

“Habsburg” Breeds? Breed Selection and the Construction of an Agricultural State in the 19th-Century Habsburg Empire

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This article examines programs of breed selection in the 19th-century Habsburg Monarchy. Throughout the century, imperial rulers and members of agricultural societies cooperated to promote the selection and circulation of specific groups of cattle. In the scope of broader visions of development for an “agricultural state”, such schemes highlight how agricultural improvers used issues of husbandry to shape, from below as well as from above, a combined process of economic growth and empire-building.

• **Keywords:** cattle breeding, animal populations, agricultural improvement, agricultural societies, Habsburg Monarchy

Članek preučuje programe odbiranja pasemskih živali v Habsburški monarhiji 19. stoletja. V tem obdobju so vladarji in člani kmetijskih družb sodelovali pri spodbujanju odbiranja in načrtnega razmnoževanja določenih pasem goveda. V luči vizij o razvoju »kmetijske države« takšne pobude razkrivajo, kako so kmetijski pospeševalci napredka na podlagi rejskih izzivov oblikovali združeni proces gospodarske rasti in gradnje imperija – tako od spodaj navzgor kot od zgoraj navzdol.

• **Ključne besede:** govedoreja, živalske populacije, kmetijski napredek, kmetijske družbe, Habsburška monarhija

Introduction: The 19th-century project of an agricultural empire

For economic historians, the term *agricultural state* has long been an analytical category for an economic structure. In the case of Austria-Hungary, the concept is often associated with an idea of failure to catch the train of the industrial revolution. This narrative has been based on a set of statistical indicators, especially the employment structure in the Monarchy showing that, throughout the century, a majority of the population lived from agricultural activities (around two-thirds in 1869, 53% in 1910) and that the shifts from agricultural to industrial employments took place later than in Western European states (Sandgruber, 1978: 243; Good, 1984: 46–48). Consequently, describing the Habsburg Monarchy as an agricultural state usually connotes a sense of economic backwardness (Hoffmann, 1978: 13, 61–65). But many agronomists, landowners, and politicians of the nineteenth century used the phrase “*Agrarstaat*” in a more positive sense. In spite of the ongoing industrialisation, agricultural matters maintained their centrality to many economic and social debates of the time (Auderset, Moser, 2018). Far from looking exclusively towards industries, many actors argued that agriculture was the main pillar of the Austrian economy and that the Habsburg Monarchy should develop as an agricultural state. Even the imperial government endorsed this idea in 1898 in the introduction of a large *History of Austrian Agriculture and Forestry*,

and Their Industries, claiming that Austrian farmers (Ger. *Landwirte*) were “the strongest and most enduring bearer of the building of the economy that has so mightily grown since [the beginning of the century], the most reliable and devoted pillar of the state” (*Geschichte der österreichischen Land- und Forstwirtschaft*, 1899: IX). To them, the *Agrarstaat* was not a descriptive concept, but a serious political project that took its roots in a particular vision, dating back to the eighteenth century, of how natural riches ought to be used. As the statistician Joseph Freiherr von Liechtenstern wrote in 1802:

The Austrian hereditary lands have above all the most favourable situation, the soft climate, and a fertile soil that spreads almost everywhere, incredibly favouring plant production of almost every kind; and since husbandry is based on the latter, the provinces of the Austrian Monarchy are to a large extent excellently suited for this. One must therefore wonder that, given these happiest natural conditions, one does not find the level of civilisation [*Grad von Kultur*] that the Austrian Estates are so easily capable to achieve. (Liechtenstern, 1802: 2)

By the standards of the early nineteenth century, Liechtenstern’s view was classic in bringing together matters of physical geography and climate with economic schemes and, eventually, with a vision of the empire’s vocation (Horvath, 2020: 31–37; Vianna Franco, Missemer, 2023: chap. 1; Török, 2024). According to Pierre Charbonnier, most modern projects for economic growth based their visions of the political order on the productive use of natural resources (Charbonnier, 2020). What makes the early-nineteenth century Habsburg case distinctive is that many statisticians and agronomists of the time set a particular emphasis on animal husbandry, which Liechtenstern called elsewhere “the soul of agriculture”, calling on both landowners and state authorities to intervene in the realisation of this project. From the early 1800s, sheep and cattle increasingly became objects of improvement plans designed by the combined efforts of the imperial government, agricultural societies, and individual breeders. This article analyses how such projects of agricultural economic growth encouraged a transformation of the relationships between breeders and animals, and how these transformations related to the larger political process of empire-building in the Habsburg Monarchy.

The mission attributed to cattle in projects of economic growth rested on the key role these animals played in contemporary agrosystems. Cattle were the most polyvalent animals, providing the fertilisers necessary to crop cultivation, labour as draught animals, and producing valuable commodities like milk and meat. Agricultural improvers imagined several ways not only to rear more animals, but to make each of them more productive. A first area of improvement revolved around the promotion of more intensive rearing techniques, with the development of fodder cultivation and stable feeding (Nisly, 2019). This article focuses on a second kind of improvement

programs that was concerned with the reproduction of the animals: the classification and promotion of specific cattle “breeds” (Ger. *Rindviehrassen*). These programs shed light on how the agricultural improvers attempted to spread some specific groups of animals throughout the territory of the Habsburg Monarchy, and on the work of agricultural improvers at large. The relevance of such improvement programs went beyond the technical aspects that dominate most of the historiography of the process known as the “birth of modern breeds” (Feliuss et al, 2014; Denis, 2016). Throughout Europe, the classification of animals into breeds and the material transformation of animal bodies intersected with renewed methods of governing (human and animal) populations and with economic objectives (Zellinger, 2019; Bächli, 2023; Gruffat, 2025). The case of breed selection thus enables us to address the political implications of the *Agrarstaat* project. Looking at the variety of intentions and actual practices of the actors who promoted breed selection illustrates how they tried to incorporate animals into a productivist economic system at the service of specific visions of the empire and its government. Seen in this light, programs of breed selection contributed to materialise the Habsburg Monarchy as an agricultural empire.

