaboration of the conclusions: *history of knowledge*. Unlike *new imperial history*, history of knowledge has so far not been turned into a relatively homogenous field of interest of historians, et al. A broad array of different approaches, methodologies, imaginations and theories of what this could be, dominate the scholarly discourse (Burke, 2012; Göderle & Pfaffenthaler, 2018; Landwehr, 2007; Müller-Wille, Reinhardt & Sommer, 2017; Sarasin, 2011; Speich Chassé & Gugerli, 2012; Vogel, 2004). The fact that history of knowledge developed slightly different notions in adjoining academic spaces – for instance the French, German-speaking and Anglophone worlds – does not particularly facilitate things. There appears to be very little common ground.

I suggest understanding knowledge as an important resource in the organization and maintenance of social ties, hierarchies and political rule; and as a product of a process of knowledge fabrication. It can be materialized, stored, reproduced; put to use in the context of the exercise of power or suppressed and destroyed (Raj, 2016). Rule without knowledge can prove near to impossible, a number of recent studies for the 18th and 19th centuries have made this very clear (Collin & Horstmann, 2004; Drobesch, 2009; Jesner, 2019; Scott, 1998; Tantner, 2007). In many cases, knowledge requires actualization and maintenance in order to remain effective; in any case, it commands a certain infrastructure in order to subsist.⁵ In the context of a long 19th century, we have to deal with two further terms: information (Bayly, 1996; Castells, 1989; Schaffer,

⁵ I am well aware that this definition is vague and of limited use to many other cases and in conflict with some of the definitions provided by current literature, though it should suffice the requirements of this article. I do consider particularly the material component as important here, as this is a point little stressed by many other studies. So is the aspect of infrastructure. Cf. Latour, 1999.

2009) - particularly well established in German academia with regard to Early Modern History -, and data - an expression that has gained some relevance and importance lately in the description and analysis of late 19th and 20th century knowledge-production (Brendecke, Friedrich & Friedrich, 2008; von Oertzen, 2017). Both terms, information and data, refer to fragments of what is covered by the expression knowledge. All three terms will be used analytically – thus not as terminology to be found in the sources but to describe and analyze certain sets of facts and circumstances in a clearly defined way - though each term refers to something slightly different. Knowledge is a final product, a resource that is usually generated in standardized procedures which can be reproduced and diffused, in most cases it includes either information or data or both. Information is an important resource for the production of knowledge particularly (though not only) in the context of administrative procedures, it is of a more limited scope and refers to very specific context. Data, becoming important in the course of the 19th century, refers to the most finely refined entity here, to (mass produced) fragmented pieces of information that require further processing in order to become either information or knowledge (or both) (von Oertzen, 2017, 5f.; Raj, 2016, 259-261).

Last but not least, this article takes up and adapts observations, analyses and assertive conclusions presented lately by Christopher Clark in his work on time and power in Prussia and strives to develop his argument further, so that it fits the specific conditions and configuration found for Habsburg Central Europe (Clark, 2019). Clark particularly emphasizes the role of different notions, imaginations and perceptions of temporality in Prussia and later Nazi Germany between the 17th and the 20th century. A few very sharp and lucid studies have opened this field of observation for the Habsburg case in the course of the past few years, yet much remains to be done here (Fillafer & Wallnig, 2016; Siemann, 2016). With the end of the ancien régime, a regime of temporality ended, with severe consequences for members of many different social groups. Aristocratic elites not only lost their status but very often their possessions and henceforth they lacked the immense degree of predictability that had allowed them to build dynasties and careers in the course of a century and more (Siemann, 2016, 31-57). Common people had been given a foretaste of what was to come already under Joseph II, who drastically reduced the holidays that had structured rural lifecycles for centuries (Duindam, 2003, 143). Yet, rulers were hoping to be able to successfully re-establish their claims to rule. Restoring the legitimacy of imperial rule required new narratives, the re-arrangement of existing narratives and the production of new knowledge capable of integrating old and new groups into the social order of empires (Schneider, 2015, 41 f.).

A SHORT RETROSPECTIVE: POSTWAR EUROPE AFTER 1815

When the Vienna Congress put an end to a quarter century of war and instability all over Europe and beyond, it claimed to restore the order of the *ancien régime*. Yet the restoration it delivered resembled the *ancien régime* only on the surface, the main outcome – the international system the congress created – was supposed to establish conditions and structures that could not only resist but also deal with any situation that resembled a major menace like the French Revolution. Historians and contemporary observers alike have

frequently failed to recognize the degree to which changes, innovations and reforms that became effective in the 25 years between the late 1780s and 1815 persisted in the post-1815 world, and to what extent the world had changed for many members of the century-old system of social elites, for instance for what used to be the Holy Roman Empire of German Nation (Planert, 2017). Yet, similar observations can be made in many places all over Europe, where substantial territorial changes had taken place. Some significant literature has been published lately, which explores in detail the impact hegemonial political narratives have had on Central European historiography and on its research questions, methodologies and boundary making (Fillafer & Wallnig, 2016, 11 ff.).

Not only had an era of revolutionary wars produced deep and far-reaching changes to the old Imperial world of the time before 1789, the new age beginning with 1815 required another substantial overhaul and modification of what was left of the structures and institutions safeguarding the power of European rulers. In the course of the Napoleonic Wars, many arrangements and social contracts of the *ancien régime* had either crumbled or proved hardly effective and had subsequently been replaced by more efficient systems and institutions. The integration and stabilization of proven solutions found and established during wartime did not take place before the aftermath of the war era in most cases. Ute Planert suggests analyzing and interpreting the decades after 1815 as a postwar era, thus focusing on the rebuilding of Empires, on the reconstruction and repair of social systems and networks and on the slow emergence of the new Imperial societies to crystallize in the course of the 19th century.6

This reconfiguration of imperial rule in the Austrian Empire provides the backdrop for the process under scrutiny, the production of the *Ethnographic Map* in the 1850s. What claimed to be the restoration of the *ancien régime* in Habsburg Central Europe turned out to become a large-scale modernization, overhaul and redefinition of imperial rule. There is a persistent tendency in Central European historiography to interpret the era still known as *Biedermeier* or *Vormärz* as a prolongation of the semi-millennium of well-established Habsburg dominance in the region and thus to consider it the long finale of an old order (Löffler, 2017, 123 f.). Yet, more recent research suggests considering this almost 35 year period neither a prolongation of a pre-French Revolution *ancien régime* nor a lengthy prelude to modern statehood in the region but rather a key period for the understanding of both the entire 18th and 19th centuries in Central Europe (Heindl, 2014, 145; Deak, 2015, 19–64; Godsey, 2004, 11 ff.; Judson, 2016, 51–102).

In many ways, Josephinist reforms (and reformers) lived on under the surface of what is frequently regarded as the reactionary rule of Francis II/I (Heindl, 1990, 200 ff.). Large operations considered to centralize more power and control in the hands of the sovereign, for instance the huge and expensive surveying and mapping procedures, continued or were renewed, administrative bodies installed by Joseph II remained in place, well qualified social risers pushed into the imperial administration, while at the same time members of the pre-1789 elites could not make it back to their former positions (Godsey, 2004, 2 ff.; Göderle, 2017, 168 ff.; Grečenková, 2004).

⁶ I refer to a lecture here, held at Graz University on 21 June 2018.

The first half of the 19th century did not only see an expansion of centralized administration, slow at first yet quickly gaining momentum towards the end of the 1840s, it also saw a rapid social transformation and the establishment of highly qualified, bourgeois or lower aristocratic experts in many key positions of the rebuilt imperial bureaucracy (Deak, 2015, 19–64; Brandt, 2014).

INFORMATION AND KNOWLEDGE: LUBRICANTS OF RULE

The insight that more direct and efficient rule required better information and new forms of knowledge was in no way new to Habsburg rulers in the beginning of the 19th century. On the contrary, since Maria Theresia more or less all rulers of the Habsburg Lands had participated in an ongoing effort to improve the knowledge base of their administrations (Stollberg-Rilinger, 2017, 178 ff.; Godsey, 2018). Their pursuits aimed at a better understanding and exploitation of information that was primarily at the disposal of manorial lords and estates who had little interest in sharing these resources.

