

## Breeding Nationalism: Conceiving the Native Breeds

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The article researches the influence of nationalism on shaping livestock classification and the concept of animal breeds. Analyzing 19<sup>th</sup> to 21<sup>st</sup>-century animal husbandry literature from Carniola and Styria, it demonstrates how agricultural experts researched the origin of certain groups of livestock to legitimize the conception of native national breeds. The study reveals the integration of animals into the process of nation-building and thus signals a modern redefinition of societal relationships with the animal world.

▪ **Keywords:** classification, categories, animal husbandry, agricultural science, animals

Članek raziskuje vpliv nacionalizma na oblikovanje sistemov klasifikacije živine in koncepta živalske pasme. Prispevek na podlagi analize literature o živinoreji na Kranjskem in Štajerskem od 19. do 21. stoletja prikazuje, kako so kmetijski strokovnjaki uporabili metode raziskovanja izvora določenih skupin kmetijskih živali, da bi legitimirali koncept avtohtonih nacionalnih pasem. Študija tako prikazuje vključevanje živali v proces oblikovanja naroda, ki kaže moderno oblikovanje družbenih odnosov z živalmi.

▪ **Ključne besede:** klasifikacija, kategorije, živinoreja, agronomija, živali

### Introduction

Recent decades have seen growing interest in livestock classification. Within this literature, some studies have dedicated chapters or sections to the influence of nationalism in shaping these systems. Scholars have examined the construction of livestock categories, showing how states deployed these classifications in the Third Reich (Saraiva, 2017; Sax, 2017), Great Britain and its colonies (Ritvo, 1987; Da Cal, 1992; Ritvo, 1997; Woods, 2017), and Southern Africa (Swart, 2007a, 2007b) to advance national economic and political projects, such as colonization and asserting racial identity. Additionally, individual breeds – such as Chillingham cattle (Ritvo, 1992), Hungarian Grey cattle (Bartosiewicz, 2017), and Lipizzaner horse (Golež Kaučič, 2018; Vičar, 2018) – have been studied as national symbols. This research demonstrates that the formation of modern breeds was intertwined with that of national identities, framing specific animal categories as important elements of national identities. While scholarship has convincingly demonstrated the utilization of national livestock categories to address concrete national interests which shaped them, it tended to either overlook or inadequately engage with a crucial dynamic: the technical process by which these categories were created and legitimized. This is the dynamic that I will explore in this paper.

Focusing on 19<sup>th</sup>- and 20<sup>th</sup>-century development of agricultural sciences, this study explores livestock classification during a period of profound sociopolitical transformation.

In keeping with the studies cited above, I contend that classification systems are products of their social contexts. However, by focusing on understudied border regions between two national groups, this study offers the neglected insights into how other historical contingencies shape categorization practices. The analysis centres on Carniola and Styria – a historically contested zone between German and Slovenian national spheres – where livestock classification became an arena for asserting national distinctions. In this borderland context, breed categorization emerged as a tool for drawing concrete historical boundaries between the two nationalities, particularly through competing claims about livestock origins and their incorporation into divergent national narratives.

To analyze the process, I employ Louis Althusser's framework of the spontaneous philosophy of the scientists, which demonstrates how ideology operates within science, not necessarily by changing the methodological approaches for producing data, but rather by framing the questions researchers ask and the answers they deem valid during interpretation (Althusser, 1990). This framework also provides a new perspective on Bartosiewicz's analysis of the Hungarian Grey cattle. While his study convincingly demonstrates how this national category was constructed using apparently neutral methods, the author overemphasized the problematic aspects of these methods, which became apparent in hindsight, but overlooked that national breed categories appeared legitimate precisely because they were produced by these seemingly objective methods.

The analysis at hand is grounded in case studies drawn from animal husbandry literature published from the 19<sup>th</sup> to the 21<sup>st</sup> centuries in Austria-Hungary, the Republic of Austria, and the Republic of Slovenia. The first section identifies the key actors and core methodological developments in livestock classification during the nineteenth century. Building on this foundation, the next section analyzes early attempts to implement these historical methods to establish native breeds. The final section examines the culmination of this process in the institutionalization of native breeds within the nation-state framework.