This hypothesis first requires that we trace how it mattered for the animals to be selected in the Habsburg Monarchy and not elsewhere. To that end, I use archives and publications from two types of institutions that cooperated in the programs of husbandry improvement. The earliest institutions involved were the provincial agricultural societies in which agronomists and wealthy landowners gathered to promote any kind of agricultural improvements. The first such societies in the monarchy had been founded in the second half of the eighteenth century, but their activity progressively decreased until the Napoleonic Wars, following which they gained a new impetus and much larger memberships (Bruckmüller, 1982, 2020; Sušjan, Južnič, 2018). Archival documents concerning husbandry from the Lower Austrian and Tyrolean Agricultural Societies highlight how these associations enjoyed the support of the Habsburg government, who turned them into semi-public bodies meant to develop an early form of agricultural policy.¹ Progressively, some members of the societies managed to play a part in the definition of agricultural policies. The cooperation between the agricultural societies and the Habsburg government became tighter with time, and archives from the Lieutenancies (Ger. *Statthaltereien*) and, for the second half of the century, the Ministry of Agriculture, provide key complements to understand the evolution of breed promotion. Beyond tracing the fates of several cattle breeds, the combined use

¹ The archives of the Lower Austrian Agricultural Society are in Austrian State Archive (OeStA) – Allgemeine Verwaltungsarchiv (AVA) – Landwirtschaft (LW) – Landwirtschaftsgesellschaft (LWG). To my knowledge, there is no archive of the Tyrolean Agricultural Society, but its activity can be reconstructed through its published proceedings (conserved in the Landesmuseum Ferdinandeum in Innsbruck) and through its correspondence with the imperial administration, whose archive conserve many documents coming from the society (Tiroler Landesarchiv (TLA) – Jüngeres Gubernium or Statthaltereien – Kultur).

of these archives enables us to shed light on the political history of cattle in the nineteenth-century Habsburg Empire. The selection of cattle breeds can be analysed as the construction of a form of government of animal populations (Piazzesi, 2023; Brassart, 2024). Crucially, as these institutions negotiated and implemented it, the government of the animals was shaped from many sides, as much by local actors as by state authorities. Far from being an “improvement” imposed from above (Li, 2005), this history of cattle selection offers us a field of research to explore “from below” the operating mechanisms through which the Habsburg Empire developed as a “cooperative empire” (Osterkamp, 2016, 2021: 83–88). Beyond the intersection between categorisation of cattle into breeds and construction of a productive economy, concrete issues of cattle husbandry, similarly to many others, shaped practices of cooperation between state and non-state actors through which the communication and decision-making networks of the empire spread over its territory and affected the daily lives of both human and animal populations.

The first section analyses how the organisation of cattle exhibitions promoted a new conception of husbandry that reconceptualised the meaning of “breeds” and tied it to visions of a modernised empire. The exhibitions promoted a shift in the relationships between landlords (Ger. *Grundherren*) and peasants and culminated in what governmental ideology presented as the “new organisation of Austria” (Ger. *Neugestaltung Österreichs*). In a paradigm largely inspired by liberal ideals of improvement, cattle became a piece in larger programs of reform of the empire. The second section examines how agricultural improvers attempted to reach smaller landowners through direct distribution of animals that actively involved a variety of actors across the political hierarchies. These programs of breed selection rested on a specialisation of the animals’ economic role and the mobility of the breeds, whose institutionalisation contributed to a process of integration of the empire.

A liberal promotion of productive breeds

Promoters of the “agricultural enlightenment” had already devoted some attention to husbandry at large and animal selection more particularly in the last decades of the eighteenth century (Jones, 2015: 96–98). In the central provinces of the Habsburg Empire, the activity of the early agricultural societies supported the rulers’ policies of importing specific breeds such as the merino sheep to develop more profitable activities (Wood, Orel, 2001: 171–187 and chap. 8). But their activities remained relatively limited until the aftermath of the Napoleonic Wars. When the agricultural societies regained impetus, new programs to promote cattle selection started with the organisation of agricultural exhibitions primarily focused on cattle and sheep rearing. The landowners and agronomists who led the societies interpreted their “private” action

in a “patriotic sense”: they wished to assist the government by “act[ing] with united strength for the improvement of agriculture in its main branches, and consequently for the more perfect use of the natural treasures of the fatherland, and for the multiplication of its inner prosperity [*Wohlstand*]” (Geschichtliche Darstellung, 1816: 5–7).

The original aim of the exhibitions was to promote the development of husbandry as a key activity in this respect and to expand the reach of agricultural societies into the countryside (Vorschläge zur Beförderung, 1821). Like similar events in other parts of Europe, for instance France or the United Kingdom, these economic considerations were tied to issues of social representation. But while in the British context practices of aristocratic distinction intentionally excluded peasants (Ritvo, 1990, 51–54), the Austrian exhibitions promoted another kind of relationship between the landlords and the peasants. From the 1820s, agricultural exhibitions became annual events in several provincial capitals of the Monarchy like Vienna, Brno, and Budapest which gathered mainly large-estate owners who belonged to the traditional aristocracy as well as a more recent nobility that had invested in land. At the same time, however, the Lower Austrian Agricultural Society developed rural exhibitions focused on cattle husbandry with the aim of including peasant breeders into the process of husbandry improvement. As such, they resembled more the kind of awarding ceremonies organised around the same period in rural France by some of the associations known as *comices agricoles* (Vivier, 2015: 123–124).

In principle, exhibitions promoted the intensification of husbandry based on a liberal ideal of progress through education. The leaders of the agricultural society conceived their mode of promotion in opposition to “legal constraints” that could be imposed on the breeders, trusting instead that their appeals to well-perceived interests and reason could replace inefficient customary practices with a “rational” agriculture. In concrete terms, they designed distributions of prizes to the most “beautiful” cattle to create a spirit of “emulation” (Jones, 2015: 85–91) and to foster a model of teaching through example that should, eventually, improve breeding practices throughout the countryside. In practice, the exhibitions often paved the way for a more paternalistic lecturing of allegedly ignorant peasants by agronomists and the landlords or their estate-managers who organised the local rural exhibitions. The system of awards was organised in a way that differentiated two kinds of cattle owners, the nobles and their “subjects” (Ger. *Untertanen*), and appealed to the needs of social distinction of the former with distributions of medals and certificates, while adding pecuniary incentives for the latter.²

Early schemes of husbandry improvement were embedded in a larger set of social relationships mixing calls to civic patriotism with attitudes related to the *Grundherrschaft*. The latter were particularly visible in the behaviour of some local nobles, who organised lotteries to indirectly subsidise the purchase of prized animals by the

² OeStA – AVA – LW – LWG – Akten – Karton 4 – N°31; Karton 22 – N°93 and Karton 71 – N°453.

peasants.³ In the 1830s, the Viennese Agricultural Society also experimented with a few direct distributions of prized animals to peasant communities, which the latter usually obtained with the support of their landlord who provided them with recommendation letters and arguments to highlight their local efforts of improvement.⁴ Underneath the paternalist outlook of the exhibitions, however, large landowners could actually learn from the peasants who sometimes brought more beautiful animals to the exhibitions than their landlords (Collaredo-Mansfeld, 1835: 61). Non-noble breeders often received the same kind of distinctions as the landlords, and this mode of “government through honours” (Ihl, 2004) that recognised their merits gradually contributed to blur the traditional borders of social distinction.