Among the many imperial initiatives to improve the production and exploitation of knowledge, two particularly stood out: Land surveys and conscriptions, both started in the early second half of the 18th century, promised valuable information and actual yields in terms of taxation and recruiting (Anderson, 2006 [1983], 167 ff.; Göderle, 2016a, 86 ff.; Scott, 1998, 11 ff.). Thus, both processes were considered central to the modernization of imperial rule, yet both operations turned out to be expensive, difficult to manage and took up immense manpower. Neither the administrative infrastructure nor the educational levels of the personnel at hand proved sufficient; reliable results could not be delivered any time soon and the structural limitations presented by an empire of this age and size turned out to be a real challenge (Göderle, 2019, 103 ff.; Tantner, 2007, 109 ff.). It remains to be researched more thoroughly to what degree war actually helped the ruler's efforts. In many cases, one might get the impression that the practical constraints it presented could have helped to overcome legal and factual obstacles. Yet on the other hand, it put further pressure on limited resources (Siemann, 2016, 358 ff.; Vick, 2014, 233 ff.).

However, what turned out to be a most substantial problem to a stronger centralization of rule was the diversity of the individual entities of the empire, the vast array of different degrees of autonomy, and the manifold legal individualities (Schneider, 2015). The Habsburg Lands were hardly comparable among each other, there was no single language to describe and relate the different social realities they featured. The rise of Prussia in the first half of the 18th century had set new standards in terms of administrative efficiency and standardization, a benchmark that no other European power could attain. Prussia soon became an example and a model for innovation, yet, established and historically grown European empires faced severe challenges when it came to modernization according to this ideal (Hochedlinger, 2009, 73; Mazohl-Wallnig, 2005, 183–216). Implementing new administrative structures proved difficult, as these inevitably collided with well-founded older rights and privileges. Financing new building infrastructure and personnel turned out to be extremely challenging. The huge empires of the *ancien régime*, and this applied particularly to the Habsburg case, owed their

resilience to its immense flexibility and adaptability. The Habsburg rule stretched over a large bundle of different territories, the degrees to which these were directly controlled by the respective rulers, varied largely and so did the degree of integration among these. It was only under Charles VI at the very beginning of the 18th century that a consolidation process had been launched, culminating in the construction of a basic road infrastructure. Maria Theresia drew on these fundamentals of centralization and launched a building program, which was supposed to create hosting for services of the central administration in the provinces.

These milestones – road and canal construction, erection of administrative buildings – are well known among historians, though not excessively well researched. Common and popular textbooks mention them, yet little reference is made to the fact that the 18th century only saw the launch of the construction of infrastructure that more often than not turned out to be a never-ending story (Helmedach, 2002; van Laak, 2018). Roads and buildings not only took decades to complete but also required permanent upkeep and expansion. The time lapse between the beginning of a building project and its entry into service was enormous. Thus, an event-based historiographical approach to these issues is conceivably unsuitable. Roads and official buildings were soon to form part of what was to become the backbone for the collection, transmission, distribution and processing of information and knowledge.

The aspect of time has to be kept in mind when it comes to the analysis of the transformation of imperial rule in the course of the 18th century, particularly with regard to the mid-19th century appropriated by Czoernig and his peers. Although Czoernig is unquestionably the key figure in this article, I would like to emphasize that this text is not about him as a person but about what he represented. He was a fairly representative member of a social class that rose from the ashes of the ancien régime, as it could provide empires in a profound state of crisis with a resource central to the re-establishment, re-organization and re-definition of imperial rule: knowledge. Men like Czoernig could generate, administrate and update enormous configurations of this most valuable matter – allowing for the exercise of power and the upkeep of imperial authority and legitimacy. Czoernig and his peers were responsible for the large-scale production of a highly effective form of knowledge and for putting it down on paper. Paper was supposed to be more patient, resilient and obedient than the huge apparatus serving indirect rule, with several layers of lords pursuing respective individual interests and tiresome negotiations where no imperial ruler could ever have full access to the valuable information and data his rule was based upon.

Already before 1815, the rebuilding of empires flushed larger numbers of men, who would not have had prospects of more remarkable careers in imperial administrations in the *ancien régime*, into the ranks of authorities and institutions grappling with the survival of the enormous political structures they were supposed to serve (Godsey,

A second aspect of time should be considered here, spatial time: More or less distinct lags occurred between the introduction of certain technologies and innovations respectively the emergence of certain debates and discourses between different communication spaces, as for instance Prussia and the non-Habsburg German-speaking lands, or France and Habsburg Central Europe (Twellmann, 2014, 113; Göderle & Wallnig, 2019, 67 ff.; Coen, 2018, 7 ff.).

2009; Grečenková, 2004; Karstens, 2011). In the course of a quarter of a century, the availability of the resource these men formed for the empire, and its capacity to hire and to integrate them into its ranks, appears to have been a crucial factor in its renewal and redefinition.

THE RENEWAL OF AN EMPIRE

As Czoernig himself stated in his publication *Oesterreichs Neugestaltung*, the Austrian Empire (in German: *Kaiserthum Oesterreich*) had undergone more severe and far-reaching changes in the ten years between 1848 and 1858 than in the century between 1848 and 1758 (Czoernig, 1858, IV). His assessment is remarkable, given that the empire had seen almost a quarter of a century of war in the latter period, and undergone tremendous change. It had felt the consequences of the French Revolution, the Holy Roman Empire of German Nation had disintegrated after almost a millennium of existence and the loose confederation of lands, controlled by the Habsburg, had become something more resembling of a state, at least in the eyes of high-ranking officials such as Czoernig. Last but not least: ancient social institutions, such as the imperial aristocracy, had lost much of their standing, power and influence and it was their stepping down that finally allowed men like Czoernig to advance into positions that would have been all but attainable only one hundred years earlier.

Czoernig's depiction thus represents a fine rhetorical masterpiece. He boldly explains to his readership that true progress and reform in Central Europe had only been achieved in the decade of neoabsolutist rule that started in 1848 with a regime that finally ended the Alte Reich, menaced by a tremendous movement ("gewaltige Bewegung"), which shattered it in its existence ("welche das Reich erschütterte [...] [und] seinen Bestand bedrohte [...]") (Czoernig, 1858, IV). According to Czoernig, it was the protection of providence and its own spirit ("unter dem Schutze der Vorsehung mit Hilfe der eigenen Thatkraft") that led to the restoration of law and order and to the establishment of a new life of the state with an equalization of all citizens ("zu der Wiederherstellung des Rechtes und der Ordnung, zu der Begründung eines neuen staatlichen Lebens mit der Gleichstellung aller Staatsbürger [...] [führte]") (Czoernig, 1858, IV). This daring assessment of the situation is further continued in the next paragraph when Czoernig declares that new circumstances were created by mastering the movement (thus the 1848 Revolution), and outdated conditions, not in line with present requirements, fell victim to these ("Neue Verhältnisse waren durch die Bewältigung der Bewegung entstanden, und veraltete Zustände, mit den Anforderungen der Gegenwart unvereinbar, waren ihr zum Opfer gefallen") (Czoernig, 1858, V). As striking as Czoernig's euphemistic phrasing of the 1848 Revolution appears, his appraisal of the situation in the late 1850s is optimistic: The new conditions required a new regulation of the constitution, the legislation and the administration. [...] [N]one of the public circumstances remained untouched by reform ("Die neuen Zustände erforderten eine neue Regelung der Verfassung, der Gesetzgebung und der Verwaltung. [...] [K]eines der öffentlichen Verhältnisse [blieb] von der Reform unberührt [...].") (Czoernig, 1858, V). He continued: Nine years of successful work were sufficient, to create a building which – if not yet completed in all details - reached a scope that otherwise centuries could not accomplish ("Neun

Jahre erfolgreicher Thätigkeit reichten hin, ein Gebäude zu errichten, welches, wenn auch noch nicht in allen seinen Einzelheiten vollendet, zu einem Umfange gediehen ist, den sonst Jahrhunderte nicht zustandebrachten.") (Czoernig, 1858, V). Given much of the standard textbook literature on Habsburg Central Europe published in the later 19th and over most of the 20th centuries, one might start to believe that Czoernig was a keen propagator of what has come to be known as "alternative facts." Yet things are more complicated than that, not only was Czoernig a renowned and much respected civil servant, scholar and maybe politician, his work earned him a lot of acknowledgement and until the end of the Habsburg Monarchy, elite bureaucrats and politicians believed his ethnographic studies - and Oesterreichs Neugestaltung merely expanded and extended his Ethnographische Karte, building on much of the same material - to be the finest work to have been ever undertaken on the linguistic and ethnographic composition of the empire as late as in the early 20th century (Brix, 1982, 71). Czoernig's work thus represented not only a fresh and somewhat radical interpretation of the imperial redefinition that was effected during the neo-absolutist era; it also exemplified the perspective of a new perspective on Central Europe. It was the perspective of the growing (bourgeois) middle-class, disproportionally represented in the inflated apparatus of the imperial central administration, the group that Czoernig actually addressed with his works (Göderle, 2016b, 63 ff.; Judson, 2016, 155 ff.).