### **On the origin of breeds**

Modern livestock classification systems, including their concepts of breeds, emerged during the 18<sup>th</sup> and 19<sup>th</sup> centuries (Ritvo, 1987; Da Cal, 1992; Ritvo, 1997; Derry, 2015; Bartosiewicz, 2017; Pavković, 2025). This chapter does not seek to demonstrate the social construction of livestock classification systems at large, nor does it attempt to establish (dis)continuities in historical livestock classification systems or provide an in-depth analysis of their institutionalization within agricultural sciences (for that see Pavković, 2025). Instead, it focuses on key developments in modern livestock classification systems that led to the creation of categories imbued with ideological significance.

To understand how nationalism shaped these systems, we must examine its concrete mechanisms of influence. This involves analyzing how actors used these systems to produce specific kinds of data, which they then interpreted to shape or modify categories in line with their national perspectives. Consequently, this section also identifies the actors who were recognized by the state as experts on matters of agriculture and livestock classification, and the institutions that they represented.

A defining innovation of modern livestock classification systems was the implementation of new parameters (which information was gathered) and methods (how information was gathered and analyzed) for breed differentiation (Pavković, 2025). In the Habsburg Monarchy these novelties were developed and implemented by an emerging group of agricultural experts. Many worked in specialized institutions – agricultural societies – which were part of a broader European phenomenon tied to the 18<sup>th</sup>- and 19<sup>th</sup>-century knowledge production and dissemination. In the Habsburg hereditary lands, agricultural societies were organized at the level of individual duchies, with many agricultural experts simultaneously belonging to several such societies. Throughout this period, the state sought to implement doctrines for increasing economic productivity, while agricultural societies functioned as semi-private, semi-state-funded institutions that generated agricultural knowledge which legitimized state policies (Britovšek, 1964; Valenčič, 1970; Bruckmüller, 1977; Umek, 2006; Vodopivec, 2008; Jones, 2015; Pavković, 2025).

Agricultural experts, who appeared in the Habsburg Monarchy in the late 18<sup>th</sup> century and particularly during the 19<sup>th</sup> century, became leading authorities on agricultural matters, including animal husbandry and livestock classification. Much of their work was directed by the state, exemplified both by small regional missions, for instance assessments of cattle for monetary rewards, and large state-funded projects such as the 1870s cattle classification initiative in the Austrian Alpine regions. Although preexisting classification systems among local farming communities were noted, the state sought to impose new, institutionalized and unified methods, implementing two primary parallel sub-species categories: “breeds” and “races” (*Racen*) and “local varieties” (*Landschläge*) (Gruffat, 2025; Pavković, 2025).

To understand the rationale behind novel classification methods, a basic overview of the 19<sup>th</sup>-century theories of livestock classification in the Habsburg Monarchy is needed. Most analyzed animal husbandry publications presented existing breeds without discussing the theory and methods that led to the formation of breeds, either as a universal category or for specific breeds. A sufficient overview can be gained in a publication on agricultural knowledge written by an agricultural expert, Franz Xaver von Hlubek (1802-1880), a member of both the Carniolan and the Styrian agricultural societies in the middle of the 19<sup>th</sup> century. This work likely reflects, at least partially or sufficiently, the existing understanding of the theory of livestock classification among the agricultural experts in Carniola and Styria. Only crucial elements of the theory

are presented here to explain the implementation of methodological approaches for classification.

A key principle in this theory of classification is the influence of environment on breed formation. Hlubek argues that distinct breeds arise from distinct environments – meaning there are only as many breeds as there are environmental conditions. He further contends that when a breed is introduced to a new environment, it gradually transforms into the breed native to that setting. Crossbreeding, in his view, does not produce a new breed but rather a hybrid (*Mischling*), which will through generations eventually revert to the dominant local breed under environmental pressures. This historical perspective explains why 19<sup>th</sup>-century experts documented and investigated lineage. By examining an animal's ancestry – whether its parents and grandparents belonged to the same breed – they sought to distinguish breeds, as they termed them, from unstable mixed stock (Hlubek, 1853). While the theory expanded over the nineteenth century to include livestock of mixed origin as breeds (Pavković, 2025), the notion that a breed is defined by its lineage remained.