Exhibitions of cattle and sheep played a crucial role in the emergence of a concept of “breeds” (Ger. *Rassen*) that acquired a strong economic meaning. The granting of medals in the network of rural exhibitions prompted long-lasting debates between the local juries and the central committee of the Agricultural Society about the criteria that made the “*schönes Vieh*”. The juries did not consider the “beauty” of animals as purely aesthetic. Instead, they heavily loaded it with economic considerations in a way that would last for many decades (Heitholt, 2023: 94–96). The exhibitions and the debates that followed them became a central place to compare cattle from different origins, especially from Hungary, Styria, Tirol, and Switzerland. For breeders like Joseph von Ehrenfels, a landowner and renowned figure of the Austrian agronomic networks, the aim was to find out which kind of cattle was the most suited to varying regional agricultures, taking a combination of factors into account. Ehrenfels considered on the one hand the animals’ yields compared to their fodder consumption, focusing on the possible combinations of three main uses: labour, milk, and meat. On the other hand, he compared these productions to the care the animals required and how well they could adapt to the given local environmental and socioeconomic conditions, including for example climatic variations and the economic needs of smaller peasants (Ehrenfels, 1831). With his help, the central committee of the Agricultural Society designed tables for the cattle exhibition juries to evaluate cattle with a fixed set of criteria. The “beautiful” animals’ appearance was supposed to reveal their productive abilities and to give some information about their capacity to transmit them to their offspring.⁵ The animals’ external physical characteristics and their ability to transmit them in a constant way to the next generation, in other words their “heredity”, became the key concepts through which zootechnicians classified cattle into distinct “breeds”. The annually held agricultural exhibitions provided the members

³ For the plan of the lotteries see Collaredo-Mansfeld, 1834: 7–11. Many reports on individual lotteries can be found in the archives of the Agricultural Society, for instance: OeStA – AVA – LW – LWG – Akten – 72 – N°656. See also the annual reports in the *Verhandlungen der k.k. Landwirtschafts-Gesellschaft in Wien* until 1847.

⁴ OeStA – AVA – LW – LWG – Akten – 71 – N° 588 and N°593.

⁵ OeStA – AVA – LW – LWG – Akten – 22 – N°176 – Beilage N°12 and N°13.

of agricultural societies with opportunities to both debate about their vaguely scientific terminologies of *Rassen*, *Schläge*, *Stämme* etc. and refine the classification of the breeds along increasingly precise geographic delimitations.⁶

The exhibition’s purpose of scientific classification peaked in the large international exhibitions of the 1850s, when they acquired an additional marketing function. The Ministry of the Interior coordinated the Austrian delegation to the 1856 *Concours Agricole Universel* in Paris, led by prince Adolf zu Schwarzenberg, with the explicit aim of creating a demand for animals like Pinzgauer cattle or Hungarian oxen on the expanding international markets.⁷ On this occasion, the ministry commissioned the network of agricultural societies to publish the first comprehensive descriptions of the monarchy’s livestock, which contributed to grant an “Austrian” identity to the animals.⁸ The ensuing book was not as comprehensive as the original scheme had projected, but it nevertheless provided the primary material for knowledge of “Austrian” breeds at the European level (*Notes sur l'élevage*, 1856). The Viennese monarchy-wide agricultural exhibition of 1857 that celebrated the fiftieth anniversary of the Lower Austrian Agricultural Society similarly constituted an opportunity to celebrate “Austria’s productive force” and “spirit of progress” through its diversity of cattle breeds (*Die landwirtschaftliche Ausstellung in Wien*, 1857). The Ministry of the Interior commissioned an illustrated album that prolonged the exhibition, which the imperial administration and agricultural societies offered to corresponding European societies and widely advertised in the provinces of the empire as a tool to promote the selection of cattle breeds.⁹

In this process, the Habsburg government and agricultural societies incorporated cattle husbandry into a political representation of the post-1848 reformed empire, or what the empire’s apologists like Czörnig and Schwarzer called more broadly *Neu Österreich* (Seiderer, 2015: 13–14; Judson, 2016: 238–244). On the one hand, the exhibitions staged the new status of the peasantry as independent citizens who, in all their picturesque diversity, represented a pillar of the empire. Press reports of the exhibitions, often written by eminent members of the agricultural societies, emphasised that peasants contributed to economic progress on a par with the traditional aristocracy. The French emperor’s visit to the Paris exhibition also provided the Austrian delegation with an opportunity to put to the fore a Tyrolean peasant named Kajetan Kröll,¹⁰

⁶ On the terminology of “breeds”: OeStA – AVA – LW – LWG – Akten – 39 – N°61.

⁷ Preparatory documents of the delegation were circulated to all the provincial agricultural societies of the Monarchy. They can be found for instance in TLA – Statthalerei Tirol und Vorarlberg – Karton 316 – Cultur 1856-1857 – 1856 – N°4472 and N°17315.

⁸ TLA – Statthalerei Tirol und Vorarlberg – Karton 316 – Cultur 1856-1857 – 1856 – N°4701.

⁹ OeStA – AVA – LW – LWG – Akten – 173 – 767. Another example in Dalmatia: Croatian State Archive in Zadar (HR – DAZD) – 498 – Kut 6 – N°8657/1724, N°11139/2333 and 12148/2523.

¹⁰ More than a random peasant, Kröll nevertheless appears as a successful breeder who quickly got used to international exhibitions. He also got involved in the 1863 Hamburg Exhibition, see TLA – Statthalerei Tirol und Vorarlberg – Cultur – Karton 319 – 1863 – File ‘Landwirtschaftliche Ausstellung in Hamburg’ – N°21095/1965.

together with a couple of Duxer cattle whom he offered to the French imperial family as diplomatic gift (Arenstein, 1856). This type of “spectacular politics” (Truesdell, 1997) extended to the animals themselves, and Hungarian oxen were for instance presented as excellent draught animals who fully contributed to a modern agricultural system (*Notes sur l'élevage*, 1856: 30–33).

On the other hand, large cattle exhibitions also staged a new picture of the empire specifically as a space of economic circulation. A key point of the ministry's communication was to promote the circulation of the breeds, particularly within the imperial territory. The album of the 1857 Viennese Exhibition showcased how some breeds like the Pinzgauer could be reared outside of their “home region” (Ger. *Heimat*) in the Salzburg Alps and settled in Moravia, for instance. The editors of the album placed a particular emphasis on their “Austrian” origin when selecting the breeds. The only “foreign” breeds they presented were the ones that had managed to fully integrate into their new Austrian home, what they called “*sich einbürgern*”, literally meaning ‘becoming a citizen’ (*Abbildungen österreichischer Rindvieh-Racen*, 1859). The process of classification of cattle into breeds proceeded in ways that, in several respects, resembled the ways in which statisticians attempted to classify humans into nationalities (Gruffat, 2025: 299–300). Such an analogous treatment of cattle and human populations, which were additionally counted during the same census operations, suggests how the animals were increasingly considered a productive population for the Austrian economy requiring an administrative management of their circulation (see also Göderle, 2020).