Skillfully, Czoernig tried to reconcile two practically irreconcilable interests: He first and foremost legitimized the imperial rule as was exercised by Francis Joseph, praising it as a rule of wisdom, backed by the law and confirmed by the order it brought about. Yet in the same paragraph, he wrote about constitution, equalization and citizens, instead of subjects. He intrinsically linked two taboos: The legitimacy of Habsburg imperial rule and constitutionalism, including civil rights. These were two arguments that were not supposed to be emphasized in one book.

REDEFINING LEGITIMATE IMPERIAL RULE

Czoernig's work stated the legitimacy of Habsburg imperial rule when most other stakeholders of what used to be the Central European empire – particularly members of the old social elites, of the aristocracy – had to grapple with comprehensive adaptations of their respective roles (Godsey, 2004; Labbé, 2011). Redefining empire and maintaining order meant abandoning institutions and discontinuing relations going back centuries and replacing both with new organizations and with new social ties. One could expect this massive intervention into a centuries-old social fabric to meet fierce resistance. Yet, whatever resistance there was against the large-scale administrative and political transformation of the empire that Czoernig stated in very clear and unambiguous words, it did not address the key operations and the major processes which provided for shifting the power balance. Why was this so?

Czoernig's argument was clear and built on evidence which was provided by an immense body of knowledge, gathered mainly by himself and fellow colleagues of similar backgrounds, employed in the imperial administration (Kamusella, 2012 [2008]). The evidence collected and presented had been put together and scrutinized according to contemporary scholarly and scientific standards. The knowledge gener-

ated by these men – the new administrative elites of the empire – owed its credibility, value and practicability to the outstanding standards of quality it complied with. Neither the maps nor the statistic tables on Central Europe, that became more widely distributed from the beginning of the 1840s onward, could easily be criticized (Hansen, 2015). They rendered social facts visible to those privileged to be granted access to the material and they allowed for interpretation. According to recent literature, maps materialized claims, rule and political order (Krämer, 2008, 302).⁸

If one takes a closer look at *Oesterreich's Neugestaltung*, the tightly knit connection between the material evidence on Central European populations gathered, processed and put on display by Czoernig and his colleagues, the interpretation chosen by these men becomes visible. Whereas this interpretation might well have offered space for critique, the material base alone did not, for several reasons. First, very little information was actually accessible concerning the details on the compilation of the data. Second, few people would have been sufficiently qualified to call into question what elite administrators all over Europe produced: The few well qualified men in the dynamic and quickly growing field, developing rapidly from what used to be Staatswissenschaften only a few decades earlier, were hardly to be found outside the bourgeois circles of high-ranking civil-servants. Many well-qualified men from the ranks of the lower aristocracy of the ancien régime chose the ranks of the new and growing middle-classes over being the third wheel on the wagon of an aristocracy currently in free fall. Thus, those who were supposedly most affected by the consequences of Oesterreich's Neugestaltung were in no good position to counter the attack launched by the imperial administration directly on the field. One might even raise the question if the degree of menace that emanated from maps and tables was even realized by an aristocratic class still dealing with the consequences of the Napoleonic Wars (Godsey, 2004, 141 ff.).

The emperor himself on the other hand was deeply involved with this enterprise. None of the Habsburg rulers of the first half of the 19th century had a remotely untroubled relationship with science and scholarship – a deep-rooted aversion to Josephinist reforms played a role here – yet all of them displayed hesitant tolerance at one point or another. Long-serving civil-servants frequently knew very well to what degree they could proceed with their advances and when it was necessary to stop (Heindl, 1990).

A convolute of maps and tables thus generated a new material reality in the offices and bureaus of the central administration of the Habsburg Monarchy after 1848. It created new and iconic images of what the state (as this is the expression Czoernig chose to use in most of his works) looked like and it consolidated this picture as intrinsically diverse (Labbé, 2004, 71 f.).

INTERPRETING MATERIAL, MAKING CHOICES: HOW TO FIND DIVERSITY

The 1830s and 1840s had seen rapid and massive advances in the generation and representation of population-related data. Long-range mapping operations that had been

⁸ Some work by Bruno Latour appears to be particularly useful in describing and scrutinizing the details of this materialization (Latour, 1999; further Latour & Woolgar, 1979; Latour, 1987).

(re)launched in many places all over Europe towards the end of the Napoleonic Wars had amassed sufficient material, which provided for first assemblages of high-quality topographic and administrative maps (Göderle, 2017, 178 ff.). At the same time, the ongoing collection of information that could be processed into statistically presentable and exploitable data yielded respectable results. Unlike the cartographic material that was mostly funded by, and associated with, official mapping activities, statistical undertakings usually referred to "private" initiatives and collected information that was only loosely connected with the central domains of imperial rule (Bourguet, 1988; Desrosières, 2010 [1993]).9

The (predominantly) men involved with the collection of information and the generation of data in the 1830s and 1840s were often part of larger, loose, informal transimperial networks (Schär, 2015, 12–14). They communicated among each other and adhered to certain quality standards. As will be shown, most of these men shared a certain sociocultural background. Standardization and normalization of the procedures put to use in mapping came with the travelling of key innovations across imperial borders, a process that had already begun much earlier though not at the rate that could be observed toward the end of the first half of the 19th century (Harley, 2001). Issues remained more open with regard to statistical knowledge, as different administrations had diverging and often hesitant strategies when it came to the support they were willing to grant the collection and exploitation of statistical information (Zeller, 1979, 20 ff.). Despite these difficulties, the quality levels of maps and statistics produced in the European imperial arena on, below and beyond the official activities around 1850 were surprisingly high. The same applies to the compatibility of the materials produced, on some level, most of the resources were complementary (Anderson, 1998, 29).

Yet, and this is an important point, the consensus did not stretch so far that it covered the interpretation of the data produced. Whatever material and evidence was produced by agents like Czoernig and his peers, what these representations were supposed to mean required interpretation, and the common people – that is all who were no experts – relied on specialist guidance. Whereas military personnel, many civil-servants, politicians, many aristocrats and rulers had made themselves familiar with the predominant media of the scientific-administrative discourse of the first half of the 19th century – predominantly maps and statistical tables – in the course of the 18th and 19th centuries, many others were swamped with the imposition these new matters represented (Göderle, 2016a, 258 ff.; Tantner, 2007).

The immense density of information, these media contained, and the enormous degree of complexity, were thus countered by the compulsion to reduce these to dimensions which made the material at least readable. Careful selection of the information to be displayed, purification and processing of the raw data, and a careful choice of the means of illustration at the disposal of the people responsible; maps and statistical tables were extremely complex tools of knowledge conveyance. Its use required an enormous degree of expertise and know-how, in no way were its contents

⁹ I put "private" in quotation marks here, as I will show in one following chapter how difficult it actually is to reconstruct a clear frontier between private and public for those agents who were mainly concerned with such operations of knowledge generation.

arbitrarily, self-arranging or self-explanatory (Wood, 1992, 70–88). Czoernig and his colleagues, who were to take over the roles of very powerful knowledge-brokers, carefully selected their data and made well-considered choices, in order to evoke the desired images and to produce certain impressions.

In the 1840s and 1850s, this aspect of the generation of knowledge was not yet considered part of the normalized and standardized process of data gathering and processing. The interpretation of the generated and arranged mass-data remained in the competence of respective administrations and in many cases – particularly when it came to the large private statistical endeavors – of private or semi-private scholars. The 1840s and 1850s provide ample opportunity to observe how similarly structured convolutes of data were put to use to stress much different interpretations of the material. Czoernig chose – for reasons that will have to be discussed here – to stress the point of natural diversity and heterogeneity (Coen, 2018, 12–13). Many of his colleagues all over Europe opted to emphasize homogeneity and national unity when dealing with similarly structured data (Hansen, 2015).

TRUTH-TO-NATURE AND WHAT IT COULD MEAN

In a magisterial study, Lorraine Daston and Peter Galison exemplified the establishment of common standards of scientific objectivity in a European context from the 18th century on (Daston & Galison, 2007). Although their work remains limited in scope – it focusses exclusively on questions of objectivity in illustrations in atlases – *truth-to-nature* can easily be identified as the standard of objectivity the entire field of early 19th-century-mapmaking adhered to. The major questions to be asked in this context kept popping up in the entire process surrounding the production of the *Ethnographic Map* and in order to enable readers of the publication to comprehend the problems Czoernig saw himself confronted with, considerable space was given to these issues.