These theoretical principles were put into practice by state-employed agricultural experts tasked with investigating and classifying the cattle of the Habsburg Monarchy's Austrian lands. One of the primary goals was to identify and describe distinct categories of cattle, including their productive capabilities and suitability to specific environments. According to the Viennese Ministry of Agriculture this mission would survey the state of cattle husbandry to guide the development of administrative measures for its improvement (Gruffat, 2025; Pavković, 2025). For this survey, the state commissioned a group of agricultural experts: imperial advisor (*Kaiserlicher Rath*) and royal professor Ferdinand Kaltenecker for Austrian Alpine lands (Kaltenecker, 1879; Gruffat, 2025; Pavković, 2025), professor of agriculture at the agricultural school in Gorizia and a member of the Carniolan agricultural society Franz Povše for Austrian Karst and coastal lands (Pavković, 2025), imperial royal farming inspector (*k. k. Landescultur-inspector*) Franz Zoepf for Upper and Lower Austria (Zoepf, 1881), August Günther for Bukovina (Gruffat, 2025), economical director (*Oeconomiedirector*) in Prague Heinrich Seidl for Bohemia (Lassmann, 1899), and an agricultural official (*landwirtschaftlicher Beamte*), professor at the agricultural school in Silesia, travelling teacher of agriculture and secretary of the agricultural and forestry association in Weidenau, Emil Baier for Silesia (Baier, 1900). These selected “surveying authorities” (*Erhebungs-Organen*) were advised to turn to regional agricultural societies and their branches for directions with selecting key areas for conducting the survey (Kaltenecker, 1879).

For analysis, I focus on the work of Ferdinand Kaltenecker (1843-1911), an agricultural expert who conducted the survey of Austrian alpine cattle breeds. His first book of the series Cattle in Austrian Alpine Lands (*Rinder der Oesterreichischen Alpenländer*) was published in 1879, and contains the results of his survey of cattle in the valleys of the rivers of Inn and Lech in Tyrol. For our investigation into the development of

classification methods his work is particularly useful, because it contains introductory descriptions of surveying methods, which were directed by the Ministry of Agriculture and were initially developed in 1870 (Kaltenegger, 1879).

His published work describes a crucial approach. In his book, he emphasizes the use of three key records: (1) lists of mating (*Sprungregister*), (2) herd (*Heerdbuch*), and (3) pedigree books (*Zuchtbuch*). By cross-referencing lists of mating and herd books, experts could link offspring to specific bulls and cows. The Ministry of Agriculture's instruction notes that while smallholders relied on mating records, large estates maintained comprehensive herd books, which he advocated consolidating into regional registries. As explained in Kaltenegger's work, lineage tracking served a pragmatic economic purpose: evaluating results of breeding by analyzing offspring traits (Kaltenegger, 1879).

The implementation of state-sanctioned methods demonstrates two crucial points. Firstly, the existing forms of classification used by populations in the Habsburg Empire were replaced by novel classification, based on a different set of methods and parameters, which were conducted by a group of selected agricultural experts (see also Pavković, 2025). Secondly, origin research became important in this novel system of classification and functioned as a material practice for classifying cattle to optimize animal husbandry economics. Yet, as the following section will illustrate, the data produced by these classification techniques served not only specific economic demands (cf. Derry, 2020), but were also, in some cases, used by agricultural experts and zootechnicians to interpret certain breeds as national breeds.

### **National origins of breeds**

The practice of tracing the origins of modern breeds remains central to their classification even today. In this chapter, I explore how various historical actors employed this approach and expanded it by incorporating historical methods and genetic analyses to investigate the alleged early histories of breeds. Agricultural experts, scholars of animal husbandry, and university professors relied on fragmentary historical descriptions of livestock to draw connections between past animals and the modern breeds that resembled them, thereby constructing direct lineages (cf. Borneman, 1988). Significantly, these purported ancestors of contemporary breeds were frequently tied to historical populations – themselves framed as progenitors of modern nations – thus embedding these animals within national symbolism.

This section examines several cases where ideological influences shaped breed classification, focusing on sources from Austria-Hungary, Austria, and Slovenia. Rather than presenting a strict chronology, the analysis highlights key documents from the 19<sup>th</sup> to the 21<sup>st</sup> centuries, each reflecting period-specific interpretations of breed origins

and their incorporation into national mythmaking. The selected sources reveal how the concept of breeds evolved, becoming entwined with nationalist narratives before being institutionalized within the legal frameworks of states.