This discourse on breed circulation rested on a complex relationship between the notions of breed and environment. One issue was acclimatising breeds to a new home, and the agronomists suggested that technical solutions such as well-designed stables enabled breeders to successfully settle Swiss cattle from their Alpine home onto the Hungarian Plain (*Abbildungen österreichischer Rindvieh-Racen*, 1859: plate XXI). On the other hand, mid-nineteenth-century zootechnicians admitted that there were important “natural” limits on what they could do (Baudement, 1862: IV), and that some breeds were more adapted to specific local environments of the monarchy than others. The breed's productivity became a relative concept measured with regard to several territorial features. In the eyes of many, the geographic features of the empire came to determine its vocation as an agricultural state and its available options for the improvement of cattle husbandry. The idea of an environmental determinism of husbandry was particularly strong in Alpine regions, where it became commonplace in the economic discourse to argue that alpine pastures “assigned” husbandry to serve as the main source of income of the country.¹¹

¹¹ This remark was almost ubiquitous in reports from agricultural societies and chambers of commerce. See e.g. TLA – Jüngerer Gubernium – Faszikel 3835 – Normaliensammlung – III.21.C – *Report from the Agricultural Society in Innsbruck 13 October 1803*; TLA – Statthalerei Tirol und Vorarlberg – Handel – Karton 1704 – 1854 – File ‘Handelskammern / Feldkirch’ – N°2369/403.

These representations had strong implications for the types of cattle whose choice agricultural improvers would encourage. Some agronomists concluded from the comparisons between Austrian and foreign cattle in international exhibitions that they should import feeding techniques and breeds from what they perceived as more advanced countries like England (Buchmüller, 1857). In Tirol for instance, Johann Lepuschitz, owner of a model farm and member of the board of the Innsbruck Agricultural Society, considered that the latter should import the famous English Durham to improve Tyrolean cattle through progressive crossings instead of Swiss breeds that were frequently imported at the time.¹² But proponents of English breeds remained a minority within both agricultural societies and the Habsburg civil service. The County Officer (Ger. *Kreishauptmann*) in Imst explained for example in a note that introducing large and heavy breeds like the Durham was not feasible in the Upper Inn Valley. He considered on the one hand that the breed’s consumption of fodder was out of proportion to the local supplies, and moreover that the steep slopes of the Alps were barely accessible to such breeds, whereas the native ones were more suited to the local environment and rural economy.¹³ The naturalist and professor at the Viennese Universität für Bodencultur, Martin Wilckens, summarised this general attitude towards breed selection a few decades later by emphasising that “there is no absolutely good or poor breed, but their good or poor qualities result from their adequacy and inadequacy to climate, soil, and economic purposes” (Wilckens, 1876: 24).

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Ideas and practices of breed selection in Central Europe developed in relationship to the deeper political transformations in the Habsburg Empire. Agronomists and landowners developed a concept of “breed” that classified animals in distinct categories for economic purposes. Both the development of this concept and the promotion of actual animals emerged in social settings that were originally strongly embedded in the system of the *Grundherrschaft*, but became increasingly loaded with a political meaning that promoted a new vision of the reformed Austrian Empire. In a way comparable to the work of climatology, cattle improvement embodied how the empire modernised as a space of circulation, promoting economic and social progress accordingly with its environmental vocation (Coen, 2018: 49–55, 160–163, 186–195). However, the material outcomes of breed selection schemes did not seem to take place quite as the political communication had promised. As the Lower Austrian Agricultural Society

¹² TLA – Statthalterei Tirol und Vorarlberg – Cultur – Karton 322 (1869-1870) – 1869 – File ‘Staatssubvention zur Hebung der Landeskultur’ – Sub-file ‘Abschriften der Ackerbau-Ministerial-Erlässe’ – Notes by Johann Lepuschitz 28 August and 2 September 1869 (no numeration).

¹³ TLA – Statthalterei Tirol und Vorarlberg – Cultur – Karton 319 – 1863 – File ‘Verbesserung der Rindviehzucht durch Haltung von Zuchtstieren’ – N°161.

complained in the 1860s, the liberal approach to cattle selection based on individual interests and the spirit of emulation seemed to have reached its limits. The breeders' dissatisfaction with the slow changes they observed on the ground led them to call increasingly for state interventions into the selection of breeds in the second half of the nineteenth century.

Bull distributions, breeding districts, and imperial integration

The breeding programs of the mid-nineteenth century went beyond issues of imperial representation and social distinction. The classification of animals into breeds and the attempts to settle select breeds in new regions organised mechanisms of reproduction and circulation of animals aiming to change the composition of livestock populations throughout the territory of the empire. Such management methods produced visible effects on the bodies of the animals and materialised in concrete ways a process of imperial integration supported by the ambiguous cooperation of state authorities, agricultural societies, and landowners.

In the second half of the nineteenth century, agricultural improvers had socioeconomic, political and zootechnical reasons to look for new modes of promoting cattle improvement beyond the paradigm of emulation that had guided the organisation of exhibitions so far. The abolition of the *Grundherrschaft* that followed the revolutions of 1848 definitively granted the peasants an autonomous social status, which also entailed a diminution of the hitherto landlords' influence on their practices. Moreover, the payment of the peasants' shares to the compensation of the landlords for the *Grundentlastung*, and more generally the transformation of the economic relationships between former lords and subjects, made the issue of ensuring the economic viability of the henceforth independent peasant landholdings more pressing than ever (Řepa, 2020: 4). Besides this socioeconomic transformation, the revolutions of 1848 had opened the way for a reform of the governance of agriculture that brought the imperial government and the provincial agricultural societies into a closer relationship (Kiryu, 2020). After much lobbying, agricultural interest groups obtained the nomination of a short-lived Ministry of Agriculture (1848–1853) staffed mainly with agronomist from the Viennese Agricultural Society. This ministry defined a comprehensive scheme of collaboration in which the provincial agricultural societies and their district branches would serve as a relay of the state on the local level (*Verhandlungen des landwirthschaftlichen Congresses*, 1849: 18–29). The model of governance survived when agricultural matters were passed on to the Ministry of the Interior in 1853. At first, the improvement programs of the 1850s continued to rely on the system of awards. The Ministry of the Interior generalised it to all the provinces of the empire and funded “state-prizes” (Ger. *Staatspreise*) of much higher value specifically targeting the small landowners. In order to adapt to

local conditions, the provincial agricultural societies actively contributed to shape the prizes by defining the modalities of attribution together with the local Lieutenancy and by organising the exhibitions.¹⁴

The continuation of the liberal mode of improvement eventually showed important limits from the zootechnical point of view. Individual peasants could hardly access the market of excellence breeds where a single Pinzgauer bull could cost up to 10,000 fl (*Abbildungen österreichischer Rindvieh-Racen*, 1859: 1). Moreover, zootechnicians from the agricultural societies had started to wonder already in the 1840s how to intervene more directly and efficiently in the peasants’ herds to obtain a population of animals of the desired quality. In that matter, zootechnicians were faced with all the animals that fell outside of their category of *Rasse* defined by constant heredity, which they called *Landschläge* or ‘local varieties’ and represented the majority of the cattle population of Cisleithania (as far as statistical data about breeds could tell anything meaningful in that matter; Lorenz von Liburnau, 1878: 10 and map XXI). The distinction between ‘breed’ and ‘*Landschlag*’ created a hierarchy of economically desirable and undesirable animals within the cattle population. In this conceptual framework, the genealogical element at the heart of the understanding of breed provided zootechnicians with a solution to think about the improvement of cattle as the progressive “ennoblement” (Ger. *Veredelung*) of whole populations over a few generations. “Elevating” (Ger. *Hebung*) the stocks of animal to a higher status became an explicit aim of husbandry improvement programs.