While Czoernig displayed an open attitude toward the information and data that provided the basis of the knowledge that he generated on the *Kaiserstaat* (inadequately translated as "Austrian Empire"), he chose a more authoritarian style of exhibition when it came to the presentation of his conclusions and inferences. The entire laboriously collected evidence formed the basis of one major and dominant narrative: Czoernig used the ethnographic material to prove a new historical narrative, elaborately interweaving the very old and traditional imperial historiography with a massive convolute of social and settlement history (Coen, 2018, 17–18; Twellmann, 2014, 113). By (frequently arbitrarily) connecting mythic and halfmythic strands of the glorious Habsburg family history with a broad array of quite recent findings and discoveries from a range of neighboring scientific disciplines, he outlined a broader historical narrative which fully included older and official versions of the ruler's respective self-understanding. He also offered a space for

¹⁰ It has to be mentioned here that the process under scrutiny should be dealt with from a global perspective: The most impressive and relevant work on shared standards in knowledge production outside Europe and probably the most important contribution to our understanding of this comes from Kapil Raj (Raj, 2007), further scholars added to his work (Sivasundaram, 2010).

those not present in historiography so far, to identify themselves with a *Kaiserstaat* that reached – at least in Czoernig's imagination – far deeper into the past, beyond its official foundation in 1804.

The *Ethnographic Map* formed an uncontestable piece of material evidence, which proved that the Austrian Empire was composed of a large number of different *tribes*. This part was sound scientific fact, according to the respective contemporary standards in statistics, ethnography and cartography. Yet, in his interpretation of the rich material he had collected, Czoernig went one step further, by connecting this evidence with one much older and distinctly unscientific knowledge base, the Habsburg family version of its own history and another relatively recent and sparsely documented chunk of knowledge, the entire backdrop of a popular history in the making.¹¹

Czoernig's mission statement, opening his *Ethnographic Map*, already leaves little doubt about the direction of his major argument:

All main tribes of the European population meet inside the empire's borders, here they form compact groups, permeate each other in most diverse national coloration, and build ethnographic groups and islands, which, in most colorful mixture, express the nowhere else to be found uniqueness of the populace of Austria. Yet, it is not this mélange of peoples alone, which establishes this peculiarity; this is effected rather by the formidable proportions in which the main tribes are represented, so that they equal each other in number and in the inner force of the respective peoples, further the nuances of the different degrees of civilization balance each other; in their alliance, not in their subordination they form the foundation, on which rests the building that is the state (Czoernig, 1857, V).¹²

This passage from the introduction to the *Ethnographic Map* makes it difficult to comprehend how Czoernig's work could be considered a scientific standard even 20 and more years after its publication. Yet, it holds the key to a more profound understanding of science in the 1840s and 1850s as one field of action beside others, in the professional lives of men such as Czoernig. As will be shown in the next chapter, Czoernig stood out as a politician, as a writer, as a statistician (which is what made him a scientist in the perspective of his contemporaries), as a top official, and as a private scholar. However, none of his many different roles allowed him to remove himself completely from the fact that he was, above all, a subject of his emperor, or a citizen of the state.

¹¹ Deborah Coen states that the "vitality of Renaissance cosmologies" was maintained in the Habsburg lands (Coen, 2018, 18), a most learned observation.

¹² The original text states: "Alle Hauptstämme der Bevölkerung Europa's begegnen sich in dem Umfange des Reiches, bilden hier compacte Massen, durchdringen dort in verschiedenster nationaler Färbung einander, und gestalten sich zu ethnographischen Gruppen und Inseln, welche in buntester Mischung die nirgend anderswo wieder zu findende Eigenthümlichkeit des Völkerbestandes von Oesterreich ausdrücken. Aber nicht allein die Völkermischung ist es, welche diese Eigenthümlichkeit begründet; es geschieht dieses hauptsächlich durch die grossartigen Verhältnisse, in denen die Hauptvölkerstämme auftreten, so dass sie einander durch Zahl und innere Kraft der einzelnen Völker, sowie durch die Abstufungen der Civilisation das Gleichgewicht halten, und in ihrer Vereinigung, nicht in ihrer Unterordnung, die Grundfesten bilden, auf denen das Staatsgebäude ruht."

KARL VON CZOERNIG: AN EXCEPTIONAL CIVIL SERVANT?

Who was Karl von Czoernig? He served as a Sections-Chef at the time when his most important work was published. He was thus a head of department in the Ministry of Trade and Commerce which was a relatively high function in the new Central Administration, directly below the minister. Czoernig appears in many ways well representative of the administrative elite featured in Habsburg Central Europe in the aftermath of the Napoleonic Wars: born in 1804 into a middle-class family in Černousy (then Bohemia, today the Czech Republic), he was the son of an administrator himself. His father was in charge of an estate of the Clam-Gallas family. His mother was the daughter of a textile fabricant. After finishing grammar school, Czoernig studied Rechts- und Staatswissenschaften (law, governance and public policy) at the universities of Prague and Vienna where he soon stood out as an excellent student with a broad interest in a range of different subjects related to his curriculum. Due to the study and examination regulations of the time, studying law covered a much broader field, including contemporary political economy, political science but also statistical reasoning and knowledge representation. It was the latter fields that kindled Czoernig's interest which earned him the distinction of being considered "Austria's future Dupin" by his academic teacher Joseph Ritter von Kudler (Göbl, 2008; Göderle, 2018, 199 ff.; Rumpler, 2010).

In 1828, Czoernig started a career as a civil-servant to the Habsburg Empire in Trieste, an employment that seems to have allowed him ample liberties to develop some comprehensive part-time work. His *Topographisch-historisch-statistische Beschreibung von Reichenberg. Nebst einem Anhange: Die Beschreibung von Gablonz enthaltend*, which was considered literature at the time of publication, already contained many of those elements, connections and underlying thoughts that were to characterize Czoernig's later and better-known books. Over a total of 200 pages, Czoernig developed his argument building on an extensive collection of information and data on trade and economic activities. This was then connected with profound knowledge on the topography of the region by a historical account and reasoning on the demography and population of the Bohemian town of Reichenberg, not far from where he was born and raised. The book was published in 1829 and it was to be followed by a number of similarly structured publications in the years to come.

Meanwhile, his career continued: After only two years in Trieste, he moved on to Milan, where he was quickly appointed the secretary of the governor Count Hartig. Czoernig smoothly blended into the intellectual life of the Lombardian capital, soon developing a large circle of contacts and friends with whom he communicated quick-wittedly and casually in several languages. Although he was already a high-ranking member of the provincial administration and had an active social life, he seems to have found sufficient time to continue his secondary business as an author, scholar, statistician and topographer. He was a highly productive publisher of books in the style that has already been presented here: his mélange of geographic, economic and demographic information, presented in picturesque topographic images and statistical tables, accompanied by learned texts illustrating historical and social connections, contributed to the stream of new knowledge that slowly became available to the larger

middle-class of Central Europe and beyond in the course of the 1830s and 1840s. It was a quality of knowledge that shifted well-established ideas and firm beliefs regarding the fundamentals of the social and political constitution of imperial Europe, in a post-war era, when larger parts of a growing literate public slowly realized that the past half-century constituted the beginning of a lasting caesura.

In 1841, Czoernig was called back to Vienna, the capital, though not the only center of the recovering Empire, where he took over the Department of Administrative Statistics. 13 Although other candidates for the job might have been better qualified, Czoernig had plenty of practical experience and knew the administrative service well. He grew close to his superior, Karl Friedrich Kübeck, Freiherr von Kübau, which turned out helpful in the years to come. Czoernig, an experienced knowledge engineer by that time, well-practiced in the collection, processing and arrangement of knowledge, produced from data and information gathered from a large number of different sources, then had access not only to the most intimate and secret knowledge that the Austrian Empire then had at its disposal with regard to its topography and statistics, he also came in closer contact with the larger group of other officials occupied with the production and representation of the knowledge that was considered crucial in the modernization of the state.