One of the earliest attempts to link a modern breed to historical populations in Austria-Hungary was made by Janez Bleiweis (1808-1881), a Carniolan-Slovenian veterinarian, agricultural expert, and editor of *Kranjske in Rokodelske Novice* – a Carniolan newspaper dedicated to promoting farming practices and technologies (Selišnik, Verginella, 2021; Vodopivec, 2021). As a key figure within the Slovene nationalist movement (Kosi, Stergar, 2016), Bleiweis exemplified the broader pattern of individual figures shaping nationalist identities in the Habsburg Monarchy (Judson, 2016). His work thus influenced not only the production of scientific knowledge but also politics, a dynamic which was part of a broader trend of nationalist influence on science in the state (Feichtinger, 2012). Alongside his work for the Carniolan Agricultural Society, Bleiweis published extensively on livestock, including breed classifications. In his 1871 treatise on animal husbandry, he addressed the origins of the Noriker horse (*noriški konj*) (Bleiweis, 1871) – whose development was later attributed to breeders in Salzburg from where the breed spread to Styria and Carinthia (Novak, 1970). For this study, the accuracy of Bleiweis's claims is less critical than the mechanisms he employed to establish breed lineage.

Bleiweis proposed two key arguments. First, he connected the modern Noriker horse to the Roman province of Noricum, asserting that robust horses had been bred there in antiquity. Second, and more revealing of ideological influence, he sought to identify the people responsible for breeding the original Noricus horses. Citing historians such as Nestor, Schlötzer, and Gilferding, Bleiweis contended that the inhabitants of Noricum were ancient Slavs or Slovenians (Bleiweis, 1871).

His reasoning extended to philological analysis. Noting that Emperor Nero owned a horse from Noricum named *Drauco*, Bleiweis suggested the name derived either from the Drava River (*Drava* in Slavic) or from the Slavic root *zdrav* (meaning 'healthy'). He further argued that the suffix *-ko* was uniquely Slavic, implying that the Noricus horses were originally bred by Slavs. His conclusion was explicit: "Thus, there is ample evidence that Noriker horses descend from Slovenian stock, and that Nero's Drauco drew his strength from the sweet hay and wholesome oats of Slovenian soil" (Bleiweis, 1871: 34).

Bleiweis's work exemplifies how historiographical and philological methods were employed to construct early breed histories, particularly with an emphasis on identifying the peoples who supposedly bred them. The central purpose of this paper is not to question whether the inhabitants of Roman Noricum should be considered Slavs, nor whether there was continuity between ancient Noricus horses and modern Noriker horses. Rather, it is to show the mechanisms of nationalism's influence on classification of livestock. By relating the breed to specific historic peoples, emphasizing a

certain Slovenian quality of the stock, including its development feeding on produce of Slovenian soil, Bleiweis imbued the category with a series of ideological propositions of the contemporary period.

Contingent nationalist worldviews were also reflected in the slightly later and much richer writings of Adolf Gstirner (1855-1940), a Styrian-Austrian high school teacher, alpinist and a scholar of animal husbandry history who published extensively on cattle breeds in Austria in the early 20<sup>th</sup> century. Gstirner's work explicitly expressed connections between peoples and breeds, stating that breeds such as Arab horses, Romanian pigs, and Hungarian cattle show that such breeds were primarily bred by their respective peoples, so Arabs, Romanians, and Hungarians; or that they originated with these peoples (Gstirner, 1923a). Trying to identify groups of cattle connected to peoples in Styria, Gstirner was faced with an issue, which shaped his classification. Modern breeds of cattle in Styria were neither named after some historical political toponyms, nor after ethnic groups that would for the author signify origin with a particular national group. This is why Gstirner turned to other types of information.

At the core of his investigation was the establishment of two larger categories of cattle in Styria, which correspond to national groups in Styria: Slovenian and German cattle. The establishment of such categories was done by investigating the origin of animals. Gstirner started citing a list of seven officially recognized "native" (*einheimisch*) breeds in Styria. He excluded five of them (Brown and Grey Swiss, Pinzgau, Mariahofer, and Murbodner cattle) due to their foreign origin or too recent development. He concluded that the remaining two, the monochrome light coloured Mürztal and pied coloured Bergscheck should be considered as native to Styria (Gstirner, 1923a).