Zootechnicians started to consider cross-breeding as the most efficient way to improve cattle on a large scale. While the technique of inbreeding and its most emblematic practitioner, Robert Bakewell, usually loom large in narratives of husbandry improvement, recent histories of breeding techniques have highlighted that crossing played a crucial complementary role in the formation of modern breeds (Theunissen, 2012: 200–207). For Austrian zootechnicians, cross-breeding was moreover a very pragmatic choice given the large scale of the intervention they aimed at. Within the agricultural societies, they progressively developed modes of intervention aiming at crossing the peasants’ lower quality *Landschläge* with purebred animals, using the ongoing political reforms of the empire to reach deeper in the countryside. From the 1830s, zootechnicians and local civil servants became interested in a communal form of property of the bulls, known as *Gemeindestiere*, which they perceived both as a cause of the low quality of rural livestock and as a potential lever to influence peasant practices beyond the reach of the landlord’s traditional power.¹⁵ The political reforms of the early 1850s that had abolished the landlords’ political and administrative role had deepened this interest in the autonomous municipalities (Ger. *Gemeinde*), which henceforth represented

¹⁴ OeStA – AVA – LW – LWG – Akten – 143 – N°62 and N° 177.

¹⁵ TLA – Kreisamt Imst – Forst und Kultur – Faszikel 302 (1840) – N°7; Colloredo-Mansfeld, 1836; Eckel, 1848: 26 and 37–38.

“the fundament of the whole state” according to the Ministry of Agriculture (*Verhandlungen des landwirthschaftlichen Congresses*, 1849: 24).

Agricultural improvers of the mid-century developed a set of regulations to oversee the reform of breeding practices at the communal scale. In rural communities, bulls were indeed often managed as a form of common property, according to a variety of local rules that became a matter of complaint for many agricultural improvers.¹⁶ Each village usually reared one or two bulls, whose care was entrusted to a member of the community either permanently, or in yearly turns. The bull’s custodian usually benefited from a compensation in form of money or of the exclusive use of a stretch of common land (the *Stierwiese* ‘bull’s meadow’). In the eyes of agronomists, these bulls were the main cause of the poor state of the *Landschläge*, since their yearly turnover had prevented them from ensuring lasting improvements of the herds. But few improvers recommended privatising the bulls. Rather, members of the agricultural societies saw the common management of bulls as a more effective opportunity to reform the peasants’ breeding practices, provided the implementation of an adequate monitoring.

If the municipalities were nominally the “fundament” of the institutional order and the bulls still possibly a form of common property, the improvers’ interventions actually reduced municipal autonomy through the supervision by higher levels of agricultural expertise, in a process comparable to the one that affected communal forests at the same time (Bonan, 2016: 600–607). The agricultural societies encouraged the hiring and training of competent communal herders by the municipalities to ensure the adequate care and continuity of use of the bull. From the 1860s, they also lobbied the provincial diets and imperial government to set up administrative commissions, presided over by veterinarians appointed by local administrations, which would control the choice and health of the bulls.¹⁷ In addition to such regulations around the animals, zootechnicians searched for means to influence rural communities’ choices of the animals themselves, first through the existing system of exhibitions and awards, and from 1868 by subsidising the purchase of bulls. When a ministry of agriculture was reinstated in 1868, the Cisleithanian government launched a large-scale policy of subsidies for virtually every branch of agriculture in the crownlands under its rule, and cattle husbandry attracted a large part of the budget (*Subventionen zu Rindviehzuchtsprämien*, 1871).

The subsidy policy for cattle breeding operated in a decentralised manner “without strict uniformity”, based on the cooperation between the ministry and the agricultural societies.¹⁸ While the Viennese government provided the funds, the choices of how and

¹⁶ Agricultural societies conducted several enquiries about communal bulls in the late 1850s and early 1860. For Lower Austria: OeStA – AVA – LW – LWG – Karton 158 – N°130; N°155; N°156; N°167 and Karton 159 – N°167; N°201; N°202. For Tirol, within a larger commission of the Ministry of Commerce and Economy to several provinces: TLA – Statthaltereie – Cultur – Karton 319 – 1862 – N°7450/692 and 1863 – File ‘Verbesserung der Rindviehzucht durch Haltung von Zuchtstieren’.

¹⁷ OeStA – AVA – LW – LWG – Akten – 254 – N°592.

¹⁸ OeStA – AVA – LW – Ackerbauministerium (AM) – Landeskultur (LK) – Akten – 57 – 7a – 6234/1854.

where to spend the money were once again left to the provincial agricultural societies and their district branches in order to adapt the projects to the local conditions. The imperial administration supervised the subsidies directly only in Dalmatia, where the very short-lived agricultural society founded in 1850 had already ceased activity by the 1860s. Most societies opted to subsidise bulls, often in financially creative ways to reduce the final price for the peasant. In Lower Austria, for instance, the Agricultural Society bought animals at its own expense and then sold them at auction, starting at half the market price of the animal and compensating the difference with the ministerial subsidy.¹⁹ This system made the bulls accessible to small landowners and rural communities, while the agronomists from the central committee of the society could pre-select which breeds would be offered in which district.

Local societies kept a large degree of autonomy when making decisions about the subsidies. In Tirol, several local branches of the agricultural society opted for a direct distribution of bulls to rural communities, while others used their share of the subsidy to grant awards during cattle exhibitions.²⁰ In some cases, the latter choice was explicitly motivated by diverging political positions regarding the level of autonomy that should be left to breeders in the provinces. The Agricultural Society of Vorarlberg stuck to the traditional model of prizes. Its president, Count Carl Belrupt-Tissac justified this choice in a strikingly critical report that asserted his confidence in a model of improvement based on self-help and enlightenment of the peasants by the educated landowners, and argued against the monitoring by the imperial administration when sufficient provincial expertise was provided.²¹ The first years of the collaboration between the Agricultural Society of Vorarlberg and the imperial administration were marked by tensions about the level of involvement of the Viennese government and the choices of subsidised agricultural sectors. Belrupt often criticised the ministry in his reports for supervising too closely the societies, for thinking in too “theoretical” terms and for not leaving enough local autonomy to the provinces.²²

The subsidy policy aimed at promoting the circulation and settling of select breeds across the empire, but it progressively acquired an additional conservationist objective of maintaining the quality of breeds over the long run in an increasingly commercialised economic system. Bull distributions confronted agricultural societies with an increasing problem of finding purebred reproducers. Some breeds, such as the Styrian Mürztaler

¹⁹ OeStA – AVA – LW – LWG – Akten – 248 – N°1498; OeStA – AVA – LW – AM – LK – Akten – 57 – 7a9 – N°4720/1504.