For the years to come, Czoernig was well occupied with re-dimensioning and reorganizing the official statistics of the Austrian Empire, an institution that had so far only been allowed to produce little information for a very small public consisting mainly of top-ranking civil-servants and political decision-makers. Concurrently he entered new fields of activity beginning with his involvement with the niederösterreichischen Gewerbeverein (trade association of Lower-Austria), then the Capitalien- und Rentenversicherungsanstalt (capital and pension insurance institution), and the Vienna-Gloggnitz-Railway but especially with the administration of the Donau-Dampfschifffahrts-Gesellschaft (Danube steamship company). The latter started to thrive at that time. This put Czoernig right in the middle of a mild economic boom, which started to transform the economic and social structures of Central Europe in the long run.

Besides his involvement with the economic development of what now turned out to be the new commercial and industrial heartland of the Empire – parts of Bohemia and Lower Austria, including Vienna, plus a part of Styria – Czoernig further climbed the ranks of imperial administration and was appointed "Hofrath" (court advisor, a honorary title for high ranking civil servants in Habsburg central Europe) in 1846. Moreover, on top of all this, Czoernig was elected to the Frankfurt Parliament in 1848 by his Bohemian electoral circle, a position he had not applied for. Frankfurt turned out to be only a short interlude in his career – he joined the Café Milani fraction and took a mildly conservative position, yet upon returning to Vienna, he was to take on a responsible task in rebuilding, reordering and expanding the new post-1848 central administration.

¹³ Milan, for instance, was a self-confident and proud rival of Vienna at that time, at least this assumption appears to be admissible given the fact that the center of mapmaking in the Habsburg Empire was there and it further represented one of the most important trade capitals of Europe.

Not only was his department moved and became part of the newly founded *Ministerium für Handel, Gewerbe und öffentliche Bauten* (Ministry of Trade, Commerce and Public Buildings), which supposedly meant a repositioning of statistics in the imperial hierarchy: Statistics was moved much closer to political decision-making, being part of a ministry that was to take a crucial role in decisively developing the economic capacities of an Austrian Empire which was, at least on the level of its political leadership, more and more considered a single economic sphere. The knowledge produced and provided by statisticians was considered a resource to that end – ongoing economic integration and development. Czoernig was promoted again, to Sections-Chef, yet more importantly, he appears to have established himself as a troubleshooter of great class by the early 1850s.

Between 1850 and 1852, he was sent to Trieste to take charge of the establishment of a new authority, the *Central-Seebehörde* (Central Sea Authority). Furthermore, he held the responsibility for the *Zolldepartment* (Customs Department) and the *Bauarchiv* (building archive). The latter function included full responsibility for the further development of the railway and canal network. Given that this was the time when Czoernig was also completing his comprehensive *Ethnographie*, the question arises as to how he was able to cope with such sets of responsibilities and duties.

Towards the end of the 1850s, when the spirit of *neoabsolutism* slowly receded, Czoernig's career took a slow turn in another direction. Although there is still much to be researched in detail – so far, no extensive biography of Czoernig has been written – there is good reason to assume that Czoernig's proactive role in the establishment and advancement of what was later to be coined the neo-absolutist experiment turned out to be fatal towards the final years of his civil service employment. He retired in 1865, officially due to his weak state of health, and moved into his Gorizia mansion where he continued to publish and devoted much of his time and energy to the study of Istria, particularly its languages and linguistic diversity. He died in 1889, aged 85.

THE SOCIAL FABRIC OF RENEWED EMPIRE: A PROSOPOGRAPHY

Recent studies and research support the assumption that Czoernig was less a stellar and outstanding example of an exceptional civil servant of the early and mid-19th century Habsburg Monarchy than it might appear at first view. On the contrary, he seems to have been a somehow classic representative of a group that seized a unique opportunity to raise its profile and to take up a new position in an empire on the verge of redefinition.

The members of this large and mixed group all had certain distinctive features; they shared assets that made them indispensable to imperial rule under circumstances of modernization. At the same time, they came upon particularly favorable conditions. I am going to explore these two points in the following chapter.

Karl von Czoernig was just one of a large number of men who shared distinctive traits and qualities. Although generalization does not appear to be a good way here, it is striking that the overwhelming majority of Czoernig's contemporaries who were highflyers in the imperial civil service, had received an excellent education. In many cases they had either attended the well-known Viennese *Theresianum* – a renowned

public grammar school – or one of the well-recognized provincial grammar schools – to be found in most smaller towns – and this paved the way either directly into the ranks of administration or into university education.

Both public grammar schools and universities at the time offered study and education programs that provided particularly the sons of bourgeois and petit-bourgeois families with much requested and highly standardized knowledge. The afore-mentioned study cycle *Rechts- und Staatswissenschaften* presents us with an excellent example of this: Its graduates were familiarized with an enormous range of relevant intellectual tendencies. Study curricula invited students to ask broader questions. Polymaths such as Czoernig seem to have been actively encouraged to pursue different paths.

The slow demise of the *ancién regime*, which forced rulers to replace the established imperial agents with new ones, opened up opportunities to well qualified middle-class social climbers. In an age of disorder and chaos, they offered stability and continuity to rulers and due to the wartime, the middle-classes could access positions in the administration that would have formerly been inaccessible to them.

Yet, education is not the only important factor here. The family background appears to have played a role, and a certain geographic denomination. I will deal with the family background first. Like Czoernig, who was the son of a man who had been in the service of the noble Clam-Gallas family, many of the young men who entered the expanding imperial administration in the early decades of the 19th century had a history with ancien régime social elites. With the demise of the centuries-old order, many among those who had been working with, and for the aristocracy of the Alte Reich, lost their jobs. Many went over to employment with the emperor, taking with them most valuable informal and practical knowledge. Although such careers seem to have worked best with the sons of former landlords' servants and employees, there were a few cases where careers actually could be continued under a new master, although this was neither the rule nor does it seem to have been very easy. Nevertheless, many sons of former administrative elites of the Stände (estates) combined an intimate inherited knowledge of the social rules and conventions of imperial rule with state-of-the-art education, and thus became highly employable for imperial rulers trying to reset their regimes. With the number of (in most cases: badly paid) job-openings in imperial administrations soaring, a huge set of fresh minds, fueled by moderately new ideas, yet aware of the old, strict and mostly unwritten social rules, took charge of the development.

In terms of geography, two aspects stand out: First, a considerable number of catholic emigres, particularly from the Rhineland, though from other parts of the non-Habsburg Central European lands as well, moved to Vienna and in many cases managed to rebuild their lives there (Godsey, 2004, 141 ff.). A closer look at the knowledge, innovations, perspectives and forms of sociability they imported could be promising. Second, the enormous role of new social elites originating from Bohemia can hardly be overestimated. I refer to Christine Lebeau here, who recently observed that Bohemia took up a new and important role under Maria Theresia (whereas her father Charles VI had devoted many resources and much attention to

the Mediterranean). It would be interesting to scrutinize in more detail what this quantitative "Bohemianization" of the Habsburg Empire meant in the long run in the 19th century.

An important though little analyzed aspect is the more general background of bourgeois life in the early 19th century, more precisely in the post-war decades of the Napoleonic Wars. The lives of men like Czoernig, his contemporary Hügel, but also of men of an aristocratic background such as Andrian-Werburg, seem to have been determined by conditions that were in general favorable to those who were not completely depleted of financial means. Little information is available on Czoernig, though he spent the last quarter century of his life in his estate in Gorizia. Carl von Hügel, born in 1795, joined the Habsburg army aged only 16 and retreated into private life after the war. He built himself a remarkable home in the Hietzing outskirts of Vienna, although there does not appear to have been considerable wealth. Both men, Czoernig and Hügel, spent most of their professional careers in the imperial service, which was not supposed to make anyone rich. Slightly different is the case of Andrian-Werburg: he kept complaining about his regrettable financial situation in his diaries, yet a closer look at his lifestyle and particularly his travelling habits allows us to conclude that he by no means led a life of material poverty.¹⁴

I suggest sticking to a working hypothesis that simply states that it appears to have been relatively easy for members of the bourgeois middle-classes in the first half of the 19th century to satisfy their primary needs and to pay for a simple livelihood. Members of this group even appear to have been privileged when it comes to the acquisition of real estate.¹⁵

IMPERIAL AGENTS, BROKERS OF KNOWLEDGE

Men like Czoernig were often considered early pioneers of modern science in research literature. I would like to propose a different interpretation, by pointing to the versatility, multi-faceted and professional flexibility that he and many of his contemporaries displayed in the era between c. 1820 and c. 1860. The majority of these men were neither professional scientists nor full-time administrators – even if their rotas might have suggested otherwise. They were no full-time artists, writers or statisticians, as modern historiography in retrospective often concluded.