But these two categories also had to be connected to certain historic peoples so as to qualify them for incorporation into specific nationally inspired categories. Starting with antique Roman authors like Strabo (Gstirner, 1923a), Columella, and Pliny the Elder (Gstirner, 1923b), Gstirner focused on visual descriptions of antique Illyrian cattle in territories which became Styria (Gstirner, 1923c). Running on the assumption that settlers bring their cattle with them, he supposed that the Illyrian cattle were superseded by cattle of Slavic and Bavarian newcomers to the territory. This is why for him it was crucial to research a migration pattern for Styria, which would show areas first inhabited either by Bavarians or Slavs. As existing historiographical scholarship portrayed Northern and Northwestern Styria as being colonized by Bavarians while simultaneously being mostly inhabited by coloured and pied cattle of the Bergschecke category, Gstirner concluded that such cattle must be German, while southern, central, and eastern territories of Styria were first supposedly settled by Slavs and in these territories the monochrome light skinned Mürztal cattle was most numerous, which led him to the conclusion that light-skinned cattle must be considered Slavic (Gstirner, 1923c).

This was also supported with other sources, such as *Ottokar's Ryhmed Chronik* from the 14<sup>th</sup> century, which discussed the enthronement of a German duke, as Gstirner

pointed out, who according to the chronic held a pied bull in one of his hands. For Gstirner the implication was clear, this could only be a Bergschecke, also commenting that “it is very telling, that a German duke [was depicted], as we will find out later, with German cattle” (Gstirner, 1923d: 6). The analysis of his works displays several key influences. For one he projected the categories of German and Slavic cattle into premodern periods, implying Slavic and German peoples were rigid ethnic identities also characterized by adhering to breeding specific breeds, which they understood as symbols of their ethnic identity.

Gstirner followed through with analysis of a selection of early modern probate inventories, which among other possessions also documented cattle. Although the authors who created these documents rarely recorded the animals’ coat colours, Gstirner used the occasional mentions of colours as a justification for asserting the continuity in the characteristics of cattle in Styria. He concluded his investigation with a crucial view, arguing that the historical documentation justified talking about “German and Slovenian cattle” and that “the breeds remained as constant as nations of men” (Gstirner, 1923e: 14). Gstirner’s work reveals the influence of contemporary understanding of Styria as a land inhabited and split among two distinct modern nations, an ideology that significantly shaped classification of modern cattle breeds and their supposed ancestors.

### **State institutionalization of native breeds**

The association of livestock breeds with modern nations continued beyond the interwar period. A further example of nationalist influence on breed classification emerges in 21<sup>st</sup>-century Slovenia through the work of zootechnician Andrej Šalehar and his research colleagues. Their investigations into the origins of native breeds, particularly the Ljutomerski Kasač horse, underscore how modern scholarship continues to frame livestock history as a question of national ownership. In a 2014 publication Šalehar explicitly framed the debate around native breeds in terms of contested heritage, noting that the central question in contemporary discussions is “where and how did our native breeds come into existence, and oftentimes, whose are these breeds” (Šalehar, 2014: 3). This phrasing reveals the underlying ideological thrust of such research: the characterization of breeds is evidently not solely about biological traits but rather also about using historical documentation for asserting proprietary claims tied to national identity. By emphasizing the need to determine “ownership” of breeds by specific nationalities, Šalehar’s work illustrates how classification systems serve to legitimize cultural claims. The focus on breed origins thus transcends zoological inquiry, functioning instead as a mechanism to embed livestock within nationalist narratives.

Šalehar and his team of zootechnicians undertook comprehensive efforts to systematically document and validate the histories of breeds they classified as

“Slovenian native breeds” (*slovenske avtohtone pasme*).<sup>1</sup> Their meticulous research involved gathering archival evidence, historical breeding records, and genetic data to construct detailed lineages demonstrating indigenous development within Slovenian territory. This rigorous methodology was not merely academic but served a specific national framework, as clearly outlined in their published works. The researchers explicitly tied their investigations to Slovenia’s legal definitions, which establish three strict criteria for native breed recognition: first, conclusive evidence that the breed originated within the borders of modern Slovenia; second, documentation showing territories which are presently in Slovenia as the primary site of the breed’s development; and third, verifiable records of continuous breeding practices within the present Slovenian territory (Šalehar et al., 2013).