²⁰ OeStA – AVA – LW – AM – LK – Akten – 19 – 7a14 – N°179/67 and N°6616; 39 – 7a14 – N°3596/1435; 58 – 7a14 – N°2715/822.

²¹ OeStA – AVA – LW – AM – LK – Akten – 57 – 7a – N°2314/706.

²² On the uses of the subsidies: OeStA – AVA – LW – AM – LK – Akten – 9 – N°1558/874; 19 – 7a14 – N°9/5; 39 – 7a14 – N°1497/555. On tensions with the administration: TLA – Statthalerei Tirol und Vorarlberg – Cultur – Karton 321 – 1868 – File ‘Landwirtschafts-Verein in Vorarlberg’ – N°1780/70; N°3246/130; N°7856/287 and N°13550/498.

and the Bavarian Allgäuer, were so popular in the 1870s that the Viennese Agricultural Society could barely find enough bulls to answer the demands it received.²³ Moreover in the case of dairy breeds, rural breeders faced the competition of another kind of husbandry, the urban dairymen. The latter used to buy the most productive animals in terms of milk yields at higher prices from the countryside, but they did not let them reproduce because of considerations tied to the dairy's profitability, since high fodder prices in the cities made it economically unsustainable to keep males or females when they did not produce milk (Schreibers, 1847: 173–174). The city of Vienna was home to a population of four to six thousand cows (around ten to twelve thousand counting the suburbs) that were sold to butchers at the end of their lactation cycle and replaced by new animals bought in the countryside every year.²⁴ Additionally, the high level of urban meat consumption in general made the city appear to be a “meat-devouring monster” where attractive meat prices pushed the breeders of the immediate surroundings to sell so many young animals that they could not ensure the reproduction of their herds by themselves.

The capital city was thus a highly consuming dead-end from the point of view of breed selection. Some members of the agricultural society considered that large stretches of Lower Austria, “from Wolkersdorf to Wiener Neustadt and from Tulln to Bruck an der Leitha”, were “lost for breeding [*Viehzucht*]”.²⁵ Styrian and Salzburger agronomists complained that the Viennese dairymen emptied their countryside of the best animals and threatened the maintenance of the Mürztaler and Pinzgauer as productive breeds in the long run. As the public veterinarian (Ger. *Landestierarzt*) from Salzburg, Jacob Lechner warned, this problem did not concern only the animals, but the peasants who reared them as well. According to him, selling the most beautiful animals outside of their home region jeopardised the value of the herds that constituted the peasants' main source of income, and would eventually force the latter into rural exodus.²⁶ Urban dairymen were not the only ones responsible for such risks of trade. In Tirol, Adolf Trientl warned of similar effects of the increased success of Tyrolean cattle on export markets.²⁷

The agricultural societies and the ministry consequently adapted their selection policies to integrate longer economic and zootechnical temporalities. A first answer to the challenges of commercialisation was to use the governmental subsidy to found nurseries (Ger. *Pépinieren*) that consisted of a small herd of a bull and a few cows

²³ OeStA – AVA – LW – LWG – Akten – 288 – 633; 297 – N°316 and N°590.

²⁴ WStLA – 2.8 – *Innungen und Handelsgremien – Milchmeier und Milchverschleißer* – B39/1 and B39/2; *Niederösterreichisches Heerdbuch*, 1873: 7 and 12.

²⁵ OeStA – AVA – LW – LWG – Akten – 252 – N°2520.

²⁶ OeStA – AVA – LW – LWG – Akten – 176 – N°1409; OeStA – AVA – LW – AM – LK – Akten – 101 – 7a11 – N°3724/590.

²⁷ Trientl, 1873. Trientl emphasised this point again in a report for the Lieutenancy after the law was passed: TLA – Statthalerei Tirol und Vorarlberg – Cultur – Karton 332 (1877 Zl. 97-19822) – N°13539/2090.

managed through a form of public-private partnership. The animals were entrusted either to agricultural schools or to a large landowner who possessed the means to rear them in good conditions. With this system, the Lower Austrian Agricultural Society created its own sources of supply for the bull distributions, while the large landowners who hosted the cows mainly benefited from their milk production and its expanding urban outlets.²⁸ Distributed bulls could also be leased for reproduction to the surrounding breeders, in a system of public “breeding stations” (Ger. *Zuchtstationen*) modelled on the stud farms in use for horses since the eighteenth century. In any case, these bulls as well as their offspring remained the property of the agricultural societies or of the state itself, as for instance in Dalmatia where they were known as “*tori aerariali*”. As the agricultural society in Trient/Trento explained, this form of property was judged more efficient than private property in order to impose some control of the custodian’s practices through the agricultural societies.²⁹

Individual breeders often voluntarily participated in the distribution programs, but their own interests could diverge from the improvers’ expectations and lead to distortions from the original programs. In Dalmatia, local civil servants actively advertised the bull distributions and easily found more applicants to host the animals than necessary. The district captain of the island of Lessina/Hvar even managed to find eight applicants from the same village, seven of them illiterate and signing with a simple cross.³⁰ Other similar cases suggest that small breeders generally welcomed this policy, although their own interests in the scheme may have differed from the ones of the administration and agricultural societies. The peasants from Lessina/Hvar probably took the program as a gift of animals without much afterthought for the larger project of public breeding stations. Another applicant from Arbe/Rab named Pietro Galzigna first asked to adapt the conditions imposed by the state for the use of the “public bull”. Galzigna finally received a bull after complying formally with the administration’s initial regulations, but his actual use of the animal is harder to document.³¹ According to Ferdinand Kaltenecker, who conducted a survey of cattle breeds for the Ministry of Agriculture in Tirol, many communities which received subsidised bulls seemed to think more about getting their taxes back than about improving their livestock.³²

Local breeders sought to adapt the improvement programs to their own practices and interests in more or less formal ways. Several local associations from the district Ober Manhartsberg directly petitioned the central committee of the association in 1878 to contest the latter’s choice of Allgäuer and Montafoner cattle as the only subsidised breeds in Lower Austria. The petitioners, led by politically active landowners like

²⁸ OeStA – AVA – LW – LWG – Akten – 286 – N°203 and N°205; 287 – N°403; 288 – N°633.

²⁹ OeStA – AVA – LW – AM – LK – Akten – 124 – 7a – N°6346/743.

³⁰ HR – DAZD – 88 – 2. Odjelni spisi – Kut 2183 (1870) – BR-38 – N°11931.