Czoernig and his peers and contemporaries benefited greatly from those liberties in personal life that the cultural remains of the *ancien régime* granted them, a singular professional denomination or "identity" was not required. Characters like Czoernig or Hügel illustrate this in a most impressive manner: Czoernig was a private scholar, a scientist, a politician, a civil-servant, a writer, he successfully combined several of these roles at a time and given his productivity and output, we have to assume that it did not take him a lot

¹⁴ This does of course, not mean that Andrian-Werburg led the life his peers would have expected him to lead. The point I am trying to make here is that it seems to have been relatively easy, at least for members of the middle-classes, to secure a subsistence minimum. Thus, many were able to fare better. At least the prosopographical analysis prompts this conclusion and it suggests one can suppose that this might have to do with an array of different qualifications and competences.

¹⁵ See for instance the Hügel-family and its members, especially Carl Alexander von Hügel.

of time to change between roles. The same applies to Hügel who was a traveler, a scholar, a soldier, a spy, a diplomate, an author. What is more important here: There is no evidence that these men did a lot of thinking on different roles in different endeavors, they appear to have combined the multitude of businesses they pursued tirelessly, although there seems to have been some fine understanding concerning the advantages and chances of arguing from a scientific point of view in one situation and from an administrative viewpoint in another – this is particularly the case with Czoernig.

Yet, and this is my argument here, when members of an emerging middle-class spread life-risks by going into different businesses at the same time, even when they were pursuing two or three different professional tracks at a time, this was not automatically considered a problem. Some, like Czoernig, got themselves into positions of some power by skillfully managing expert knowledge in a broad range of different fields. He, particularly, seems to have made use of his advantage when he managed to mobilize imperial support for his research agenda and granted the emperor scientific support for his political agenda.

Whereas Czoernig and his contemporaries successfully expanded middle-class participation in several fields, politics, economy and social standing for instance, this window of opportunity, when administrators and the emperor acted as resources for each other, soon closed (Göderle, 2016b, 87 f.). Czoernig's successors in the statistical authority already had less say and authority, and when in the 1880s a full-scale scientist took charge of the office, the development was completely in line with an international trend of professionalization and particularization. It is, however, important to keep in mind that this is a trend that does not become visible in the evidence much before the 1880s, at least in the Habsburg Empire (Judson, 2016, 9 f.).

At this point, *ibridismo* comes back: Middle-class agents in the late 19th century, many of whom were involved with the language conflicts that began to erupt in the course of the 1880s, considered Czoernig's *Ethnographie* a better and scientific more sound source concerning the *authentic* – whatever this means in this context – distribution of different language groups in the Habsburg Monarchy than anything official statistics had produced later. In retrospective, Czoernig was made a full-scale scientist in the idealized conception of the 1880s, a pioneer of a standard of objectivity he never adhered to: *mechanical objectivity*.

When Czoernig and his fellow statisticians and cartographers rebuilt imperial Europe in the aftermath of the Napoleonic Wars from the debris of an *ancien régime*, they set up new and powerful knowledge configurations that were to construct helpful narratives and to restructure social orders. The newly formed alliance between imperial rule and middle-class go-betweens proved so effective that its reverberations had a lasting impact on the developments in the 20th century.

Yet, what turned out to be even more striking was the establishment of a common way of representing, reading and interpreting fundamental knowledge on the composition and order of social, cultural, and in the long-term political correlations by means of maps that moved *ethnography* into the foreground. Although it does not become quite clear with Czoernig what he understands by this term, he participates in the joint transimperial effort of officials, scholars, writers, proto-scientists to establish the primary category of difference between people along the language lines. Unlike what the ethnographic maps of the mid-19th century suggest, and Czoernig remarks

ACTA HISTRIAE • 28 • 2020 • 4

Wolfgang GÖDERLE: POSTWAR: THE SOCIAL TRANSFORMATION OF EMPIRE IN 19TH CENTURY EUROPE ..., 511–540

upon this, things were not remotely as clear; sorting, regrouping and ordering the complex heritage of imperial rule under conditions of modernization was a complex and, to a certain degree, pointless task.

Very much like the ideal representative of modern science, Czoernig and his contemporaries thus reduced complexity and heightened contrasts; they consolidated groups and re-drew boundaries. Yet in the end, when clear decisions had to be made and arguments required a final touch, comparable material evidence led to different results, due to fundamentally divergent lines of interpretation: Whereas Czoernig stressed diversity and anticipated the discourse on *ibridismo*, to come decades later, most of his colleagues, particularly in Prussia, went with one or another idea of unity based on nation. A new field of controversy opened up, and the powerful and colorful representations put forward by the representatives of the opposing adversaries, crept into the minds of a quickly growing literate public.

POVOJNA SOCIALNA TRANSFORMACIJA HABSBURŠKE MONARHIJE V 19. STOLETJU. ZNANOST. HIBRIDNOST IN ZAKONITOST CESARSKIH ZAKONOV

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POVZETEK

Napoleonova povojna doba označuje priložnost socialnih vzhodnikov meščanskega, nižjega srednjega sloja in nižjega plemiškega porekla. To je veljalo zlasti, ko so bile izpolnjene določene izobraževalne zahteve. Obnovo cesarske vladavine je vodila nova upravna elita, ki je bila popolnoma pripravljena izkoristiti družbena izkrivljanja, ki jih je povzročila vojna. Številni od teh posameznikov so bili člani večjih, čez-imperialnih mrež, ki so posnemale starejše oblike aristokratske družabnosti in pomagale širiti znanje ter se pogajati o strategijah. Srednji razredni administratorji bi lahko sodelovali pri preoblikovanju in konfiguraciji cesarske politike v dobi modernega imperija (kar postavlja pod vprašaj idejo moderne države kot prevladujoče politične strukture v Evropi 19. stoletja). Proizvodnja, kroženje in izkoriščanje različnih kategorij znanja – administrativnega in znanstvenega – je bilo najpomembnejše področje delovanja tega posebnega družbenega razreda. Bolj natančen pogled na posameznike iz te skupine kaže, da so ti moški zlasti v prvi polovici 19. stoletja uporabljali strategije za obvladovanje tveganj, povezanih s kariero v carskih upravah. Večina jih ni mogla uporabiti struktur in posesti, kakršne so imeli njihovi plemiški predhodniki.

Ključne besede: nova cesarska zgodovina, Srednja Evropa, Habsburško cesarstvo, družbena zgodovina, zgodovina znanja, srednji razred, kartografija, zgodovina uprave, zgodovina znanosti

SOURCES AND BIBLIOGRAPHY

- Czoernig, K. F. v. (1857): Ethnographie der oesterreichischen Monarchie. Vienna, Kaiserlich-königliche Hof- und Staatsdruckerei.
- Czoernig, C. (1858): Oesterreich's Neugestaltung 1848–1858. Stuttgart/Augsburg, J.G. Cotta'scher Verlag.
- Anderson, B. (2006 [1983]): Imagined Communities. Reflections on the Origin and Spread of Nationalism. London, New York, Verso.
- Anderson, B. (1998): Nationalism, Identity, and the Logic of Seriality. In: The Spectre of Comparisons. Nationalism, Southeast Asia and the World. London, New York, Verso, 29–45.
- **Ash, M. (2002):** Wissenschaft und Politik als Ressourcen für einander. In: vom Bruch, R. (ed.): Wissenschaften und Wissenschaftspolitik. Bestandaufnahmen zu Formationen, Brüchen und Kontinuitäten im Deutschland des 20. Jahrhunderts. Stuttgart, Franz Steiner-Verlag, 32–51.
- **Bayly, C. A.** (1996): Empire and Information. Intelligence Gathering and Social Communication in India, 1780–1870. Cambridge, Cambridge University Press.
- **Behrisch, L. (2016):** Die Berechnung der Glückseligkeit. Statistik und Politik in Deutschland und Frankreich im späten Ancien Régime. Ostfildern, Thorbecke Verlag.
- **Bourguet, M.-N.** (1988): Déchiffrer la France. La statistique Départementale à l'époque Napoléonienne. Montreux, Gordon & Breach.
- Brandt, H. (2014): Der österreichische Neoabsolutismus als Verfassungs- und Verwaltungsproblem. Diskussionen über einen strittigen Epochenbegriff. Wien, Köln, Weimar, Böhlau.
- Brendecke, A., Friedrich, S. & M. Friedrich (2008): Information in der Frühen Neuzeit. Status, Bestände, Strategien. Münster, LIT.
- **Brix, E.** (1982): Die Umgangssprachen in Altösterreich zwischen Agitation und Assimilation. Die Sprachenstatistik in den zisleithanischen Volkszählungen 1880 bis 1910. Wien, Köln, Graz, Böhlau.
- Burbank, J. & F. Cooper (2010): Empires in World History Power and the Politics of Difference. Princeton, Princeton University Press.
- **Burke**, **P.** (2012): A Social History of Knowledge II. From the Encyclopaedia to Wikipedia. Cambridge, Polity.
- Castells, M. (1989): The Informational City. Information Technology, Economic Restructuring and the Urban Regional Process. Oxford, Basil Blackwell.
- Clark, C. (2012): After 1848. The European Revolution in Government. Transactions of the RHS, 22, 171–197.
- **Clark, C. (2019):** Time and Power: Visions of History in German Politics, from the Thirty Years' War to the Third Reich. Princeton, Princeton University Press.
- Coen, D. (2018): Climate in Motion. Science, Empire and the Problem of Scale. Chicago, London, University of Chicago Press.
- Collin, P. & T. Horstmann (eds.) (2004): Das Wissen des Staates. Geschichte, Theorie und Praxis. Baden-Baden, Nomos.
- Cooper, F. (2005): Colonialism in Question. Berkeley, Los Angeles, University of California Press.