This classification system operates as more than a zoological categorization – it functions as a mechanism that determines which animals qualify as national heritage. By requiring documented proof of origins within the borders of modern Slovenia, the process effectively creates a binary taxonomy of livestock: (1) those officially recognized as Slovenian native breeds, and (2) those categorized as foreign.<sup>2</sup> This classification has concrete results. Once a breed achieves native status, it becomes institutionalized within state protection programs, qualifying for conservation measures (*Cikasti Zvonček*, 2008).

The case of the Cika cattle breed offers an illuminating example of how agricultural scholars have employed established methodologies for studying breed origins to justify the designation of the Cika breed as a Slovenian native breed, a classification that was subsequently institutionalized by the state. This process was not an isolated event but part of a broader historical development in which the concept of native breeds gained prominence in agricultural discourse. As documented in *On the Origin of the Slovenian Cika Cattle*, the conservation of native breeds became a significant concern in Slovenia beginning with 1992. The formal recognition of the Cika breed was further consolidated in 2001, when breeders were organized under the Association of Autochthonous Cika Cattle Breeders in Slovenia, followed by the establishment of an official breeding program in 2005 (Simčič et al., 2013).

Analysis of Cika cattle breeding records demonstrates how Slovenian zootechnical literature constructed native breed identity through establishing territorial origins of the breed while emphasizing the supposed ethnic identity of historical breeders. The documentation traces the Cika’s alleged lineage to “Slovenian” settlers who purportedly brought ancestral cattle to what is today Slovenian territory (*Rejski Program*, 2019). By asserting that these late antique or early medieval animals contributed to the Cika’s

<sup>1</sup> *Avtohtone pasme* is translated from Slovenian into English either as “native breeds” (Vičar, 2018) or “autochthonous breeds” (Simčič et al., 2013).

<sup>2</sup> The Republic of Slovenia also recognises the so-called traditional breeds which were not created in the historic territories of Slovenia, but are bred there for prolonged time (Bojkovski et al., 2014).

development, the narrative creates continuity between the modern Cika breed and its supposed ancestors, reinforcing national ownership claims through historical genealogy.

What makes the case of the Cika breed especially revealing is the explicit acknowledgment by Slovenian zootechnical researchers of the contested nature of its nativeness. Zootechnician Mojca Simčič and her colleagues directly confronted the question of whether the Cika cattle “should still be considered as an autochthonous breed” (Simčič et al., 2013: 489). During the 20<sup>th</sup> century the breed was cross-bred with Austrian Pinzgauer cattle, while by 1976 breeders were legally required to inseminate their cattle with semen from either imported Pinzgauer or crossed Cika sires. In 2002 some 300 unregistered Cika cattle were found in the mountainous regions of Slovenia, which were possibly free of Pinzgauer influence, as it was found that some breeders defied the legal requirements.

Simčič and her colleagues analyzed blood samples from 93 cows and blood or semen from 57 sires to analyze Cika cattle’s genetic variability and their relation to Pinzgauer and other Central European breeds. Despite the expressed hesitations, the genetic analysis has shown that there was some mixing of Cika cattle with Pinzgauer introgression ranging from 46% to 5%, which still led the zootechnicians to reaffirm the breed’s status as “the only authentic and autochthonous cattle breed” and an integral part of “Slovenian cultural heritage” (Simčič et al., 2013: 492). This shows that while investigations of historical documents were complemented with investigation of the genetic composition of selected Cika cattle, the findings were again interpreted in the framework influenced by contingent understandings of native national breeds.

Following Althusser’s concept of spontaneous ideology, the presented cases show how scientists imbue their scientific investigations with nationalist discourse, thus actively shaping scientific knowledge according to their national worldviews (Althusser, 1990). This means that in the end, the classification of breeds as national breeds does not emerge from a neutral analysis of inherent biological traits – whether phenotypic characteristics or genealogical data – but rather from specific ideological interpretations of the selected data. This process operates by reframing scientific inquiry around historically contingent notions of national identity. At its core, it shifts the focus to specific questions such as: Which historical societies allegedly developed these animals? How are they linked to modern nations? What entitlements does this connection confer? By foregrounding these concerns, the discourse conceptualizes breeds as national cultural heritage as noted in the previous paragraph —variously cast as a source of “national pride” or as a “symbol of Slovenian natural heritage,” in line with Branislava Vičar’s analysis of narratives surrounding Slovenian native breeds (Vičar, 2018: 138).