³¹ HR – DAZD – 88 – 2. Odjelni spisi – Kut 2183 (1870) – BR-38 – N°14119.

³² OeStA – AVA – LW – AM – LK – Akten – 172 – 7a14 – N°8059/791.

Georg von Schönerer but also including smaller breeders as well as butchers and cattle traders, argued that these breeds were not compatible with the local Gföhler cattle, which they had tried to improve over the past forty years with visible progress evidenced in the yearly exhibitions. They emphasised among others that the imported cattle was predominantly specialised in dairy production, while the Gföhler had specialised in draught work and fattening for exports to Germany. The incompatibility was not just a matter of productive abilities of the animals per se, but also of marketing with respect to the animals' colour. As the petitioners emphasised, grey cattle in general were increasingly harder to export to Western Europe because this colour associated them with the "Podolian" breeds from Hungary, the Danubian Principalities and Russia which also transmitted the devastating virus of cattle plague. Since importing countries like Germany increasingly closed their borders to grey cattle in the 1870s, the breeders from Ober Manhartsberg attempted to select cattle to obtain a more easily marketable colour and rejected the "grey" Allgäuer and Montafoner.³³ According to the president of the Zwettler Agricultural Association, the subsidised grey breeds had found purchasers nevertheless, but only for speculation purposes instead of for the planned crossings to improve the local livestock.³⁴ The petitioners eventually obtained an enlargement of the list of subsidised breeds that reflected their own local interests.³⁵

By the end of the 1870s, the Cisleithanian government revised its policy of subsidies along new guidelines that furthered the territorial approach to the promotion of cattle breeds, with the explicit aim of rationalising governmental spending and increasing its efficiency on the ground. At the level of each province, the agricultural societies were tasked with delimiting "breeding districts" (Ger. *Zuchtgebiete*), each of which had to be associated with a specific list of breeds which would be the only ones to receive the state subsidies.³⁶ In practice, this ministerial demand incorporated some local demands and systematised earlier practices of the agricultural societies. The Lower Austrian Agricultural Society had published for instance two maps based on the livestock surveys in 1873 that presented the distribution of breeds and specialisations between dairy production and "breeding" (Ger. *Aufzucht*) at the scale of each district, depending on their capacity to ensure the reproduction of the herds by themselves (*Cultur-Atlas von Nieder-Oesterreich*, 1873: maps 20 and 21; *Niederösterreichisches Heerdbuch*, 1873). The committee tasked with the delimitation of the districts, including the Landeskultur-Inspector from the imperial administration and the two itinerant teachers

³³ OeStA – AVA – LW – LWG – Akten – 307 – N°430 to 433.

³⁴ NÖLA – 1.2.1.3 Landstände und Landesausschuss – F48 Veterinärwesen – K01 – 48/10 (1876-1880) – N°14058/2595 (XXIV *der Beilagen zu den stenogr. Protocollen des niederösterreichischen Landtages*, V. Wahlperiode, Beilage C).

³⁵ OeStA – AVA – LW – LWG – Akten – 307 – N°460.

³⁶ TLA – Statthalterei Tirol und Vorarlberg – Cultur – Karton 332 (1877 – Zl. 97-19822) – N°6954-1142: *Erllass des Ackerbauministeriums an die sämtliche Landwirthschaftsgesellschaften, an den Landesculturrath in Prag und die Statthalterei in Zara.*

from the Agricultural Society, used these maps as a basis to differentiate the breeding districts. They also incorporated local demands like the one from the associations from Ober-Manhartsberg, as well as from the southern districts of the Ober-Wiener-Wald who managed to obtain distinctive breeds.³⁷ The map of breeding districts (Figure 1) overlapped for a large part with the 1873 maps of the Agricultural Society and their update around 1880 by Franz Zoepf, the Landescultur-Inspector of Upper Austria who was conducting a survey of cattle breeds commissioned by the ministry of Agriculture (Zoepf, 1884). In neighbouring Upper Austria, similar maps and surveys enabled Zoepf to delineate the breeding districts by differentiating regions of “breeding”, regions of “use” (corresponding mainly to cities) and “mixed” regions (Ger. *Zucht-, Nutz- und Misch-Gebiete*). The map proposed by Zoepf in his project of breeding districts was an adaptation of a map of breed distribution published in his survey of Upper Austria breeds. As Zoepf emphasised in his report, his delineation of the districts facilitated the consolidation of local Austrian breeds like the Pinzgauer, but entailed the gradual abandonment (and eventually disappearance) of some local varieties as well.³⁸ The delineation of the districts also left some of them out of the subsidies, for instance in Lower Austria the districts around Vienna, Kirchberg am Wagram, Rötz, and the South-Eastern part of Unter-Manhartsberg.

Zoepf’s proposal for breeding districts highlighted two crucial consequences of the territorialisation of breeding improvement for the cattle of the Habsburg Empire. First, the aim of the breeding districts was to define some regions which would practice *Nachzucht* as an activity in itself, and supply offspring to other regions that could focus more on work and dairy or, secondarily, meat production. The delimitation of breeding districts institutionalised a fourth specialised use of cattle in addition to the three traditional ones defined by Ehrenfels in the 1830s: some animals were henceforth supposed to produce offspring as an activity valuable in itself. In this way, the promotion policies created a sharper distinction between those regions that “bred” cattle in a strict sense (Ger. *Viehzucht*) and the ones that merely “reared” cattle for a specialised production with less care for the next generation of animals (Ger. *Viehhaltung*). Second, the spatial implementation of this distinction embedded the economy of husbandry in an extended regime of animal circulations that was necessary to its functioning, making several districts and crownlands interdependent. Distributions of several hundreds of purebred reproducers and crossings with local varieties sustained the settlement of breeds from Styria (Mürztaler, Murbodner, Mariahofer), Moravia (Kuhländer), Vorarlberg (Montafoner), or Salzburg (Pinzgauer) in targeted areas of Lower Austria (Figure 1). Additionally, the making of a more productive husbandry

³⁷ NÖLA – 1.2.1.3 Landstände und Landesauschuss – F48 Veterinärwesen – K01 – 48/10 (1876-1880) – N°14058/2595 (XXIV *der Beilagen zu den stenogr. Protocollen des niederösterreichischen Landtages*, V. Wahlperiode, Beilage D).

³⁸ OeStA – AVA – LW – AM – LK – Akten – 210 (1878) – 7a10 – N°2768/292; Zoepf, 1881.