- Csáky, M. (2010): Das Gedächtnis der Städte. Kulturelle Verflechtungen Wien und die urbanen Milieus in Zentraleuropa. Wien, Köln, Weimar, Böhlau.
- Daston, L. & P. Galison (2007): Objectivity. Cambridge, London, Zone Books.
- **Deak, J.** (2015): Forging a Multinational State: State Making in Imperial Austria from the Enlightenment to the First World War. Stanford, Stanford University Press.
- **Desrosières, A.** (2010 [1993]): La Politique des Grands Nombres. Histoire de la Raison Statistique. Paris, La Decouverte.
- Drobesch, W. (2009): Bodenerfassung und Bodenbewertung als Teil einer Staatsmodernisierung. Theresianische Steuerrektifikation, Josephinischer Kataster und Franziszeischer Kataster. Histoire des Alpes = Storia delle Alpi = Geschichte der Alpen, 14, 165–183.
- **Duindam, J.** (2003): Vienna and Versailles. The Courts of Europe's Dynastic Rivals, 1550–1780. Cambridge, Cambridge University Press.
- Evans, R. J. (2016): The Pursuit of Power. Europe 1815–1914. London, Penguin.
- **Fillafer, F. L.** (2016): Das Elend der Kategorien. Aufklärung und Josephinismus in der zentraleuropäischen Historiographie 1918–1945. In: Fillafer, F. L. & T. Wallnig (eds.): Josephinismus zwischen den Regimen. Eduard Winter, Fritz Valjavec und die zentraleuropäischen Historiographien im 20. Jahrhundert. Wien et al., Böhlau, 51–101.
- **Fillafer, F. L.** (2018): Die imperiale Dialektik von Staatsbildung und Nationsgenese. Eine Glosse über Nutzen und Nachteil der Empireforschung für die Habsburgermonarchie. In: Wallnig, T. & T. Heinrich (eds.): Vergnügen. Pleasure. Plaisir. Bochum, Verlag Dr. Dieter Winker, 179–193.
- Fillafer, F. L. & T. Wallnig (2016): Josephinismus zwischen den Regimen. Eduard Winter, Fritz Valjavec und die zentraleuropäischen Historiographien im 20. Jahrhundert. Wien et al., Böhlau.
- **Gammerl, B.** (2010): Untertanen, Staatsbürger und Andere. Der Umgang mit ethnischer Heterogenität im Britischen Weltreich und im Habsburgerreich 1867–1918. Göttingen, Vandenhoeck&Ruprecht.
- Ganzenmüller, J. & T. Tönsmeyer (2016): Vom Vorrücken des Staates in die Fläche. Ein europäisches Phänomen des langen 19. Jahrhunderts. Wien et al., Böhlau.
- **Ghosh, D.** (2012): Another Set of Imperial Turns? The American Historical Review, 117, 3, 772–793.
- Göbl, H. (2008): Ein ethnographisch brisanter Brief des Statistikers Carl von Czoernig an den Unterrichtsminister Karl von Stremayr aus dem Jahre 1873. Ladinia, 32, 19–49.
- **Godsey, W. D.** (2004): Nobles and Nation in Central Europe. Free Imperial Knights in the Age of Revolution, 1750–1850. Cambridge, Cambridge University Press.
- Godsey, W. D. (2009): Der Aufstieg des Hauses Pergen. Zu Familie und Bildungsweg des "Polizeiministers" Johann Anton. In: Haug-Moritz, G., Hye, H. & M. Raffler (eds.): Adel im "langen" 18. Jahrhundert. Wien, Verlag der ÖAW.
- **Godsey, W. D.** (2018): The Sinews of Habsburg Power. Lower Austria in a Fiscal-Military State 1650–1820. Oxford, Oxford University Press.
- Göderle, W. (2016a): Zensus und Ethnizität. Zur Herstellung von Wissen über soziale Wirklichkeiten im Habsburgerreich zwischen 1848 und 1910. Göttingen, Wallstein.
- **Göderle, W. (2016b):** Administration, Science, and the State: The 1869 Population Census in Austria-Hungary. Austrian History Yearbook, 47, 61–88.
- **Göderle, W. (2017):** Modernisierung durch Vermessung? Das Wissen des modernen Staats in Zentraleuropa, circa 1760–1890. Archiv für Sozialgeschichte, 57, 155–186.

- **Göderle, W. (2018):** State-Building, Imperial Science, and Bourgeois Careers in the Habsburg Monarchy in the 1848 Generation. The Cases of Karl Czoernig (1804–89) and Carl Alexander von Hügel (1795/96–1870). Hungarian Historical Review, 7, 2, 191–218.
- Göderle, W. (2019): Volkszählung und moderner Staat. In: Haas, S., Schneider, M. & N. Bilo (eds.): Die Zählung der Welt. Kulturgeschichte der Statistik vom 18. bis 20. Jahrhundert. Stuttgart, Franz Steiner Verlag, 99–122.
- Göderle, W. & M. Pfaffenthaler (2018): Dynamiken der Wissensproduktion. Räume, Zeiten und Akteure im 19. und 20. Jahrhundert. Bielefeld, transcript.
- Göderle, W. & T. Wallnig (2019): Nutzen und Grenzen des Forschungsparadigmas »Katholische Aufklärung«. Herrschaftslogik und sozialer Wandel im Habsburgerreich am Vorabend der Moderne. In: Overhoff, J. & A. Oberdorf (eds.): Katholische Aufklärung in Europa und Nordamerika. Göttingen, Wallstein, 52–76.
- **Grečenková M. (2004):** L'itinéraire Professionnel et l'univers Intellectuel des Bureaucrates Eclairés. Histoire, économie et société, 23, 4, 503–524.
- **Hansen, J. (2015):** Mapping the Germans. Statistical Science, Cartography, and the Visualization of the German Nation, 1848–1914. Oxford, Oxford University Press.
- **Harley, J. B. (2001):** The New Nature of Maps. Essays in the History of Cartography. Baltimore, Johns Hopkins University Press.
- **Heindl, W. (1990):** Gehorsame Rebellen. Bürokratie und Beamte in Österreich 1780 bis 1848. Wien, Köln, Böhlau.
- **Heindl, W. (2014):** Verwaltungseliten im Neoabsolutismus. Professionelles und politisches Profil vor dem Horizont der Modernisierung. In: Brandt, H. (ed.): Der österreichische Neoabsolutismus als Verfassungs- und Verwaltungsproblem. Diskussionen über einen strittigen Epochenbegriff. Wien, Köln, Weimar, Böhlau, 145–157.
- **Helmedach, A. (2002):** Das Verkehrssystem als Modernisierungsfaktor. Straßen, Post, Fuhrwesen und Reisen nach Triest und Fiume vom Beginn des 18. Jahrhunderts bis zum Eisenbahnzeitalter. München, Oldenbourg Wissenschaftsverlag.
- **Hochedlinger, M. (2009):** The Habsburg Monarchy: From 'Military-Fiscal State' to 'Militarization'. In: Storrs, C. (ed.): The Fiscal-Military State in Eighteenth-Century Europe. Farnham, Burlington, Taylor&Francis.
- Hotson, H. & T. Wallnig (2019): Reassembling the Republic of Letters in the Digital Age. Standards, Systems, Scholarship, Göttingen, Göttingen University Press.
- Ingrao, C. (2000 [1994]): The Habsburg Monarchy, 1618–1815. Cambridge, Cambridge University Press.
- **Jesner, S.** (2019): The World of Work in the Habsburg Banat (1716–51/53). Early Concepts of State-Based Social and Healthcare Schemes for Imperial Staff and Relatives. Austrian History Yearbook, 50, 58–77.
- Judson, P. M. (2016): The Habsburg Empire. A New History. Cambridge, Harvard University Press.
- **Kamusella, T. (2012 [2008]):** The Politics of Language and Nationalism in Modern Central Europe. London, New York, Palgrave.
- **Karstens, S. (2011):** Lehrer Schriftsteller Staatsreformer: die Karriere des Joseph von Sonnenfels (1733–1817). Wien, Köln, Böhlau.
- Krämer, S. (2008): Medium, Bote, Übertragung. Kleine Metaphysik der Medialität. Frankfurt am Main, Suhrkamp.