## Conclusions

As I have demonstrated with three case studies in the Carniolan and Styrian territories of Austria-Hungary, the Republic of Slovenia, and the Republic of Austria, livestock classification systems are also shaped by ideology in order to classify and define breeds within corresponding ideological framework(s). This influence was exhibited by the appropriation of the core methodological approach for classifying and conceptualizing individual breeds – investigating breed origins – which was systematically directed towards producing conclusions that serve an ideological function. This demonstrates that nationalist ideology need not replace scientific methods like pedigree analysis, archival research or genetic testing; rather, it appropriates them, framing the inquiries and interpretations to align breeds with specific national identities.

Within the context of particular historical circumstances of emerging nationalism, individual scholars of animal husbandry in the historical territories of Carniola and Styria were influenced to formulate livestock classification systems that categorized breeds according to the ethnic or national identity of their original breeders, and the territorial origin of the breeds. This resulted in the formation of two distinct categories of breeds: native and foreign. These conceptions were first formulated by 19<sup>th</sup>-century agricultural experts and were sporadically developed to their present form by 21<sup>st</sup>-century academic zootechnicians. As shown with the case of the Cika cattle, the investigations have concrete political and economic effects, influencing state policies to provide legal and material support for conservation of the so-called “native breeds”.

Consequently, this demonstrates that livestock classification is not a purely scientific endeavour but rather a sociopolitical one. By interrogating its historical development, we reveal how knowledge production in agricultural science has been, and continues to be, shaped by political ideology, such as nationalism.

## 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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### **Vzrejanje nacionalizma: spočetje avtohtonih pasem**

Prispevek obravnava vpliv nacionalizma na oblikovanje sistemov klasificiranja kmetijskih živali na območjih Kranjske in Štajerske od 19. do 21. stoletja. Članek z analizo živinorejske literature in rejske dokumentacije prikazuje oblikovanje specifičnega pojmovanja avtohtonih pasem, ki je postalo sredstvo za utrjevanje nacionalnih identitet. V tem oziru študija prikazuje zgodovinske dejavnike oblikovanja sistemov klasifikacije kmetijskih živali.

Raziskava uvodoma predstavi razvoj sistema klasifikacije kmetijskih živali v pasme, ki je temeljil na novih parametrih in metodah merjenja dimenzij med telesnimi deli. Avtor raziskave kot ključne akterje modernega pasemskega klasificiranja identificira državno administracijo, kmetijske družbe in kmetijske strokovnjake v Habsburški monarhiji. Slednji so zavoljo gospodarske optimizacije živinoreje po vodilih državne ekonomske politike razvili in uveljavili metode sledenja izvora posameznih skupin živali. Nekateri kmetijski strokovnjaki so te metode uporabili za karakterizacijo pasem in njihovo interpretacijo v skladu z narativi o narodnem izvoru. Osrednji argument članka podpirajo tri ključne študije primerov: (1) poskusi Bleiweisa v 19. stoletju, ki je uporabil zgodovinske in jezikoslovne dokaze za vzpostavitev kontinuitete med antičnimi in sodobnimi konji ter s tem oblikoval povezave med zgodnjimi slovanskimi ljudstvi in sodobnimi Slovenci, (2) medvojne raziskave Adolfa Gstirnerja, ki je poskušal vzpostaviti sistem klasifikacije goveda v »nemške« in »slovanske« predstavnike na podlagi kožeha, in (3) raziskave slovenskih zootehnikov v 21. stoletju, ki so (so)oblikovali in uveljavili koncept »slovenskih avtohtonih pasem«.

Prispevek v zaključku poudarja trajno politizacijo klasifikacije živine za doseganje konkretnih nacionalnih interesov ter s preučevanjem zgodovinskega razvoja klasifikacije kaže, kako nacionalne države institucionalizirajo pasme in si jih prilastijo, kot nacionalno kulturno dediščino.