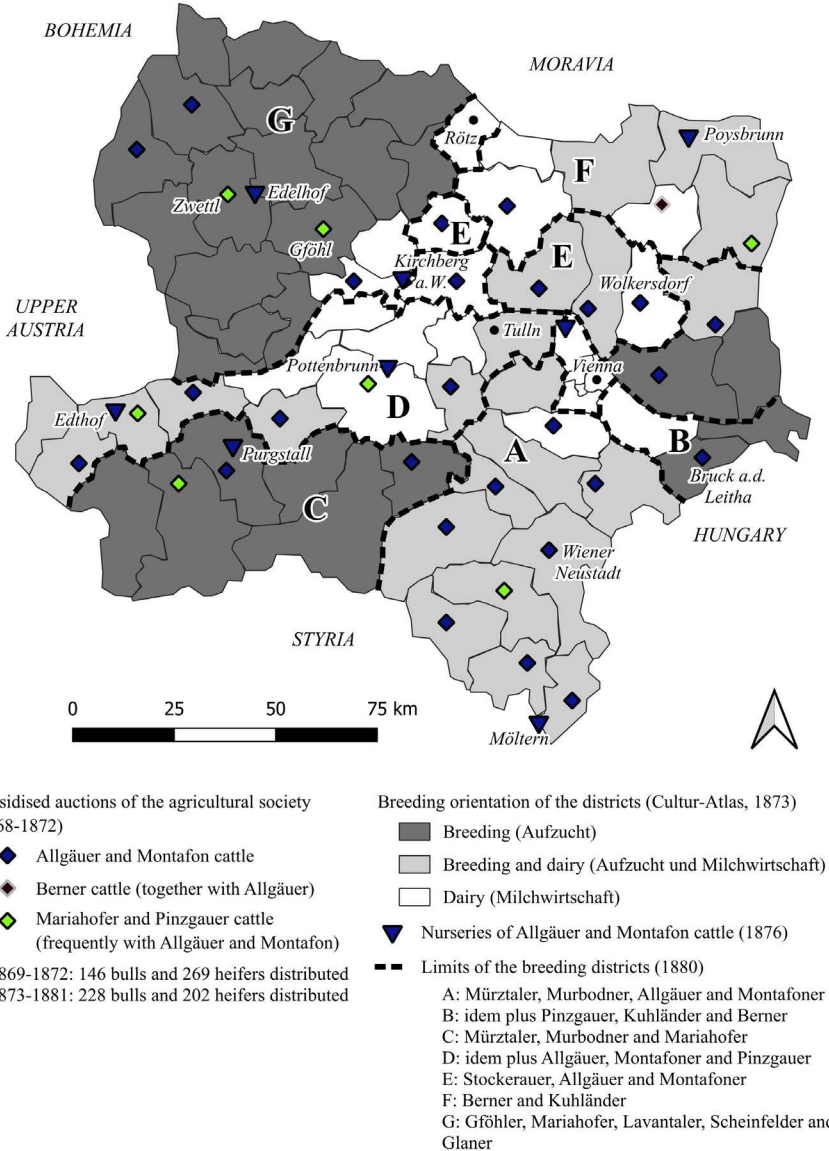


Figure 1: Breed subsidies in Lower Austria 1868–1880 (Cultur-Atlas von Niederösterreich, 1873; Niederösterreichisches Herdbuch, 1873; Zoepf, 1884). Cartography by Corentin Gruffat.

sector relied on larger movements of dairy and fattened cattle to the “use districts”, especially cities and their surroundings. The territorialisation of breeding incorporated animals and breeders in a broader system of reproduction and circulation conceived at the scale of the empire.

Conclusion: Cattle breeding and the materialisation of an agricultural empire

Programs of breed selection increasingly took the shape of a government of the reproduction and circulation of cattle populations. This mode of government was the outcome of a gradual political construction. Among many other issues, cattle husbandry provided the material for a process of empire-building in the nineteenth-century Habsburg Monarchy. Programs of breed selection had started in the social setting of the *Grundherrschaft*, but the practice of agricultural exhibitions had promoted new forms of relationships and identities for farmers and cattle. As the programs expanded, they reframed institutional relations between a range of actors including municipalities, agricultural societies, and imperial administrations. Distributions of selected cattle expanded the reach of public action into the countryside by incorporating everyday practices of husbandry and, eventually, even turned improvement schemes into a routine activity that regularly returned in the form of subsidies, statistics and map-making. In that way, making cattle more productive incorporated concerns of reproduction and circulation of the animals that participated in a material and institutional integration of the empire.

A crucial aspect of this process of integrating “Austrian” cattle into the construction of the “*Agrarstaat*” was the large level of decentralisation and negotiated autonomy of local actors. Breed selection was not imposed “from above”, but developed at the multiple interfaces between state and civil society. It often started with local or provincial initiatives, which the imperial government scaled-up in attempts to affect its whole territory, and which local agricultural societies and individual breeders readapted to their own purposes. Agricultural improvers often justified the decentralisation with the need to adapt to local environmental and social conditions, but this decentralisation also enabled them to mobilise the resources, knowledge, and animals necessary to the implementation of their schemes. In this light, the process of husbandry “improvement” that took place in the nineteenth century does not appear as a simple, dual relationship between animal and breeder or zootechnician mediated primarily by technology, unlike what most of the literature focusing on the model of the “animal-machine” suggests. The “birth of modern breeds” appears much more as the outcome of a political construction that linked breeders, animals, breeding experts, and civil servants in specific institutional settings, making them all work in their own way and with more or less coordination towards the materialisation of the “agricultural state” project.

Research data statement

The author states that the article is based on archival sources, which are cited in the list of references below. The article is based on research data that is available in public domain resources as well as publicly accessible archival and museum collections that are cited in the list of references.

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»Habsburške« pasme? Selekcija pasem in oblikovanje kmetijske države v Habsburškem cesarstvu 19. stoletja

Članek preučuje proces odbire goveda v habsburški monarhiji v 19. stoletju, tj. v času, za katerega je značilno »rojstvo« sodobnih pasem goveda. Oblasti in kmetijska društva oziroma družbe so v tem obdobju spodbujali razstave goveda, preučevanje »pasem« (nem. *Rassen*) in z denarno pomočjo usmerjali vzrejo izbranih skupin goveda. Vse to je pomembno preoblikovalo odnose med rejci in živalmi. Poleg prizadevanj za dvig produktivnosti v kmetijstvu so bili ti procesi del širšega političnega projekta, zaradi česar je bila habsburška država z njimi tesno povezana. Izbira pasem je pridobivala obliko upravljanja razmnoževanja in razširjanja določenih vrst goveda na ravni celotne monarhije. Živali so predstavljale materialno osnovo za razvoj širših procesov oblikovanja države in krepitve imperialne integracije. Avtor poudarja, da programov pasemskega odbiranja ni zasnovala ena sama skupina akterjev, ki bi jih vsilila »od zgoraj«. Nasprotno, nastali so na podlagi številnih oblik sodelovanja med različnimi akterji na več političnih ravneh, torej tudi »od spodaj«. Lokalni akterji so si na primer prizadevali prilagoditi izbiro pasem lokalnim razmeram, interesom in praksam. Proučevanje programov odbire goveda tako osvetljuje konkretne mehanizme in prakse, s katerimi so bile živali vključene v materialno uresničevanje širših vizij Habsburške monarhije kot kmetijske države.