- Labbé, M. (2004): La Carte Ethnographique de l'Empire Autrichien : La Multinationalité dans "l'Ordre des Choses". Monde des Cartes. Revue du Comité Français de Cartographie, 180, 71–84.
- Labbé, M. (2011): Die "Ethnographische Karte der Oesterreichischen Monarchie." Ein Abbild der Monarchie. In: Lebeau, C. & W. Schmale (eds.): Images en Capitale: Vienne, Fin XVIIe Début XIXe Siècles = A Capital City and Its Images: Vienna in an 18th-Century Perspective = Bilder der Stadt: Wien Das lange 18. Jahrhundert. Bochum, Verlag Dr. Dieter Winkler, 151–166.
- Landwehr, A. (2007): Wissensgeschichte. In: Schützeichel, R. (ed.): Handbuch Wissenssoziologie und Wissensforschung. Konstanz, UVK, 801–813.
- Latour, B. (1987): Science in Action. How to Follow Scientists and Engineers through Society. Cambridge, Harvard University Press.
- **Latour, B.** (1999): Circulating Reference: Sampling the Soil in the Amazon Forest. In: Latour, B.: Pandora's Hope. Essays on the Reality of Science Studies. Cambridge, Harvard University Press, 24–79.
- Latour, B. & S. Woolgar (1979): Laboratory Life. The Construction of Scientific Facts. Princeton, Princeton University Press.
- Löffler, J. (2017): Grundherrschaftliche Verwaltung, Staat und Raum in den böhmischen und österreichischen Ländern der Habsburgermonarchie vom ausgehenden 18. Jahrhundert bis 1848. Administory. Zeitschrift für Verwaltungsgeschichte, 2, 118–145.
- Martus, S. (2015): Aufklärung. Das deutsche 18. Jahrhundert. Ein Epochenbild. Berlin, Rowohlt.
- Mazohl, B. (2015a): Vom Tod Karls VI. bis zum Wiener Kongress (1740–1815). In: Winkelbauer, T. (ed.): Geschichte Österreichs. Ditzingen, Reclam, 290–358.
- **Mazohl, B. (2015b):** Die Zeit zwischen dem Wiener Kongress und den Revolutionen von 1848/49. In: Winkelbauer, T. (ed.): Geschichte Österreichs. Ditzingen, 359–390.
- Mazohl-Wallnig, B. (2005): Zeitenwende 1806. Das Heilige Römische Reich und die Geburt des modernen Europa. Wien, Köln, Weimar, Böhlau.
- Moretti, F. (2013): Distant Reading. London, New York, Verso.
- Müller-Wille, S., Reinhardt, C. & M. Sommer (2017): Wissenschaftsgeschichte und Wissensgeschichte. In: Sommer, M., Müller-Wille, S. & C. Reinhardt (eds.): Handbuch Wissenschaftsgeschichte. Stuttgart, J. B. Metzler, 2–18.
- Okey, R. (2002): The Habsburg Monarchy, c. 1765–1918. From Enlightenment to Eclipse. Basingstoke et al., Macmillan Press.
- Planert, U. (2017): Neither War nor Postwar. Decades of Reconstruction. In: Planert, U. & J. Retallack (eds.): Decades of Reconstruction. Postwar Societies, State-Building and International Relations from the Seven Years' War to the Cold War. Cambridge, Cambridge University Press, 1–30.
- Porter, T. M. (1995): Trust in Numbers: The Pursuit of Objectivity in Science and Public Life. Princeton, Princeton University Press.
- Raj, K. (2007): Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650–1900. Basingstoke, New York, Macmillan.
- **Raj, K.** (2016): Rescuing Science from Civilisation: On Joseph Needham's "Asiatic Mode of (Knowledge) Production". In: Bala, A. & P. Duara (eds.): The Bright Dark Ages. Comparative and Connective Perspectives. Leiden, Boston, Brill, 255–280.

- Rumpler, H. (2010): Carl Josef Czoernig Frh. Von Czernhausen als "Vater" der österreichischen Verwaltungsstatistik. In: Brünner, C. et al. (eds.): Mensch Gruppe Gesellschaft: Von bunten Wiesen und deren Gärtnerinnen bzw Gärtnern. Graz, Neuer Wissenschaftlicher Verlag, 833–47.
- Sarasin, P. (2011): Was ist Wissensgeschichte? Internationales Archiv für Sozialgeschichte der deutschen Literatur (IASL), 36, 1, 159–172.
- Schaffer, S. (2009): "Newton on the Beach": The Information Order of the *Principia Mathematica*. History of Science, 47, 243–276.
- Schär, B. (2015): Tropenliebe. Schweizer Naturforscher und niederländischer Imperialismus in Südostasien um 1900. Frankfurt am Main, Campus.
- Schneider, K. (2015): Zwischen "Monarchischer Union von Ständestaaten" und Gesamtstaat. Die Habsburgermonarchie im 18. und 19. Jahrhundert. In: Schennach, M. P. (ed.): Rechtshistorische Aspekte des österreichischen Föderalismus. Wien, Verlag Österreich, 31–49.
- Scott, J. (1998): Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed. New Haven, Yale University Press.
- Siemann, W. (2016): Metternich. Stratege und Visionär. Eine Biografie. München, C. H. Beck. Sivasundaram, S. (2010): Sciences and the Global: On Methods, Questions, and Theory. Isis, 101, 146–158.
- Speich Chassé, D. & D. Gugerli (2012): Wissensgeschichte. Eine Standortbestimmung. Traverse. Zeitschrift für Geschichte, 1, 85–100.
- Stollberg-Rilinger, B. (2017): Maria Theresia. Die Kaiserin in ihrer Zeit. München, C. H. Beck. Tantner, A. (2007): Ordnung der Häuser, Beschreibung der Seelen. Hausnummerierung und Seelenkonskription in der Habsburgermonarchie. Innsbruck, Wien, Bozen, StudienVerlag.
- **Twellmann, M. (2014):** Literatur und Statistik. Über das Verhältnis von alphabetischer und numerischer Soziographie. In: Cevolini, A. (ed.): Die Ordnung des Kontingenten. Innovation und Gesellschaft. Wiesbaden, Verlag für Sozialwissenschaften, 107–130.
- van Laak, D. (2018): Alles im Fluss: Die Lebensadern unserer Gesellschaft Geschichte und Zukunft der Infrastruktur. Frankfurt am Main, S. Fischer.
- Vick, B. E. (2014): The Congress of Vienna. Power and Politics after Napoleon. Cambridge, London, Harvard University Press.
- Vocelka, K. (2000): Geschichte Österreichs. Kultur Gesellschaft Politik. Graz, Verlag Styria.
- Vogel, J. (2004): Von der Wissenschafts- zur Wissensgeschichte. Für eine Historisierung der "Wissensgesellschaft". Geschichte und Gesellschaft, 30, 639–660.
- von Hirschhausen, U. (2015): A New Imperial History? Programm, Potenzial, Perspektiven. Geschichte und Gesellschaft, 41, 718–758.
- von Oertzen, C. (2017): Die Historizität der Verdatung. Konzepte, Werkzeuge und Praktiken im 19. Jahrhundert. NTM Zeitschrift für Geschichte der Wissenschaften, Technik und Medizin, 25, 4, 407–434.
- Winkelbauer, T. (2015): Geschichte Österreichs. Ditzingen, Reclam.
- Wood, D. (1992): The Power of Maps. New York, Guilford Press.
- Zeller, W. (1979): Geschichte und Ergebnisse der zentralen amtlichen Statistik in Österreich 1829–1979. Beiträge zur österreichischen Statistik, 550, 13–240.